

Bt Cotton Evaluation Report (2025-26)

Central Zone



The Director

All India Coordinated Research Project on Cotton
ICAR-Central Institute for Cotton Research, Nagpur
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Bt Cotton Evaluation Report

Central Zone

Annual Report: 2025-26



The Director
ICAR-Central Institute for Cotton Research,
Nagpur, Maharashtra
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Omissions and errors, if any, are not deliberate and are regretted.

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Initial Evaluation Trial of Intra-Hirsutum Bt Hybrids in Central Zone - Irrigated

Constitution of Trial

The trial was constituted with 26 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

S. No.	Code-I	Code -II	Entries	Sponsored by
1	10	52001	US 722 BGII	SeedWorks International Limited
2	18	52002	PCH 2494 Bt2	Prabhat Agri Biotech Limited
3	26	52003	GJBHH-2204 BG-II	JAU, Junagadh (Gujarat)
4	1	52004	NBC 2020 BG II (ZC2)	
5	11	52005	TBG 23/20 BG II	Cotton research Station, Talod
6	19	52006	VPCH-456 BG II	Vanapamula Seeds Private Limited
7	25	52007	DC5107 BGII	Rallis India Limited
8	2	52008	US 723 BGII	SeedWorks International Limited
9	12	52009	GSBHH 230 BGII	NAU, Surat
10	20	52010	KCH9264 BGII	Kaveri Seed Company Ltd.
11	28	52011	RCH1196BGII	Rasi Seeds Private Limited
12	3	52012	BIOSEED 6004 BGII	Bioseed Research India
13	13	52013	RAHH 1001 BGII	UAS, Raichur
14	21	52014	Core 106 BG II	Coregenes Seed Research (I) Pvt Ltd
15	4	52015	RCH1199BGII	Rasi Seeds Private Limited
16	14	52016	G.Cot.Hy-22 BG-II	JAU, Junagadh (Gujarat)
17	22	52017	GSBHH 225 BGII	NAU, Surat
18	5	52018	VSCH - 522 BG II	Veda Seed Sciences Private Limited
19	15	52019	C 9341 BGII	Mahyco Pvt Ltd
20	23	52020	KCH9266 BGII	Kaveri Seed Company Ltd.
21	6	52021	ECH 999 BG II	Eldorado Agritech Pvt. Ltd.
22	16	52022	KCH9265 BGII	Kaveri Seed Company Ltd.
23	24	52023	RAHH 1003 BGII	UAS, Raichur
24	7	52024	NBCH-6737 BG II	Navbharat Seeds Pvt Limited
25	17	52025	TBG 23/22 BG II	Cotton research Station, Talod
26	27	52026	NCS 2025 Bt2	Nuziveedu Seeds Limited
27	9	52027	PRCH 2799 Bt2 (ZC1)	
28	8	52028	PRCH 7557 Bt2	Pravardhan Seeds (P) Limited

The trial was conducted in ten different locations viz., Junagadh, Talod, Rahuri, Khandwa, Bhawanipatna, Aurangabad (Kaveri Seed Company Ltd.), Jalna (Eldorado), Gangapur (SeedWorks), Barwani (Nuziveedu) and Jalgaon (Core Seeds).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	145.0	114.0	149.0	183.8	131.0	138.0	186.9	160.0	156.0	158.2	152.2
2	PCH 2494 Bt2	138.0	125.7	139.3	188.3	138.6	140.5	171.9	161.7	163.0	158.0	152.5
3	GJBHH-2204 BG-II	143.0	112.0	124.7	172.3	116.6	148.9	156.9	130.0	146.0	158.4	140.9
4	NBC 2020 BG II (ZC2)	134.0	89.0	135.7	166.0	127.8	135.5	181.9	155.0	124.0	159.3	140.8
5	TBG 23/20 BG II	122.0	108.0	135.7	171.4	119.6	144.1	175.3	141.7	170.0	158.6	144.6
6	VPCH-456 BG II	153.0	111.7	150.0	192.6	120.8	147.9	188.6	160.0	173.0	158.4	155.6
7	DC5107 BGII	120.0	101.0	132.0	148.0	100.2	136.9	170.3	146.7	148.0	158.3	136.1
8	US 723 BGII	158.0	102.7	140.7	172.3	127.3	153.6	183.6	153.3	159.0	158.0	150.9
9	GSBHH 230 BGII	135.0	140.0	159.0	188.6	137.7	161.3	188.6	164.0	156.0	157.2	158.7
10	KCH9264 BGII	146.0	125.3	143.0	174.9	136.7	140.1	171.9	155.0	124.0	159.0	147.6
11	RCH1196BGII	139.0	114.0	130.2	170.1	144.5	138.1	163.6	161.7	148.0	157.1	146.6
12	BIOSEED 6004 BGII	144.0	126.0	135.0	176.1	143.8	167.7	193.6	171.7	130.0	158.3	154.6
13	RAHH 1001 BGII	131.0	128.3	136.7	165.6	129.5	146.3	193.6	161.7	141.0	158.7	149.2
14	Core 106 BG II	156.0	149.0	136.7	207.5	131.8	174.1	208.6	183.3	147.0	161.5	165.6
15	RCH1199BGII	133.0	119.7	121.3	166.9	136.5	140.5	170.3	141.7	140.0	157.3	142.7
16	G.Cot.Hy-22 BG-II	155.0	137.0	115.3	180.6	138.7	157.1	170.3	145.0	142.0	158.0	149.9
17	GSBHH 225 BGII	154.0	125.7	111.0	185.4	138.8	170.3	200.3	173.3	142.0	158.9	156.0
18	VSCH - 522 BG II	146.0	108.7	120.3	189.7	144.8	156.3	181.9	161.7	156.0	158.6	152.4
19	C 9341 BGII	153.0	109.0	125.7	170.4	137.0	148.1	190.3	158.3	141.0	158.3	149.1
20	KCH9266 BGII	152.0	122.3	128.7	153.5	133.6	135.2	180.3	161.7	144.0	158.7	147.0
21	ECH 999 BG II	135.0	91.7	142.0	172.3	123.1	143.5	180.3	146.7	177.0	157.7	146.9
22	KCH9265 BGII	132.0	90.0	139.0	170.5	142.9	153.0	186.9	171.7	198.0	157.8	154.2
23	RAHH 1003 BGII	146.0	92.3	129.3	152.1	141.2	140.0	165.3	143.3	146.0	158.2	141.4
24	NBCH-6737 BG II	118.0	107.0	100.7	146.7	142.5	135.9	160.3	131.7	147.0	157.8	134.8
25	TBG 23/22 BG II	146.0	89.7	131.7	160.1	132.3	151.6	180.3	133.3	179.0	156.9	146.1
26	NCS 2025 Bt2	124.0	106.7	118.0	161.1	146.7	138.3	168.6	150.0	147.0	157.2	141.8
27	PRCH 2799 Bt2 (ZC1)	140.0	94.7	115.3	162.7	114.7	126.3	175.3	153.3	156.0	157.7	139.6
28	PRCH 7557 Bt2	153.0	108.7	134.0	179.3	130.4	146.7	193.6	156.7	171.0	156.9	153.0
	CD @ 5%	16.8	9.74	10.0	18.5	21.2	19.6	5.9	12.6			
	CV%	7.3	5.29	4.6	7.7	9.8	8.1	17.7	5.0			

Table: Number of monopodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	1.0	2.5	2.3	0.5	2.0	1.5	3.3	2.0	4.0	1.1	2.0
2	PCH 2494 Bt2	1.4	2.3	2.3	0.7	2.4	1.7	2.1	2.0	3.0	1.2	1.9
3	GJBHH-2204 BG-II	2.0	3.3	2.8	2.3	3.1	3.7	3.9	4.0	12.0	0.9	3.8
4	NBC 2020 BG II (ZC2)	1.0	2.3	2.6	0.7	2.9	1.7	2.3	2.0	4.0	1.3	2.1
5	TBG 23/20 BG II	2.2	2.6	2.2	1.1	2.7	2.4	2.1	1.3	4.0	1.1	2.2
6	VPCH-456 BG II	1.6	1.0	2.6	1.3	2.5	2.1	3.0	2.0	4.0	1.3	2.1
7	DC5107 BGII	0.3	1.4	1.9	0.7	2.2	1.3	3.0	2.0	4.0	1.2	1.8
8	US 723 BGII	0.6	2.2	2.2	1.2	3.3	1.8	2.5	2.0	4.0	1.2	2.1
9	GSBHH 230 BGII	2.8	3.4	1.9	1.1	3.2	3.0	2.1	2.0	5.0	1.2	2.6
10	KCH9264 BGII	1.2	2.0	1.6	0.3	2.0	2.1	2.5	3.0	4.0	1.0	2.0
11	RCH1196BGII	1.6	2.5	2.0	1.5	2.9	2.7	2.1	2.0	5.0	1.2	2.4
12	BIOSEED 6004 BGII	1.0	1.5	1.7	0.2	2.2	1.5	1.0	3.0	1.0	1.3	1.4
13	RAHH 1001 BGII	0.8	1.8	1.8	0.5	2.8	1.9	2.0	2.0	4.0	1.1	1.9
14	Core 106 BG II	1.2	1.9	1.9	0.6	2.8	1.7	1.9	2.0	4.0	0.9	1.9
15	RCH1199BGII	2.2	2.0	1.9	1.3	2.4	2.1	2.5	2.0	4.0	1.3	2.2
16	G.Cot.Hy-22 BG-II	3.0	5.1	2.2	1.7	2.8	2.9	2.7	3.0	5.0	1.0	2.9
17	GSBHH 225 BGII	1.4	3.3	2.2	1.1	2.8	2.6	3.0	2.0	5.0	1.3	2.5
18	VSCH - 522 BG II	1.4	1.0	2.1	1.3	3.2	1.9	2.3	2.0	4.0	1.1	2.0
19	C 9341 BGII	0.4	2.4	1.9	1.1	2.5	2.1	2.5	2.0	5.0	1.0	2.1
20	KCH9266 BGII	0.3	1.2	2.0	0.7	2.8	1.7	2.7	2.0	3.0	1.3	1.8
21	ECH 999 BG II	0.4	1.8	2.0	0.5	2.2	1.4	2.0	1.3	3.0	1.2	1.6
22	KCH9265 BGII	1.2	1.3	1.9	0.5	1.9	1.3	2.1	2.0	2.0	1.1	1.5
23	RAHH 1003 BGII	0.4	0.5	2.2	0.2	2.0	1.7	1.9	1.0	3.0	1.1	1.4
24	NBCH-6737 BG II	1.6	1.1	1.9	1.4	2.5	1.1	2.7	3.0	4.0	1.3	2.1
25	TBG 23/22 BG II	1.2	1.7	1.8	1.6	2.3	2.9	2.6	2.0	5.0	1.1	2.2
26	NCS 2025 Bt2	1.2	1.6	1.9	0.7	2.3	1.7	2.3	2.0	4.0	1.3	1.9
27	PRCH 2799 Bt2 (ZC1)	2.0	1.8	1.9	1.2	2.5	2.1	2.3	3.0	3.0	1.1	2.1
28	PRCH 7557 Bt2	1.6	1.4	1.9	0.4	2.0	1.5	1.7	2.0	3.0	1.2	1.7
	CD @ 5%	0.3	0.34	NS	NS	0.7	0.5	16.4	0.2			
	CV%	15.1	10.32	23.3		17.2	16.1	0.6	7.0			

Table: Number of sympodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	18.5	23.7	15.9	27.2	20.5	22.5	17.7	17.3	19.0	22.6	20.5
2	PCH 2494 Bt2	16.5	19.1	14.8	27.3	20.3	22.3	15.5	18.0	20.0	24.1	19.8
3	GJBHH-2204 BG-II	18.7	19.7	15.7	24.9	13.5	20.9	17.1	13.3	14.0	23.3	18.1
4	NBC 2020 BG II (ZC2)	17.1	19.5	12.3	25.8	16.3	21.5	16.0	19.0	17.0	24.1	18.9
5	TBG 23/20 BG II	14.5	18.1	13.9	25.0	15.7	23.5	17.2	16.7	24.0	24.8	19.3
6	VPCH-456 BG II	20.9	18.6	10.1	26.9	19.3	23.2	16.4	18.3	24.0	23.3	20.1
7	DC5107 BGII	20.1	19.9	13.3	23.4	14.7	23.1	16.6	18.0	19.0	23.7	19.2
8	US 723 BGII	21.1	19.1	14.7	24.8	21.7	26.3	17.1	17.0	19.0	25.2	20.6
9	GSBHH 230 BGII	18.4	26.9	15.8	25.0	19.3	22.1	16.3	18.0	20.0	23.0	20.5
10	KCH9264 BGII	22.1	19.3	16.9	25.2	19.7	23.7	16.4	18.0	17.0	24.3	20.3
11	RCH1196BGII	18.5	16.1	14.2	26.2	21.0	21.2	17.7	18.7	20.0	23.2	19.7
12	BIOSEED 6004 BGII	19.1	16.8	15.2	23.3	23.8	24.1	17.5	20.0	16.0	25.2	20.1
13	RAHH 1001 BGII	21.6	18.1	14.1	22.9	20.0	23.9	15.8	16.0	17.0	23.7	19.3
14	Core 106 BG II	22.0	21.3	14.5	27.7	21.7	24.3	17.1	21.0	19.0	25.8	21.4
15	RCH1199BGII	20.0	19.4	12.9	24.7	18.2	22.8	17.0	16.0	18.0	24.5	19.4
16	G.Cot.Hy-22 BG-II	20.5	13.5	13.5	24.9	18.8	20.7	16.9	14.3	15.0	24.1	18.2
17	GSBHH 225 BGII	21.5	15.3	11.3	26.9	17.7	22.9	17.7	20.7	18.0	24.7	19.7
18	VSCH - 522 BG II	21.8	13.2	12.1	27.1	16.3	24.4	17.3	17.7	19.0	23.2	19.2
19	C 9341 BGII	22.9	14.9	15.1	25.3	17.7	24.1	18.3	18.7	19.0	24.3	20.0
20	KCH9266 BGII	21.7	15.9	15.0	24.1	17.2	23.5	17.7	18.0	20.0	25.8	19.9
21	ECH 999 BG II	19.4	10.9	17.1	25.0	18.5	25.5	17.9	18.0	21.0	23.2	19.7
22	KCH9265 BGII	19.2	15.5	19.7	22.9	19.7	23.2	16.8	20.0	25.0	25.3	20.7
23	RAHH 1003 BGII	21.3	12.8	18.5	22.1	19.7	23.9	15.1	15.0	19.0	24.4	19.2
24	NBCH-6737 BG II	20.5	12.8	14.9	24.5	22.3	23.7	17.2	16.7	19.0	23.2	19.5
25	TBG 23/22 BG II	17.6	18.3	19.1	23.2	18.8	24.4	17.7	16.3	26.0	24.3	20.6
26	NCS 2025 Bt2	19.5	16.7	15.0	22.8	18.5	21.4	16.2	16.3	19.0	25.1	19.1
27	PRCH 2799 Bt2 (ZC1)	19.3	17.1	13.3	24.0	17.3	21.0	17.5	18.3	18.0	24.7	19.1
28	PRCH 7557 Bt2	22.3	16.6	13.6	25.7	20.7	22.9	17.3	18.0	21.0	25.5	20.4
	CD @ 5%	2.0	1.90	1.9	2.7	4.3	3.2	7.7	2.3			
	CV%	6.1	6.63	8.0	7.8	13.9	8.5	2.1	8.1			

Table: Boll weight (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	5.2	5.8	6.3	5.2	6.9	5.8	6.0	5.3	6.0	5.3	5.8
2	PCH 2494 Bt2	5.2	6.8	7.1	5.2	6.6	6.1	7.0	6.1	6.6	5.3	6.2
3	GJBHH-2204 BG-II	5.1	4.4	5.7	4.8	4.4	4.4	4.5	3.7	5.0	5.3	4.7
4	NBC 2020 BG II (ZC2)	5.2	6.5	6.1	5.1	6.2	5.7	5.8	5.7	6.5	5.3	5.8
5	TBG 23/20 BG II	4.8	4.8	4.8	5.0	4.8	4.8	4.5	4.4	5.0	5.3	4.8
6	VPCH-456 BG II	4.8	5.2	4.6	4.8	5.9	4.8	4.9	5.0	6.0	5.3	5.1
7	DC5107 BGII	5.8	5.7	7.0	5.6	7.1	6.1	6.7	6.3	6.5	5.3	6.2
8	US 723 BGII	5.3	5.7	5.7	5.7	6.1	5.9	6.3	5.7	6.1	5.3	5.8
9	GSBHH 230 BGII	5.2	4.8	4.9	4.9	5.6	5.2	5.0	5.0	6.1	5.3	5.2
10	KCH9264 BGII	5.2	5.9	6.3	5.7	6.2	5.7	5.8	6.1	6.5	5.3	5.9
11	RCH1196BGII	5.3	5.5	6.2	4.7	5.0	5.3	5.3	5.9	5.0	5.3	5.4
12	BIOSEED 6004 BGII	5.1	5.5	5.6	5.4	6.2	5.8	5.6	5.6	6.4	5.3	5.7
13	RAHH 1001 BGII	4.9	5.4	5.2	5.1	4.6	5.6	5.2	5.2	6.1	5.3	5.3
14	Core 106 BG II	4.0	5.5	5.2	5.4	6.5	5.7	5.4	5.3	6.5	5.4	5.5
15	RCH1199BGII	4.4	4.9	5.1	4.8	6.2	4.3	5.0	4.9	6.1	5.3	5.1
16	G.Cot.Hy-22 BG-II	5.2	4.9	4.7	5.2	4.9	4.7	4.8	4.1	5.6	5.3	4.9
17	GSBHH 225 BGII	4.9	5.7	4.7	5.1	5.6	5.0	4.4	4.1	6.1	5.3	5.1
18	VSCH - 522 BG II	4.8	5.3	4.6	5.2	6.2	4.6	4.7	5.0	5.5	5.3	5.1
19	C 9341 BGII	5.0	5.9	5.8	6.2	5.8	5.8	5.6	5.4	6.5	5.3	5.7
20	KCH9266 BGII	5.0	6.2	6.1	5.5	6.4	5.6	5.7	6.0	6.1	5.3	5.8
21	ECH 999 BG II	5.0	5.5	5.7	5.4	4.9	5.9	5.8	5.1	5.0	5.4	5.4
22	KCH9265 BGII	5.2	5.0	5.2	5.3	5.3	5.5	5.3	5.5	5.5	5.3	5.3
23	RAHH 1003 BGII	5.0	6.1	5.5	5.3	5.4	5.6	6.1	5.9	5.6	5.3	5.6
24	NBCH-6737 BG II	5.0	5.5	5.3	5.1	5.6	5.4	5.7	5.1	5.5	5.3	5.4
25	TBG 23/22 BG II	4.4	4.9	5.0	5.4	4.3	4.2	4.3	5.2	5.0	5.3	4.8
26	NCS 2025 Bt2	5.2	5.9	6.3	5.5	5.3	6.2	6.4	5.9	6.4	5.3	5.8
27	PRCH 2799 Bt2 (ZC1)	4.9	5.4	5.9	5.3	5.2	5.5	5.9	5.8	6.1	5.3	5.5
28	PRCH 7557 Bt2	5.2	6.6	6.1	5.8	5.8	5.9	5.7	5.8	6.7	5.3	5.9
	CD @ 5%	0.5	0.76	0.3	0.7	0.5	0.4	5.5	0.6			
	CV%	6.1	8.37	2.9	9.4	5.8	4.7	0.5	7.2			

Table: Number of bolls / plant in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	33.8	33.2	55.7	37.1	39.2	51.7	42.1	47.3	61.1	45.0	44.6
2	PCH 2494 Bt2	29.5	26.3	44.7	32.6	36.5	49.1	44.1	51.0	60.6	46.6	42.1
3	GJBHH-2204 BG-II	32.2	62.1	23.5	30.3	23.9	44.5	43.5	50.3	39.5	47.6	39.7
4	NBC 2020 BG II (ZC2)	30.5	29.4	43.5	32.0	30.2	34.9	41.2	44.0	56.5	47.2	38.9
5	TBG 23/20 BG II	27.8	31.7	37.9	28.7	26.7	44.9	42.2	43.7	55.5	48.6	38.8
6	VPCH-456 BG II	32.1	36.7	33.1	38.5	33.5	47.1	40.8	56.7	64.0	51.6	43.4
7	DC5107 BGII	26.5	28.4	43.0	27.4	26.8	52.9	44.0	45.0	60.4	48.4	40.3
8	US 723 BGII	30.5	33.3	48.3	36.3	38.3	55.0	42.1	46.7	59.3	47.2	43.7
9	GSBHH 230 BGII	28.1	41.8	72.6	27.7	30.5	36.5	40.1	37.0	45.2	49.4	40.9
10	KCH9264 BGII	35.6	34.9	44.2	42.5	34.0	42.0	43.3	55.3	57.8	48.8	43.8
11	RCH1196BGII	31.6	25.9	53.9	30.5	40.0	47.4	44.8	53.3	62.2	46.2	43.6
12	BIOSEED 6004 BGII	33.0	25.6	46.5	43.1	40.2	58.5	45.8	58.3	57.5	49.8	45.8
13	RAHH 1001 BGII	22.5	27.2	40.1	41.1	37.3	41.1	39.9	51.0	63.9	49.6	41.4
14	Core 106 BG II	42.8	23.2	49.7	34.7	41.1	55.9	40.3	48.3	53.5	56.3	44.6
15	RCH1199BGII	32.1	37.8	42.5	25.4	39.5	46.2	41.3	58.0	59.1	49.8	43.2
16	G.Cot.Hy-22 BG-II	36.4	37.6	43.4	30.8	33.8	41.1	42.1	53.7	41.4	49.2	41.0
17	GSBHH 225 BGII	26.0	19.5	39.6	32.5	35.2	35.5	40.1	42.7	53.2	46.6	37.1
18	VSCH - 522 BG II	31.4	31.0	51.9	29.6	32.8	44.9	37.1	54.3	63.7	48.4	42.5
19	C 9341 BGII	38.1	24.5	47.9	41.2	34.8	52.7	42.8	53.7	47.1	48.8	43.2
20	KCH9266 BGII	27.5	37.1	67.9	43.9	31.5	43.9	41.1	61.7	64.9	49.2	46.9
21	ECH 999 BG II	23.5	22.1	58.0	33.6	30.5	56.3	41.4	44.0	56.9	57.8	42.4
22	KCH9265 BGII	34.5	41.2	79.4	42.9	33.7	54.4	40.6	66.3	66.2	48.2	50.7
23	RAHH 1003 BGII	22.7	28.2	53.5	41.5	39.3	41.6	44.0	46.7	67.3	49.8	43.5
24	NBCH-6737 BG II	25.1	25.2	55.4	35.9	42.2	33.3	40.2	48.0	60.9	47.4	41.4
25	TBG 23/22 BG II	30.4	24.1	56.4	30.8	33.8	38.5	45.6	46.3	57.1	50.0	41.3
26	NCS 2025 Bt2	22.6	25.8	50.2	34.1	33.1	41.2	42.8	45.0	64.1	52.4	41.1
27	PRCH 2799 Bt2 (ZC1)	28.8	30.1	45.7	29.7	36.8	38.9	40.5	46.7	62.3	46.0	40.6
28	PRCH 7557 Bt2	28.1	26.7	56.0	33.9	38.0	37.2	40.0	51.7	66.5	47.4	42.6
	CD @ 5%	6.2	2.73	5.7	7.4	4.3	6.1	8.6	8.7			
	CV%	12.6	15.22	7.1	15.4	7.5	8.2	5.9	10.5			

Table: Number of bolls / sq.m. in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	70.1	61.4	76.8	113.6	74.3	82.1	58.5	65.7	53.4	69.3	72.5
2	PCH 2494 Bt2	61.8	48.6	61.6	99.3	68.0	77.9	61.3	70.8	52.5	71.8	67.4
3	GJBHH-2204 BG-II	67.1	115.0	32.4	91.9	45.0	70.7	60.2	69.9	34.8	73.3	66.0
4	NBC 2020 BG II (ZC2)	63.9	54.4	60.0	97.4	57.7	55.3	57.2	61.1	49.4	72.7	62.9
5	TBG 23/20 BG II	58.4	58.8	52.3	86.7	53.7	71.3	58.6	60.6	49.0	74.8	62.4
6	VPCH-456 BG II	66.3	68.0	45.7	118.1	64.7	74.8	56.7	78.7	56.4	79.5	70.9
7	DC5107 BGII	55.5	52.6	59.3	82.7	50.3	83.9	61.1	62.5	53.7	74.5	63.6
8	US 723 BGII	63.3	61.7	66.6	111.1	76.5	87.3	58.5	64.8	51.9	72.7	71.4
9	GSBHH 230 BGII	59.3	77.3	100.2	83.5	61.0	57.9	55.6	51.4	39.2	76.1	66.2
10	KCH9264 BGII	74.3	64.6	61.0	131.1	68.0	66.7	60.2	76.9	50.9	75.2	72.9
11	RCH1196BGII	65.1	48.0	74.4	92.5	80.0	75.2	62.2	74.1	54.8	71.1	69.7
12	BIOSEED 6004 BGII	68.9	47.4	64.1	133.0	80.3	92.8	63.6	81.0	49.8	76.7	75.8
13	RAHH 1001 BGII	47.5	50.3	55.3	126.4	74.0	65.2	55.5	70.8	56.8	76.4	67.8
14	Core 106 BG II	88.9	43.0	68.5	106.1	82.2	88.8	55.9	67.1	46.3	86.8	73.4
15	RCH1199BGII	67.1	70.1	58.7	76.3	79.0	73.3	57.4	80.6	52.5	76.7	69.2
16	G.Cot.Hy-22 BG-II	75.6	69.6	59.9	93.6	67.0	65.2	58.5	74.5	35.9	75.8	67.6
17	GSBHH 225 BGII	54.9	36.1	54.6	98.9	70.3	56.3	55.7	59.3	46.5	71.8	60.4
18	VSCH - 522 BG II	65.3	57.3	71.7	89.7	65.5	71.2	51.6	75.5	56.1	74.5	67.8
19	C 9341 BGII	78.8	45.4	66.1	126.8	69.5	83.6	59.4	74.5	40.8	75.2	72.0
20	KCH9266 BGII	58.1	68.6	93.7	135.6	62.7	69.7	57.1	85.6	56.7	75.8	76.4
21	ECH 999 BG II	48.9	41.0	80.0	102.5	61.0	89.3	57.5	61.1	50.2	89.0	68.1
22	KCH9265 BGII	71.1	76.3	109.6	132.4	67.5	86.3	56.4	92.1	58.8	74.2	82.5
23	RAHH 1003 BGII	47.7	52.2	73.9	131.8	78.0	66.0	61.1	64.8	59.3	76.7	71.2
24	NBCH-6737 BG II	53.1	46.7	76.5	109.8	84.3	52.8	55.8	66.7	52.8	73.0	67.2
25	TBG 23/22 BG II	63.1	44.7	77.8	93.6	67.0	61.1	63.3	64.4	50.3	77.0	66.2
26	NCS 2025 Bt2	48.9	47.8	69.3	104.0	66.2	65.4	59.4	62.5	56.5	80.7	66.1
27	PRCH 2799 Bt2 (ZC1)	60.1	55.8	63.1	89.9	72.8	61.7	56.3	64.8	54.0	70.8	64.9
28	PRCH 7557 Bt2	59.2	49.4	73.1	103.4	75.2	59.0	55.6	71.8	58.6	73.0	67.8
	CD @ 5%	12.4	14.34	7.9	23.7	8.3	9.6	8.6	12.0			
	CV%	12.1	15.22	7.1	16.1	7.3	8.2	8.2	10.5			

Table: Lint Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	5.4	5.1	5.5	5.9	4.2	5.5	5.4	5.3	6.1	6.1	5.5
2	PCH 2494 Bt2	6.2	6.1	5.9	6.6	7.5	6.0	6.7	6.4	5.7	6.4	6.3
3	GJBHH-2204 BG-II	5.4	5.1	3.8	5.1	4.3	4.7	4.3	4.6	4.6	5.9	4.8
4	NBC 2020 BG II (ZC2)	5.8	5.8	4.5	5.6	5.2	5.3	5.3	4.4	4.8	6.6	5.3
5	TBG 23/20 BG II	5.0	5.5	4.4	5.3	4.5	5.2	6.5	4.8	5.0	6.2	5.2
6	VPCH-456 BG II	5.6	5.5	6.3	5.7	5.5	5.7	5.5	5.8	5.2	6.4	5.7
7	DC5107 BGII	5.6	5.2	6.5	6.5	5.7	5.8	5.3	5.7	5.5	5.7	5.8
8	US 723 BGII	6.1	5.7	6.8	6.9	6.1	6.0	6.3	6.2	6.9	6.7	6.4
9	GSBHH 230 BGII	5.5	6.2	5.3	5.4	4.3	5.4	5.9	5.1	5.9	6.1	5.5
10	KCH9264 BGII	6.3	5.5	6.7	5.7	6.1	5.4	5.4	5.3	6.0	6.6	5.9
11	RCH1196BGII	5.4	5.5	6.1	5.8	6.3	5.2	5.1	5.1	4.7	5.8	5.5
12	BIOSEED 6004 BGII	5.5	5.7	4.8	6.2	5.1	5.4	5.4	5.6	5.3	6.7	5.6
13	RAHH 1001 BGII	4.9	5.2	4.4	6.5	5.4	5.2	4.9	4.9	5.0	6.1	5.3
14	Core 106 BG II	5.7	6.0	6.2	6.1	5.7	6.4	6.5	5.9	6.1	6.4	6.1
15	RCH1199BGII	5.4	5.2	5.0	6.1	4.8	4.6	5.0	5.0	4.2	6.2	5.2
16	G.Cot.Hy-22 BG-II	6.1	5.5	4.3	5.1	4.3	4.6	5.1	5.0	4.6	6.4	5.1
17	GSBHH 225 BGII	6.0	6.5	4.5	5.1	4.5	4.8	4.8	5.2	5.5	5.8	5.3
18	VSCH - 522 BG II	5.1	5.2	5.7	5.7	5.6	5.1	4.0	5.7	5.2	6.6	5.4
19	C 9341 BGII	5.1	5.7	4.9	6.3	4.6	5.6	4.8	5.4	4.6	6.1	5.3
20	KCH9266 BGII	5.9	5.9	6.0	6.5	5.3	5.4	7.1	5.4	5.3	6.4	5.9
21	ECH 999 BG II	4.8	4.3	5.8	6.3	5.2	6.1	5.2	5.0	4.4	5.9	5.3
22	KCH9265 BGII	6.0	5.1	6.7	5.7	4.9	4.7	4.8	4.9	5.2	6.8	5.5
23	RAHH 1003 BGII	5.8	6.3	6.1	6.6	5.6	5.6	6.2	5.5	5.0	6.1	5.9
24	NBCH-6737 BG II	5.3	5.2	6.4	6.0	5.7	4.9	5.5	5.1	4.8	6.4	5.5
25	TBG 23/22 BG II	4.9	5.4	4.5	4.9	4.3	4.9	5.1	4.9	4.7	5.7	4.9
26	NCS 2025 Bt2	5.9	5.9	5.9	6.0	5.8	5.8	5.8	5.3	6.1	6.6	5.9
27	PRCH 2799 Bt2 (ZC1)	6.1	6.3	6.5	6.2	6.9	4.8	6.5	6.0	5.1	6.1	6.1
28	PRCH 7557 Bt2	5.8	5.8	5.2	6.9	6.2	5.3	5.7	5.1	5.2	6.6	5.8
	CD @ 5%	0.8	0.55			0.3	0.8	6.3	0.5			
	CV%	8.4	6.03			3.3	9.5	0.6	6.0			

Table: Seed Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	11.7	11.0	11.8	10.9	8.0	10.7	10.3	9.7	13.0	10.8	10.8
2	PCH 2494 Bt2	12.0	11.7	10.5	11.7	12.8	11.0	11.7	10.7	11.0	11.2	11.4
3	GJBHH-2204 BG-II	10.0	10.0	7.7	9.5	7.6	8.7	8.7	8.7	10.0	10.6	9.1
4	NBC 2020 BG II (ZC2)	12.0	12.3	10.2	10.2	10.1	11.0	11.0	8.3	11.0	11.4	10.8
5	TBG 23/20 BG II	9.2	10.3	8.9	9.5	8.3	9.7	9.3	8.7	10.0	11.0	9.5
6	VPCH-456 BG II	10.7	10.3	11.1	10.0	9.6	9.7	10.3	10.7	10.0	11.4	10.4
7	DC5107 BGII	11.3	11.0	12.4	11.6	10.2	11.3	11.3	10.7	12.0	10.7	11.3
8	US 723 BGII	13.0	11.7	12.4	12.5	10.3	11.0	11.7	10.7	14.0	11.6	11.9
9	GSBHH 230 BGII	9.8	11.0	10.0	9.9	8.0	9.7	11.3	9.3	11.0	10.7	10.1
10	KCH9264 BGII	11.5	11.3	11.3	11.0	10.9	10.7	11.3	9.3	13.0	11.4	11.2
11	RCH1196BGII	11.8	12.0	12.0	10.9	12.7	10.3	11.0	10.3	10.0	10.7	11.2
12	BIOSEED 6004 BGII	11.7	11.0	9.7	11.6	10.1	10.3	11.3	10.3	11.0	11.5	10.9
13	RAHH 1001 BGII	11.5	11.7	9.9	11.9	10.3	10.3	11.0	9.7	11.0	11.0	10.8
14	Core 106 BG II	10.5	10.7	11.0	10.4	10.0	10.3	11.3	9.7	12.0	11.2	10.7
15	RCH1199BGII	11.8	11.3	10.7	10.8	10.3	9.0	11.3	9.3	9.0	11.0	10.5
16	G.Cot.Hy-22 BG-II	11.2	11.0	8.5	9.1	8.2	9.0	10.0	8.7	9.0	10.6	9.5
17	GSBHH 225 BGII	11.8	12.0	9.0	9.4	8.8	9.3	9.0	9.3	10.0	11.2	10.0
18	VSCH - 522 BG II	10.8	10.3	10.4	10.1	10.2	8.7	7.7	10.3	10.0	11.1	10.0
19	C 9341 BGII	11.3	12.7	11.0	11.4	9.0	10.3	11.0	10.7	10.0	11.4	10.9
20	KCH9266 BGII	11.5	10.3	10.5	11.1	9.1	9.0	11.7	8.7	9.0	10.8	10.2
21	ECH 999 BG II	11.3	10.3	11.6	11.7	10.1	10.3	11.0	9.7	10.0	11.3	10.7
22	KCH9265 BGII	11.0	10.3	11.2	10.4	9.8	9.0	10.0	8.3	11.0	10.7	10.2
23	RAHH 1003 BGII	11.7	12.0	11.4	11.8	10.1	9.7	11.3	9.0	10.0	11.6	10.9
24	NBCH-6737 BG II	11.3	11.0	11.0	10.9	10.4	10.0	11.3	9.7	11.0	11.0	10.8
25	TBG 23/22 BG II	10.0	10.0	8.2	8.5	7.9	9.0	9.7	9.0	9.0	11.4	9.3
26	NCS 2025 Bt2	11.8	12.0	11.8	10.8	11.2	11.7	11.0	9.7	12.0	10.6	11.3
27	PRCH 2799 Bt2 (ZC1)	11.2	10.7	10.8	10.3	11.2	9.7	10.3	9.3	9.0	11.4	10.4
28	PRCH 7557 Bt2	12.5	12.7	11.2	12.0	11.2	10.7	12.0	10.3	12.0	11.1	11.6
	CD @ 5%	1.4	1.00			0.4	1.3	5.2	0.9			
	CV%	7.3	5.48			2.4	8.1	0.9	5.5			

Table: Ginning outturn (%) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	31.7	31.8	32.0	35.3	34.6	34.1	36.4	35.5	31.8	37.9	34.1
2	PCH 2494 Bt2	34.2	34.3	35.9	35.9	37.0	35.4	36.3	37.6	34.0	38.2	35.9
3	GJBHH-2204 BG-II	35.0	33.8	33.1	34.8	36.0	35.3	33.2	34.7	31.7	37.8	34.5
4	NBC 2020 BG II (ZC2)	32.7	31.9	30.6	35.4	34.2	32.8	32.7	34.5	30.5	38.2	33.4
5	TBG 23/20 BG II	35.2	34.9	33.2	36.0	35.2	35.2	34.2	35.6	33.2	37.7	35.0
6	VPCH-456 BG II	34.3	34.9	36.1	36.2	36.6	37.2	34.9	35.3	34.0	38.0	35.8
7	DC5107 BGII	33.0	32.2	34.2	35.8	35.7	33.9	31.8	34.6	31.6	38.0	34.1
8	US 723 BGII	32.0	32.7	35.3	35.6	37.4	35.4	36.9	36.6	32.9	37.9	35.3
9	GSBHH 230 BGII	35.7	36.1	34.5	35.3	34.8	35.9	34.3	35.5	34.8	37.9	35.5
10	KCH9264 BGII	35.3	32.6	37.4	37.2	35.7	33.6	35.7	36.3	31.4	38.0	35.3
11	RCH1196BGII	31.2	31.6	33.7	34.6	33.2	33.3	31.5	33.1	32.2	38.0	33.2
12	BIOSEED 6004 BGII	32.2	34.2	33.1	35.0	33.6	34.5	35.6	35.0	32.4	38.1	34.4
13	RAHH 1001 BGII	29.7	30.6	31.0	36.8	34.5	33.6	30.7	33.8	36.4	37.6	33.5
14	Core 106 BG II	35.3	36.1	35.9	37.1	36.3	38.2	36.3	37.8	33.6	38.2	36.5
15	RCH1199BGII	31.2	31.6	31.8	36.0	31.8	33.8	30.5	34.8	31.6	37.5	33.1
16	G.Cot.Hy-22 BG-II	35.2	33.1	33.4	35.7	34.5	33.9	33.8	36.7	33.7	38.4	34.8
17	GSBHH 225 BGII	33.5	35.1	33.6	35.3	34.1	34.0	34.8	35.7	35.4	37.5	34.9
18	VSCH - 522 BG II	32.2	33.4	35.2	36.0	35.6	37.0	34.7	35.7	34.1	38.4	35.2
19	C 9341 BGII	31.0	31.0	31.0	35.5	33.8	35.1	30.5	33.7	31.3	37.7	33.1
20	KCH9266 BGII	34.0	36.3	36.2	37.9	36.8	37.4	36.8	38.5	37.2	38.3	36.9
21	ECH 999 BG II	30.0	29.4	33.2	35.0	34.3	37.0	32.1	34.3	30.5	37.6	33.3
22	KCH9265 BGII	35.2	32.9	37.5	37.1	33.2	34.5	35.3	37.1	31.9	38.3	35.3
23	RAHH 1003 BGII	33.2	34.2	35.0	36.8	35.6	36.5	35.5	37.7	36.3	37.4	35.8
24	NBCH-6737 BG II	32.0	32.1	36.9	37.1	35.4	32.8	32.5	34.8	30.4	38.4	34.2
25	TBG 23/22 BG II	33.2	34.9	35.2	36.6	35.4	35.4	34.8	35.2	34.4	37.7	35.3
26	NCS 2025 Bt2	33.3	33.0	33.4	35.9	34.2	33.2	34.5	35.4	36.5	38.4	34.8
27	PRCH 2799 Bt2 (ZC1)	35.5	37.0	37.6	37.5	38.3	33.3	36.7	39.2	36.0	37.1	36.8
28	PRCH 7557 Bt2	31.5	31.3	31.5	37.1	35.8	33.3	32.1	33.1	35.3	38.5	34.0
	CD @ 5%	1.6	1.36			1.3	1.7	2.2	1.2			
	CV%	3.0	2.50			2.3	3.0	1.2	2.0			

Table: Upper Half Mean Length (mm) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	28.8	29.7	30.1	28.5	30.4	29.9	27.3	28.7	28.9	28.8	29.1
2	PCH 2494 Bt2	29.1	31.1	30.2	29.4	28.4	30.2	30.6	27.7	29.7	28.3	29.5
3	GJBHH-2204 BG-II	28.7	33.9	29.7	28.1	29.1	29.0	29.9	27.9	28.3	25.7	29.0
4	NBC 2020 BG II (ZC2)	28.9	31.2	29.9	28.1	29.9	29.4	29.4	28.3	30.2	29.5	29.5
5	TBG 23/20 BG II	29.1	30.2	28.7	27.6	30.4	28.0	26.3	26.1	26.8	27.6	28.1
6	VPCH-456 BG II	29.4	28.2	28.5	27.9	30.5	27.9	29.0	27.1	27.9	28.0	28.4
7	DC5107 BGII	29.4	31.7	31.2	28.0	30.4	28.8	29.7	29.0	29.4	29.3	29.7
8	US 723 BGII	30.9	31.1	30.1	29.7	28.5	30.5	30.3	28.5	30.8	31.5	30.2
9	GSBHH 230 BGII	29.4	29.7	27.7	27.4	31.8	28.9	26.5	27.6	27.9	29.0	28.6
10	KCH9264 BGII	28.6	29.3	30.1	28.3	29.3	28.0	29.2	27.8	28.1	27.5	28.6
11	RCH1196BGII	31.6	32.2	32.6	30.9	31.1	32.7	32.0	30.5	31.3	31.1	31.6
12	BIOSEED 6004 BGII	28.8	29.6	28.0	28.1	29.1	29.6	28.7	26.9	29.9	28.4	28.7
13	RAHH 1001 BGII	30.5	34.4	31.6	30.1	32.6	33.2	30.9	29.5	31.1	28.5	31.2
14	Core 106 BG II	27.7	29.4	27.8	26.2	31.7	28.8	28.9	27.1	27.8	28.5	28.4
15	RCH1199BGII	30.1	31.9	31.2	28.1	31.1	30.1	31.2	27.0	29.2	28.3	29.8
16	G.Cot.Hy-22 BG-II	28.0	28.0	26.1	25.9	27.5	28.0	26.7	25.5	25.3	31.8	27.3
17	GSBHH 225 BGII	28.4	30.7	27.0	27.3	28.1	27.4	27.1	25.9	27.6	28.6	27.8
18	VSCH - 522 BG II	28.2	29.1	28.3	27.2	28.5	28.6	27.6	26.3	25.9	29.5	27.9
19	C 9341 BGII	29.2	29.7	28.2	27.7	27.7	29.0	27.8	26.2	27.7	29.3	28.3
20	KCH9266 BGII	29.2	29.9	31.0	29.1	27.5	30.0	30.2	28.0	28.2	29.8	29.3
21	ECH 999 BG II	29.9	32.5	31.3	29.5	29.7	33.2	31.7	28.7	30.9	29.9	30.7
22	KCH9265 BGII	27.5	27.7	28.7	26.9	31.1	28.6	27.4	25.6	26.0	29.5	27.9
23	RAHH 1003 BGII	28.7	30.7	30.4	28.2	29.7	30.0	29.7	27.4	27.8	28.6	29.1
24	NBCH-6737 BG II	28.3	30.9	30.5	27.9	31.6	31.1	29.1	28.2	30.4	29.2	29.7
25	TBG 23/22 BG II	29.0	28.9	27.3	25.8	25.9	27.5	25.6	26.1	28.6	29.5	27.4
26	NCS 2025 Bt2	30.2	33.4	30.8	30.9	29.3	32.4	32.3	30.8	31.5	30.8	31.2
27	PRCH 2799 Bt2 (ZC1)	29.5	30.5	28.6	27.6	29.2	29.5	28.7	26.7	27.4	26.3	28.4
28	PRCH 7557 Bt2	29.6	30.1	29.9	28.9	26.3	30.7	28.8	28.5	29.5	29.3	29.2

Table: Uniformity index under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	84.0	83.0	86.0	85.0	82.0	86.0	84.0	84.0	83.0	85.0	84.2
2	PCH 2494 Bt2	82.0	86.0	85.0	83.0	84.0	87.0	86.0	83.0	83.0	85.0	84.4
3	GJBHH-2204 BG-II	83.0	85.0	85.0	84.0	83.0	87.0	85.0	85.0	83.0	83.0	84.3
4	NBC 2020 BG II (ZC2)	83.0	87.0	85.0	82.0	86.0	85.0	85.0	85.0	86.0	85.0	84.9
5	TBG 23/20 BG II	85.0	85.0	86.0	82.0	86.0	84.0	82.0	80.0	81.0	84.0	83.5
6	VPCH-456 BG II	85.0	85.0	85.0	85.0	86.0	86.0	85.0	82.0	86.0	83.0	84.8
7	DC5107 BGII	83.0	87.0	84.0	80.0	87.0	86.0	83.0	82.0	85.0	85.0	84.2
8	US 723 BGII	85.0	87.0	87.0	81.0	86.0	86.0	86.0	83.0	87.0	86.0	85.4
9	GSBHH 230 BGII	82.0	86.0	86.0	86.0	82.0	85.0	83.0	84.0	80.0	85.0	83.9
10	KCH9264 BGII	82.0	86.0	87.0	87.0	85.0	84.0	84.0	83.0	83.0	85.0	84.6
11	RCH1196BGII	84.0	88.0	87.0	85.0	87.0	86.0	85.0	85.0	86.0	85.0	85.8
12	BIOSEED 6004 BGII	82.0	86.0	85.0	85.0	86.0	84.0	86.0	83.0	87.0	85.0	84.9
13	RAHH 1001 BGII	82.0	88.0	84.0	83.0	87.0	86.0	83.0	83.0	85.0	84.0	84.5
14	Core 106 BG II	83.0	88.0	86.0	83.0	87.0	86.0	86.0	83.0	84.0	84.0	85.0
15	RCH1199BGII	84.0	86.0	86.0	85.0	86.0	86.0	87.0	80.0	86.0	86.0	85.2
16	G.Cot.Hy-22 BG-II	84.0	85.0	84.0	84.0	85.0	85.0	85.0	82.0	82.0	86.0	84.2
17	GSBHH 225 BGII	82.0	85.0	84.0	85.0	87.0	84.0	84.0	81.0	83.0	83.0	83.8
18	VSCH - 522 BG II	83.0	85.0	84.0	84.0	86.0	86.0	85.0	83.0	82.0	86.0	84.4
19	C 9341 BGII	85.0	85.0	85.0	87.0	84.0	86.0	84.0	83.0	82.0	85.0	84.6
20	KCH9266 BGII	83.0	84.0	85.0	84.0	83.0	85.0	86.0	84.0	84.0	84.0	84.2
21	ECH 999 BG II	82.0	86.0	86.0	83.0	85.0	86.0	84.0	83.0	85.0	85.0	84.5
22	KCH9265 BGII	84.0	84.0	85.0	85.0	86.0	85.0	85.0	80.0	82.0	85.0	84.1
23	RAHH 1003 BGII	82.0	86.0	86.0	85.0	84.0	86.0	84.0	82.0	84.0	85.0	84.4
24	NBCH-6737 BG II	82.0	84.0	84.0	86.0	86.0	87.0	84.0	84.0	84.0	85.0	84.6
25	TBG 23/22 BG II	83.0	84.0	84.0	85.0	82.0	83.0	83.0	81.0	84.0	84.0	83.3
26	NCS 2025 Bt2	81.0	87.0	84.0	84.0	86.0	86.0	83.0	82.0	83.0	84.0	84.0
27	PRCH 2799 Bt2 (ZC1)	86.0	87.0	85.0	84.0	86.0	85.0	86.0	83.0	84.0	83.0	84.9
28	PRCH 7557 Bt2	85.0	84.0	86.0	86.0	83.0	86.0	84.0	84.0	83.0	83.0	84.4

Table: Micronaire under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	5.4	5.6	4.5	4.1	4.0	4.8	5.2	4.2	4.5	3.2	4.6
2	PCH 2494 Bt2	4.6	5.0	4.0	3.8	5.9	4.5	4.6	4.1	4.0	4.7	4.5
3	GJBHH-2204 BG-II	5.4	4.9	3.9	3.6	4.7	4.1	4.1	3.7	4.6	4.4	4.3
4	NBC 2020 BG II (ZC2)	4.5	5.2	3.2	3.5	4.3	3.9	4.1	3.6	3.5	4.3	4.0
5	TBG 23/20 BG II	4.5	5.2	4.5	3.3	4.5	4.4	4.4	4.3	4.3	4.6	4.4
6	VPCH-456 BG II	5.7	6.2	5.7	5.2	4.6	5.7	4.6	5.2	5.5	3.6	5.2
7	DC5107 BGII	4.0	4.8	3.8	3.8	4.9	4.5	3.8	3.7	3.1	4.0	4.0
8	US 723 BGII	4.9	5.7	4.8	4.3	4.5	5.0	5.1	4.7	4.7	4.1	4.8
9	GSBHH 230 BGII	4.6	5.7	4.5	3.6	4.2	4.8	4.5	4.2	4.6	3.2	4.4
10	KCH9264 BGII	5.4	4.7	4.2	3.7	4.2	4.8	4.8	4.3	3.8	4.6	4.5
11	RCH1196BGII	4.4	4.8	4.5	3.6	4.4	4.3	4.2	4.2	4.9	4.1	4.3
12	BIOSEED 6004 BGII	4.4	4.6	3.7	3.7	5.0	3.6	3.9	3.9	4.2	3.5	4.1
13	RAHH 1001 BGII	4.4	4.9	3.8	3.9	4.5	4.3	4.1	4.0	4.0	4.0	4.2
14	Core 106 BG II	5.4	5.8	4.5	4.0	5.2	4.3	4.7	4.4	4.6	5.0	4.8
15	RCH1199BGII	4.5	4.6	3.8	3.9	4.4	4.3	4.2	4.0	3.3	4.7	4.2
16	G.Cot.Hy-22 BG-II	5.4	5.9	4.0	3.8	5.5	4.5	4.7	5.0	4.5	4.2	4.8
17	GSBHH 225 BGII	4.3	4.7	3.5	3.0	5.0	3.4	3.8	3.7	3.5	4.4	3.9
18	VSCH - 522 BG II	5.6	5.9	5.0	4.9	5.9	5.7	5.5	5.4	5.3	3.8	5.3
19	C 9341 BGII	4.6	5.4	4.5	4.1	4.1	4.6	4.0	4.3	4.8	4.3	4.5
20	KCH9266 BGII	4.8	5.3	4.1	4.3	5.3	4.2	4.1	4.1	3.7	3.7	4.4
21	ECH 999 BG II	4.7	5.0	3.9	4.3	4.1	4.4	4.0	4.3	3.8	4.0	4.3
22	KCH9265 BGII	5.1	5.2	4.7	4.5	4.4	4.7	4.6	4.6	4.4	3.2	4.5
23	RAHH 1003 BGII	5.0	5.4	4.7	4.8	4.5	5.1	4.8	4.5	4.1	4.7	4.8
24	NBCH-6737 BG II	3.6	5.2	3.4	3.6	4.7	4.0	3.8	3.4	3.7	3.7	3.9
25	TBG 23/22 BG II	4.6	4.8	3.9	4.5	4.9	4.1	4.5	4.5	3.8	3.8	4.3
26	NCS 2025 Bt2	4.7	5.1	4.3	4.2	4.4	4.6	4.5	4.2	3.7	4.7	4.4
27	PRCH 2799 Bt2 (ZC1)	5.0	5.5	4.2	4.3	4.9	4.6	4.4	4.1	4.2	4.2	4.5
28	PRCH 7557 Bt2	4.6	5.2	3.9	3.9	4.8	4.3	4.0	4.1	3.5	3.4	4.2

Table: Tenacity under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	30.6	31.3	30.4	30.7	29.8	29.7	27.9	31.0	31.9	31.4	30.5
2	PCH 2494 Bt2	32.2	33.5	30.2	28.5	28.6	31.5	28.3	27.6	31.6	27.4	29.9
3	GJBHH-2204 BG-II	29.8	33.2	31.1	29.2	30.2	30.9	28.9	28.1	29.5	28.7	30.0
4	NBC 2020 BG II (ZC2)	31.1	34.6	30.3	29.6	31.7	31.4	30.5	31.1	33.9	30.4	31.5
5	TBG 23/20 BG II	32.3	33.1	29.9	29.7	30.1	27.0	26.9	28.4	28.8	28.4	29.5
6	VPCH-456 BG II	31.0	33.6	29.0	28.1	31.4	26.9	28.9	27.7	30.3	28.4	29.5
7	DC5107 BGII	30.5	31.9	32.5	27.8	31.3	27.7	27.3	27.7	30.8	29.8	29.7
8	US 723 BGII	31.9	34.4	30.1	28.8	29.9	30.2	30.6	27.9	32.5	32.2	30.9
9	GSBHH 230 BGII	30.2	31.8	29.2	29.7	31.0	29.0	27.9	29.7	29.9	31.4	30.0
10	KCH9264 BGII	29.9	31.9	31.5	29.6	29.3	29.1	27.7	28.4	30.6	28.9	29.7
11	RCH1196BGII	32.1	33.7	32.0	30.7	31.8	32.9	31.6	29.6	33.0	30.8	31.8
12	BIOSEED 6004 BGII	29.8	31.1	28.3	27.4	29.5	29.4	27.1	26.8	29.6	28.7	28.8
13	RAHH 1001 BGII	30.4	35.5	31.1	29.3	33.5	30.1	28.5	29.2	33.3	29.8	31.1
14	Core 106 BG II	28.8	31.3	28.7	27.8	30.5	28.7	28.1	27.0	29.9	29.1	29.0
15	RCH1199BGII	32.7	34.2	30.9	30.2	29.9	33.2	29.9	28.1	29.5	30.8	30.9
16	G.Cot.Hy-22 BG-II	29.7	30.2	27.4	27.8	29.8	30.2	26.6	26.3	26.5	29.4	28.4
17	GSBHH 225 BGII	30.7	31.8	28.9	26.3	30.7	28.3	27.2	27.8	29.8	28.8	29.0
18	VSCH - 522 BG II	29.4	30.7	29.2	26.1	30.7	30.4	28.4	26.9	27.2	32.4	29.1
19	C 9341 BGII	31.5	32.5	29.0	29.3	29.8	31.8	29.0	27.6	28.3	31.8	30.1
20	KCH9266 BGII	29.5	29.5	31.1	30.8	28.2	30.8	29.0	26.9	28.4	29.5	29.4
21	ECH 999 BG II	31.8	35.1	30.6	30.3	30.9	32.7	31.0	29.9	32.5	31.5	31.6
22	KCH9265 BGII	29.9	29.6	30.0	27.8	29.8	31.6	29.7	27.2	27.4	31.0	29.4
23	RAHH 1003 BGII	30.4	31.9	29.1	27.4	31.9	30.8	28.4	26.6	29.9	29.0	29.5
24	NBCH-6737 BG II	30.2	31.0	30.7	27.2	31.4	33.8	29.2	26.5	32.7	29.8	29.9
25	TBG 23/22 BG II	30.9	30.1	29.2	27.8	27.6	27.2	26.6	26.3	29.1	29.6	28.4
26	NCS 2025 Bt2	30.6	32.6	30.6	28.1	31.6	32.4	29.5	29.8	30.2	29.1	30.5
27	PRCH 2799 Bt2 (ZC1)	30.0	33.1	29.2	26.8	28.3	30.5	28.0	26.3	27.0	26.4	28.6
28	PRCH 7557 Bt2	30.9	31.5	29.9	31.0	28.4	31.4	28.0	28.7	30.0	30.0	30.0

Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	16.59	19.05	10.69	12.48	20.83	11.95	18.11	28.83	10.65	16.63	16.58
2	PCH 2494 Bt2	15.69	14.71	7.50	9.83	20.64	9.85	17.78	28.18	13.87	17.72	15.58
3	GJBHH-2204 BG-II	12.73	22.80	5.49	7.80	9.07	6.14	3.30	12.34	0.00	18.24	9.79
4	NBC 2020 BG II (ZC2)	15.04	20.96	9.34	10.03	18.90	9.72	17.04	22.57	12.53	17.95	15.41
5	TBG 23/20 BG II	15.56	16.25	6.45	8.03	12.92	7.04	9.54	14.65	10.21	18.79	11.94
6	VPCH-456 BG II	14.79	18.90	4.88	12.48	16.98	7.92	12.82	24.32	8.07	20.52	14.17
7	DC5107 BGII	17.75	16.11	10.22	8.37	18.52	11.37	19.13	28.72	12.44	18.61	16.12
8	US 723 BGII	14.66	18.64	6.10	12.51	21.99	12.24	18.92	33.77	11.41	18.03	16.83
9	GSBHH 230 BGII	14.79	12.91	8.62	8.00	14.85	8.34	3.32	17.45	6.19	19.25	11.37
10	KCH9264 BGII	17.62	20.00	9.71	13.36	20.06	9.64	19.38	33.57	12.95	18.87	17.52
11	RCH1196BGII	18.65	16.13	8.71	7.56	16.01	9.45	12.53	25.11	8.45	17.44	14.00
12	BIOSEED 6004 BGII	19.03	16.79	9.70	14.32	21.41	13.34	17.96	25.86	14.12	19.43	17.20
13	RAHH 1001 BGII	10.42	13.72	6.14	13.29	18.71	9.90	12.84	17.85	16.21	19.42	13.85
14	Core 106 BG II	18.13	12.55	8.10	12.29	24.31	11.74	14.83	28.13	8.28	23.96	16.23
15	RCH1199BGII	14.28	19.09	9.76	9.63	21.80	11.04	13.41	20.60	14.04	19.45	15.31
16	G.Cot.Hy-22 BG-II	17.36	20.25	5.98	10.12	13.31	6.27	5.88	14.37	3.90	19.15	11.66
17	GSBHH 225 BGII	12.99	11.57	8.19	7.91	17.36	7.08	5.30	16.09	7.38	17.67	11.15
18	VSCH - 522 BG II	15.82	17.84	6.50	10.21	20.45	7.66	12.53	25.98	8.27	18.62	14.39
19	C 9341 BGII	18.65	15.48	8.25	13.33	21.41	11.16	10.13	22.95	10.95	18.94	15.13
20	KCH9266 BGII	11.06	19.06	12.59	16.06	19.10	9.51	18.76	32.55	15.10	19.14	17.29
21	ECH 999 BG II	12.09	4.88	10.23	11.97	19.68	12.78	18.56	18.61	9.05	24.85	14.27
22	KCH9265 BGII	17.62	21.66	12.16	13.56	16.78	11.07	18.81	32.17	9.04	18.55	17.14
23	RAHH 1003 BGII	10.03	17.30	7.00	13.32	22.18	9.44	18.69	23.28	19.77	19.45	16.05
24	NBCH-6737 BG II	10.93	14.86	9.77	12.62	22.38	8.90	18.81	23.61	12.75	18.16	15.28
25	TBG 23/22 BG II	13.63	13.18	9.38	7.43	16.20	7.36	9.22	15.53	10.49	19.61	12.20
26	NCS 2025 Bt2	10.93	16.64	10.65	12.99	20.64	9.37	17.87	24.45	17.53	20.80	16.19
27	PRCH 2799 Bt2 (ZC1)	13.50	16.89	11.81	9.79	17.17	10.60	15.46	24.81	10.59	17.35	14.80
28	PRCH 7557 Bt2	14.15	19.45	11.00	13.02	19.87	10.65	14.51	24.11	16.74	18.05	16.16
	CD @ 5%	3.73	3.49	2.37		4.60	2.33	10.53	3.86			
	CV%	15.40	12.76	16.58		15.04	14.67	2.44	10.01			

Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean
1	US 722 BGII	14.66	6.26	18.44	3.94	12.48	10.29	12.10	1.96	12.89	9.48	10.25
2	PCH 2494 Bt2	10.80	5.51	19.26	3.82	8.28	11.17	8.09	1.69	10.30	9.55	8.85
3	GJBHH-2204 BG-II	15.82	11.86	7.66	3.34	2.87	11.48	11.53	2.25	5.70	9.50	8.20
4	NBC 2020 BG II (ZC2)	13.37	3.69	14.92	3.71	5.34	8.21	8.26	2.08	10.44	9.48	7.95
5	TBG 23/20 BG II	7.85	2.81	10.36	3.28	5.00	10.44	10.56	2.47	11.93	9.50	7.42
6	VPCH-456 BG II	12.22	6.43	10.24	3.94	2.80	11.52	12.30	2.69	10.37	9.51	8.20
7	DC5107 BGII	8.87	4.79	17.07	3.26	2.82	11.13	11.04	2.20	13.33	9.49	8.40
8	US 723 BGII	14.02	6.11	18.98	3.74	9.84	10.39	11.17	3.03	11.67	9.53	9.85
9	GSBHH 230 BGII	11.19	12.12	21.25	3.27	5.09	8.75	12.08	1.42	8.62	9.48	9.33
10	KCH9264 BGII	15.43	6.84	16.20	3.99	6.37	9.35	9.05	3.00	9.00	9.50	8.87
11	RCH1196BGII	10.29	2.21	19.39	3.24	4.24	10.39	13.02	1.96	13.15	9.55	8.74
12	BIOSEED 6004 BGII	10.54	1.42	14.53	4.28	5.67	9.35	10.63	1.30	8.07	9.49	7.53
13	RAHH 1001 BGII	8.23	5.33	10.59	3.97	5.25	9.11	9.88	1.62	12.63	9.53	7.61
14	Core 106 BG II	12.09	3.95	15.97	3.88	6.37	10.85	13.47	1.79	10.47	9.78	8.86
15	RCH1199BGII	9.90	4.95	10.19	3.04	7.23	7.82	9.88	2.01	6.63	9.50	7.12
16	G.Cot.Hy-22 BG-II	15.56	9.79	12.46	3.37	6.17	11.49	12.44	1.92	8.13	9.50	9.08
17	GSBHH 225 BGII	9.64	2.81	9.86	3.08	5.15	9.80	11.98	1.59	11.82	9.53	7.53
18	VSCH - 522 BG II	10.80	3.34	15.23	3.22	8.10	11.02	12.69	1.77	13.24	9.46	8.89
19	C 9341 BGII	14.66	3.90	17.32	3.76	7.33	10.93	13.51	1.64	7.24	9.55	8.98
20	KCH9266 BGII	13.12	10.89	22.05	4.02	9.65	9.60	11.69	2.84	12.14	9.50	10.55
21	ECH 999 BG II	7.59	2.92	18.23	4.20	6.17	9.67	10.30	1.85	7.82	9.75	7.85
22	KCH9265 BGII	14.40	4.75	23.07	4.28	5.98	8.88	11.57	3.07	15.02	9.50	10.05
23	RAHH 1003 BGII	9.65	5.12	19.92	3.98	6.56	8.62	10.01	3.10	8.57	9.51	8.50
24	NBCH-6737 BG II	10.55	2.91	17.59	4.21	5.98	8.46	9.75	1.70	9.07	9.48	7.97
25	TBG 23/22 BG II	9.39	2.26	15.03	2.89	3.61	9.36	10.11	1.23	7.04	9.52	7.04
26	NCS 2025 Bt2	9.65	3.32	15.86	3.88	5.63	9.40	7.48	2.35	9.61	9.51	7.67
27	PRCH 2799 Bt2 (ZC1)	11.32	3.98	13.31	3.62	4.05	8.05	10.38	1.59	10.44	9.53	7.63
28	PRCH 7557 Bt2	11.32	3.40	18.05	3.89	7.14	7.37	10.59	1.75	9.64	9.49	8.26
	CD @ 5%	3.18	0.91	2.97	2.53	1.79	2.13	11.14	0.87			
	CV%	16.85	15.89	11.66	12.30	17.90	13.36	1.99	25.69			

Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Jalna (El Dorado)	Gangapur (Seedworks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Jalgaon (Core Seeds)	Mean	Rank	% Inc over best check
1	US 722 BGII	31.25	25.30	29.13	16.42	33.31	22.23	30.22	30.79	23.54	26.11	26.83	3	14.9
2	PCH 2494 Bt2	26.49	20.22	26.76	13.66	28.92	21.02	25.86	29.87	24.17	27.26	24.42	10	4.6
3	GJBHH-2204 BG-II	28.55	34.66	13.14	11.15	11.94	17.62	14.83	14.59	5.70	27.75	17.99	28	-23.0
4	NBC 2020 BG II (ZC2)	28.42	24.66	24.26	13.74	24.25	17.93	25.30	24.65	22.97	27.43	23.36	14	0.0
5	TBG 23/20 BG II	23.41	19.07	16.82	11.31	17.92	17.48	20.10	17.12	22.14	28.29	19.37	25	-17.1
6	VPCH-456 BG II	27.00	25.34	15.12	16.42	19.77	19.44	25.12	27.00	18.44	30.03	22.37	20	-4.2
7	DC5107 BGII	26.62	20.90	27.28	11.63	21.33	22.50	30.17	30.92	25.77	28.10	24.52	9	5.0
8	US 723 BGII	28.68	24.75	25.07	16.25	31.83	22.62	30.10	36.80	23.08	27.56	26.67	4	14.2
9	GSBHH 230 BGII	25.98	25.02	29.87	11.27	19.95	17.10	15.41	18.87	14.81	28.72	20.70	24	-11.4
10	KCH9264 BGII	33.05	26.84	25.91	17.35	26.43	18.99	28.43	36.57	21.95	28.37	26.39	5	13.0
11	RCH1196BGII	28.94	18.35	28.11	10.80	20.25	19.84	25.56	27.06	21.60	26.99	22.75	17	-2.6
12	BIOSEED 6004 BGII	29.58	18.21	24.23	18.60	27.08	22.69	28.59	27.15	22.19	28.92	24.72	7	5.8
13	RAHH 1001 BGII	18.65	19.04	16.73	17.26	23.96	19.02	22.72	19.47	28.84	28.95	21.46	22	-8.1
14	Core 106 BG II	30.22	16.51	24.07	16.17	30.67	22.59	28.30	29.92	18.75	33.74	25.09	6	7.4
15	RCH1199BGII	24.18	24.04	19.95	12.67	29.03	18.85	23.30	22.61	20.67	28.95	22.42	19	-4.0
16	G.Cot.Hy-22 BG-II	32.92	30.05	18.44	13.49	19.48	17.76	18.32	16.30	12.03	28.65	20.74	23	-11.2
17	GSBHH 225 BGII	22.63	14.38	18.05	10.99	22.51	16.88	17.29	17.67	19.20	27.21	18.68	27	-20.0
18	VSCH - 522 BG II	26.62	21.18	21.73	13.43	28.55	18.68	25.21	27.75	21.51	28.08	23.27	15	-0.4
19	C 9341 BGII	33.31	19.38	25.57	17.09	28.74	22.09	23.65	24.60	18.19	28.48	24.11	12	3.2
20	KCH9266 BGII	24.18	29.94	34.64	20.08	28.74	19.10	30.45	35.38	27.24	28.64	27.84	1	19.2
21	ECH 999 BG II	19.67	7.80	28.46	16.17	25.85	22.46	28.87	20.46	16.87	34.43	22.10	21	-5.4
22	KCH9265 BGII	32.02	26.41	35.24	17.85	22.76	19.95	30.38	35.24	24.06	28.05	27.20	2	16.4
23	RAHH 1003 BGII	19.67	22.41	26.92	17.30	28.74	18.06	28.70	26.38	28.34	28.96	24.55	8	5.1
24	NBCH-6737 BG II	21.47	17.77	27.35	16.82	28.36	17.36	28.56	25.31	21.82	27.64	23.25	16	-0.5
25	TBG 23/22 BG II	23.02	15.43	24.42	10.32	19.81	16.72	19.33	16.76	17.53	29.14	19.25	26	-17.6
26	NCS 2025 Bt2	20.58	19.95	26.51	16.87	26.27	18.77	25.34	26.80	27.14	30.08	23.83	13	2.0
27	PRCH 2799 Bt2 (ZC1)	24.82	20.87	25.12	13.41	21.22	18.66	25.84	26.40	21.04	26.88	22.43	18	-4.0
28	PRCH 7557 Bt2	25.46	22.84	29.05	16.91	27.01	18.02	25.10	25.86	26.38	27.54	24.42	11	4.5
	CD @ 5%	5.12	4.01	3.60	250.01	5.32	3.18	7.11	3.75		1.66			
	CV%	11.87	11.23	9.04	12.14	13.11	9.98	2.92	8.92		3.55			

Evaluation under Protected Condition for Insect pests

Reaction to Insect Pest

Table: Initial H X H trial in Central Zone under Protected Conditions –Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	5.87	-	1.76	24.60	17.95	2.09	10.45	AETL
PCH 2494 Bt2	8.27	-	1.91	28.33	20.23	0.00	11.75	AETL
GJBHH-2204 BG-II	6.60	-	1.93	27.43	17.17	1.33	10.89	AETL
NBC 2020 BG II (ZC2)	7.40	-	2.04	27.17	6.17	0.00	8.56	BETL
TBG 23/20 BG II	8.87	-	2.11	27.27	23.95	2.20	12.88	AETL
VPCH-456 BG II	5.60	-	2.07	28.80	26.38	0.33	12.64	AETL
DC5107 BGII	8.93	-	1.67	28.90	8.99	2.58	10.21	AETL
US 723 BGII	9.53	-	1.69	24.40	8.27	0.13	8.80	BETL
GSBHH 230 BGII	7.00	-	1.82	25.40	31.77	1.04	13.41	AETL
KCH9264 BGII	7.93	-	1.91	23.43	18.71	3.89	11.18	AETL
RCH1196BGII	6.00	-	1.87	23.87	23.95	2.22	11.58	AETL
BIOSEED 6004 BGII	6.40	-	1.60	25.07	26.38	3.47	12.58	AETL
RAHH 1001 BGII	9.33	-	1.67	24.00	8.99	0.80	8.96	BETL
Core 106 BG II	6.33	-	1.62	25.47	23.96	0.00	11.48	AETL
RCH1199BGII	6.80	-	1.73	26.70	29.37	6.44	14.21	AETL
G.Cot.Hy-22 BG-II	6.20	-	1.53	24.57	16.36	5.33	10.80	AETL
GSBHH 225 BGII	8.27	-	1.84	24.60	21.36	3.73	11.96	AETL
VSCH - 522 BG II	7.53	-	1.64	25.07	23.96	0.38	11.72	AETL
C 9341 BGII	7.87	-	1.62	21.67	29.37	0.00	12.11	AETL
KCH9266 BGII	9.80	-	1.73	21.93	16.36	1.07	10.18	AETL
ECH 999 BG II	10.40	-	1.82	24.77	21.36	1.73	12.02	AETL
KCH9265 BGII	7.07	-	1.73	25.30	23.96	0.00	11.61	AETL
RAHH 1003 BGII	8.80	-	1.78	23.67	29.37	0.00	12.72	AETL
NBCH-6737 BG II	10.13	-	1.69	22.47	23.96	0.20	11.69	AETL
TBG 23/22 BG II	7.27	-	1.67	20.37	29.37	3.00	12.33	AETL
NCS 2025 Bt2	8.60	-	1.60	20.53	16.36	0.27	9.47	BETL
PRCH 2799 Bt2 (ZC1)	7.93	-	1.58	22.30	21.36	2.80	11.19	AETL
PRCH 7557 Bt2	7.60	-	1.69	22.13	16.60	6.09	10.82	AETL

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Table: Initial H X H trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	6.67	-	1.20	2.57	6.36	1.11	3.58	BETL
PCH 2494 Bt2	6.40	-	1.51	1.90	9.63	1.04	4.10	BETL
GJBHH-2204 BG-II	7.00	-	1.38	2.27	10.36	1.18	4.44	BETL
NBC 2020 BG II (ZC2)	6.07	-	1.42	2.18	9.36	1.40	4.09	BETL
TBG 23/20 BG II	10.00	-	1.44	2.32	9.65	0.87	4.86	BETL
VPCH-456 BG II	7.20	-	1.20	2.35	5.63	0.83	3.44	BETL
DC5107 BGII	7.80	-	1.36	2.33	8.96	0.64	4.22	BETL
US 723 BGII	8.73	-	1.36	2.28	8.26	1.76	4.48	BETL
GSBHH 230 BGII	6.87	-	1.40	2.20	7.36	0.98	3.76	BETL
KCH9264 BGII	9.53	-	1.62	2.00	9.65	1.40	4.84	BETL
RCH1196BGII	5.93	-	1.58	2.42	10.36	0.87	4.23	BETL
BIOSEED 6004 BGII	7.20	-	1.42	2.43	10.95	1.00	4.60	BETL
RAHH 1001 BGII	9.87	-	1.62	2.18	9.65	0.88	4.84	BETL
Core 106 BG II	6.60	-	1.53	1.87	11.25	1.07	4.46	BETL
RCH1199BGII	7.80	-	1.44	2.07	11.96	0.73	4.80	BETL
G.Cot.Hy-22 BG-II	6.13	-	1.47	2.12	12.32	1.38	4.68	BETL
GSBHH 225 BGII	8.60	-	1.49	2.15	10.89	0.91	4.81	BETL
VSCH - 522 BG II	7.50	-	1.60	2.17	9.89	1.56	4.54	BETL
C 9341 BGII	9.47	-	1.53	2.57	8.96	0.93	4.69	BETL
KCH9266 BGII	8.33	-	1.47	2.33	9.99	0.78	4.58	BETL
ECH 999 BG II	9.07	-	1.44	2.32	12.20	1.07	5.22	BETL
KCH9265 BGII	8.80	-	1.58	2.42	10.96	0.51	4.85	BETL
RAHH 1003 BGII	9.27	-	1.71	2.18	10.98	1.84	5.20	BETL
NBCH-6737 BG II	7.40	-	1.47	2.37	9.63	0.40	4.25	BETL
TBG 23/22 BG II	7.53	-	1.58	2.30	9.89	0.28	4.32	BETL
NCS 2025 Bt2	8.47	-	1.49	2.27	8.96	1.21	4.48	BETL
PRCH 2799 Bt2 (ZC1)	7.87	-	1.49	2.20	8.97	1.33	4.37	BETL
PRCH 7557 Bt2	8.13	-	1.42	2.47	10.78	0.90	4.74	BETL

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Protected Conditions –JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	II	-	I	II	-	I	II	
PCH 2494 Bt2	II	-	I	I	-	I	I	
GJBHH-2204 BG-II	II	-	I	II	-	I	II	
NBC 2020 BG II (ZC2)	II	-	I	I	-	I	I	
TBG 23/20 BG II	II	-	I	I	-	I	I	
VPCH-456 BG II	II	-	I	I	-	I	I	
DC5107 BGII	II	-	I	I	-	I	I	
US 723 BGII	II	-	I	I	-	I	I	
GSBHH 230 BGII	II	-	I	I	-	I	I	
KCH9264 BGII	II	-	I	I	-	I	I	
RCH1196BGII	II	-	I	I	-	I	I	
BIOSEED 6004 BGII	II	-	I	I	-	I	I	
RAHH 1001 BGII	II	-	II	I	-	I	II	
Core 106 BG II	II	-	I	I	-	I	I	
RCH1199BGII	II	-	I	I	-	I	I	
G.Cot.Hy-22 BG-II	II	-	I	I	-	I	I	
GSBHH 225 BGII	II	-	I	II	-	I	II	
VSCH - 522 BG II	II	-	I	I	-	I	I	
C 9341 BGII	II	-	I	I	-	I	I	
KCH9266 BGII	II	-	I	I	-	I	I	
ECH 999 BG II	II	-	I	II	-	I	II	
KCH9265 BGII	II	-	I	I	-	I	I	
RAHH 1003 BGII	II	-	I	I	-	I	I	
NBCH-6737 BG II	II	-	II	I	-	I	II	
TBG 23/22 BG II	II	-	I	II	-	I	II	
NCS 2025 Bt2	II	-	I	I	-	I	I	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	I	I	
PRCH 7557 Bt2	II	-	I	I	-	I	I	

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	13.67	-	0.56	26.73	-	0.04	10.25	BETL
PCH 2494 Bt2	9.20	-	0.51	25.87	-	0.09	8.92	BETL
GJBHH-2204 BG-II	9.53	-	0.60	27.67	-	0.00	9.45	BETL
NBC 2020 BG II (ZC2)	9.33	-	0.62	29.27	-	0.24	9.87	BETL
TBG 23/20 BG II	10.40	-	0.58	25.67	-	0.24	9.22	BETL
VPCH-456 BG II	12.60	-	0.71	23.00	-	0.09	9.10	BETL
DC5107 BGII	11.93	-	0.40	27.73	-	0.04	10.03	BETL
US 723 BGII	11.67	-	0.51	28.87	-	0.33	10.34	BETL
GSBHH 230 BGII	8.33	-	0.58	26.50	-	0.16	8.89	BETL
KCH9264 BGII	13.13	-	0.64	26.20	-	0.07	10.01	BETL
RCH1196BGII	10.80	-	0.73	25.77	-	0.11	9.35	BETL
BIOSEED 6004 BGII	11.27	-	0.62	22.73	-	0.09	8.68	BETL
RAHH 1001 BGII	13.33	-	0.67	24.40	-	0.07	9.62	BETL
Core 106 BG II	8.47	-	0.64	24.27	-	0.04	8.36	BETL
RCH1199BGII	10.53	-	0.58	26.57	-	0.00	9.42	BETL
G.Cot.Hy-22 BG-II	8.67	-	0.69	24.30	-	0.02	8.42	BETL
GSBHH 225 BGII	9.87	-	0.71	24.07	-	0.00	8.66	BETL
VSCH - 522 BG II	12.47	-	0.78	23.63	-	0.00	9.22	BETL
C 9341 BGII	10.67	-	0.73	22.83	-	0.16	8.60	BETL
KCH9266 BGII	10.10	-	0.71	24.25	-	0.09	8.79	BETL
ECH 999 BG II	9.67	-	0.64	21.60	-	0.09	8.00	BETL
KCH9265 BGII	13.93	-	0.64	21.30	-	0.11	9.00	BETL
RAHH 1003 BGII	13.47	-	0.73	22.13	-	0.18	9.13	BETL
NBCH-6737 BG II	12.87	-	0.51	22.73	-	0.02	9.03	BETL
TBG 23/22 BG II	12.73	-	0.62	18.80	-	0.00	8.04	BETL
NCS 2025 Bt2	12.17	-	0.71	22.05	-	0.02	8.74	BETL
PRCH 2799 Bt2 (ZC1)	10.33	-	0.67	20.77	-	0.02	7.95	BETL
PRCH 7557 Bt2	12.07	-	0.69	21.40	-	0.11	8.57	BETL

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	6.33	-	0.49	1.80	12.96	0.47	4.41	BETL
PCH 2494 Bt2	6.13	-	0.38	1.50	9.65	0.60	3.65	BETL
GJBHH-2204 BG-II	6.57	-	0.47	1.47	14.26	0.42	4.64	BETL
NBC 2020 BG II (ZC2)	6.77	-	0.38	1.93	13.26	1.11	4.69	BETL
TBG 23/20 BG II	6.70	-	0.49	1.43	9.65	0.64	3.78	BETL
VPCH-456 BG II	8.17	-	0.47	1.77	8.56	0.47	3.89	BETL
DC5107 BGII	5.93	-	0.49	1.97	9.65	0.40	3.69	BETL
US 723 BGII	7.87	-	0.53	1.93	12.36	0.47	4.63	BETL
GSBHH 230 BGII	5.17	-	0.36	1.70	18.98	0.51	5.34	BETL
KCH9264 BGII	5.60	-	0.40	1.93	16.25	0.47	4.93	BETL
RCH1196BGII	7.67	-	0.40	1.77	18.92	0.51	5.85	BETL
BIOSEED 6004 BGII	7.07	-	0.58	1.77	18.26	0.78	5.69	BETL
RAHH 1001 BGII	9.63	-	0.38	1.63	9.56	0.49	4.34	BETL
Core 106 BG II	5.43	-	0.51	1.50	18.25	0.69	5.28	BETL
RCH1199BGII	7.47	-	0.49	1.50	16.25	0.16	2.40	BETL
G.Cot.Hy-22 BG-II	5.77	-	0.42	1.63	12.25	0.60	4.13	BETL
GSBHH 225 BGII	8.87	-	0.42	1.53	12.36	0.89	4.81	BETL
VSCH - 522 BG II	9.43	-	0.49	1.83	9.69	0.20	4.33	BETL
C 9341 BGII	9.23	-	0.56	1.40	12.36	0.42	4.79	BETL
KCH9266 BGII	8.67	-	0.42	1.47	15.89	0.47	5.38	BETL
ECH 999 BG II	9.07	-	0.44	1.83	12.34	0.58	4.85	BETL
KCH9265 BGII	8.53	-	0.44	1.47	10.36	0.73	4.31	BETL
RAHH 1003 BGII	10.07	-	0.47	1.70	15.26	0.40	5.58	BETL
NBCH-6737 BG II	9.83	-	0.42	1.77	18.26	0.49	6.15	BETL
TBG 23/22 BG II	7.23	-	0.53	1.80	19.25	0.49	5.86	BETL
NCS 2025 Bt2	5.27	-	0.44	1.47	11.36	0.82	3.87	BETL
PRCH 2799 Bt2 (ZC1)	8.30	-	0.49	1.43	12.36	0.67	4.65	BETL
PRCH 7557 Bt2	7.90	-	0.49	1.70	15.20	0.18	5.09	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	0.00	-	0.00	1.80	-	0.22	0.51	
PCH 2494 Bt2	0.00	-	0.00	1.70	-	0.09	0.45	
GJBHH-2204 BG-II	0.00	-	0.00	1.80	-	0.33	0.53	
NBC 2020 BG II (ZC2)	0.00	-	0.00	1.93	-	0.44	0.59	
TBG 23/20 BG II	0.00	-	0.00	1.60	-	0.22	0.46	
VPCH-456 BG II	0.00	-	0.00	1.80	-	0.12	0.48	
DC5107 BGII	0.00	-	0.00	1.80	-	0.02	0.46	
US 723 BGII	0.00	-	0.00	2.00	-	0.22	0.56	
GSBHH 230 BGII	0.00	-	0.00	1.63	-	0.16	0.45	
KCH9264 BGII	0.00	-	0.00	1.67	-	0.31	0.49	
RCH1196BGII	0.00	-	0.00	1.67	-	0.20	0.47	
BIOSEED 6004 BGII	0.00	-	0.00	1.83	-	0.18	0.50	
RAHH 1001 BGII	0.00	-	0.00	2.00	-	0.09	0.52	
Core 106 BG II	0.00	-	0.00	1.63	-	0.11	0.44	
RCH1199BGII	0.00	-	0.00	1.83	-	0.04	0.47	
G.Cot.Hy-22 BG-II	0.00	-	0.00	1.87	-	0.18	0.51	
GSBHH 225 BGII	0.00	-	0.00	1.80	-	0.13	0.48	
VSCH - 522 BG II	0.00	-	0.00	1.80	-	0.13	0.48	
C 9341 BGII	0.00	-	0.00	1.73	-	0.16	0.47	
KCH9266 BGII	0.00	-	0.00	1.67	-	0.18	0.46	
ECH 999 BG II	0.00	-	0.00	1.70	-	0.18	0.47	
KCH9265 BGII	0.00	-	0.00	1.93	-	0.09	0.51	
RAHH 1003 BGII	0.00	-	0.00	1.67	-	0.09	0.44	
NBCH-6737 BG II	0.00	-	0.00	1.60	-	0.47	0.52	
TBG 23/22 BG II	0.00	-	0.00	1.57	-	0.02	0.40	
NCS 2025 Bt2	0.00	-	0.00	1.87	-	0.00	0.47	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	1.80	-	0.00	0.45	
PRCH 7557 Bt2	0.00	-	0.00	1.87	-	0.00	0.47	

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	2.90	-	0.04	3.33	16.35	0.22	4.57	AETL
PCH 2494 Bt2	3.60	-	0.02	3.17	12.21	0.00	3.80	AETL
GJBHH-2204 BG-II	2.80	-	0.02	2.83	10.32	0.00	3.20	AETL
NBC 2020 BG II (ZC2)	3.40	-	0.02	2.67	18.54	0.00	4.93	AETL
TBG 23/20 BG II	3.80	-	0.00	3.50	11.35	0.78	3.89	AETL
VPCH-456 BG II	3.70	-	0.07	3.17	16.32	0.00	4.65	AETL
DC5107 BGII	3.20	-	0.02	2.67	10.23	0.00	3.22	AETL
US 723 BGII	3.40	-	0.02	2.50	7.96	0.00	2.78	AETL
GSBHH 230 BGII	4.10	-	0.04	3.33	5.60	0.00	2.62	AETL
KCH9264 BGII	2.70	-	0.04	3.00	11.20	0.00	3.39	AETL
RCH1196BGII	3.10	-	0.00	3.67	13.26	0.22	4.05	AETL
BIOSEED 6004 BGII	3.00	-	0.04	3.50	9.65	0.22	3.28	AETL
RAHH 1001 BGII	5.20	-	0.02	3.00	4.65	0.00	2.57	AETL
Core 106 BG II	2.70	-	0.00	3.00	12.32	0.00	3.60	AETL
RCH1199BGII	4.30	-	0.04	3.00	10.20	0.00	3.51	AETL
G.Cot.Hy-22 BG-II	2.40	-	0.02	3.33	8.45	0.00	2.84	AETL
GSBHH 225 BGII	4.90	-	0.04	2.83	4.36	0.00	2.43	AETL
VSCH - 522 BG II	3.60	-	0.04	2.83	14.69	0.00	4.23	AETL
C 9341 BGII	2.20	-	0.00	3.17	18.25	0.00	4.72	AETL
KCH9266 BGII	3.90	-	0.04	3.17	12.36	0.00	3.89	AETL
ECH 999 BG II	4.70	-	0.04	3.17	13.23	0.00	4.23	AETL
KCH9265 BGII	2.50	-	0.00	2.67	14.12	0.00	3.86	AETL
RAHH 1003 BGII	5.60	-	0.09	2.67	12.36	0.00	4.14	AETL
NBCH-6737 BG II	5.40	-	0.02	2.33	14.26	0.00	4.40	AETL
TBG 23/22 BG II	4.60	-	0.02	3.17	14.26	0.00	4.41	AETL
NCS 2025 Bt2	5.00	-	0.04	3.17	16.32	0.00	4.91	AETL
PRCH 2799 Bt2 (ZC1)	4.00	-	0.00	3.00	15.36	0.00	4.47	AETL
PRCH 7557 Bt2	3.80	-	0.02	3.33	15.23	0.00	4.48	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * data based on 20 green bolls, # Data based on 2 obseravtions



Table: Initial H X H trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions –Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	8.80	-	0.78	20.00	-	2.22	7.95	BETL
PCH 2494 Bt2	10.20	-	0.44	20.00	-	0.00	7.66	BETL
GJBHH-2204 BG-II	8.45	-	0.78	16.67	-	0.00	6.47	BETL
NBC 2020 BG II (ZC2)	10.05	-	0.11	15.00	-	0.00	6.29	BETL
TBG 23/20 BG II	10.62	-	0.56	21.67	-	5.56	9.60	BETL
VPCH-456 BG II	11.63	-	0.78	13.33	-	2.22	6.99	BETL
DC5107 BGII	9.56	-	0.22	20.00	-	0.00	7.44	BETL
US 723 BGII	9.91	-	0.56	23.33	-	0.00	8.45	BETL
GSBHH 230 BGII	11.41	-	0.56	20.00	-	0.00	7.99	BETL
KCH9264 BGII	7.88	-	0.78	16.67	-	0.00	6.33	BETL
RCH1196BGII	9.29	-	0.44	16.67	-	4.44	7.71	BETL
BIOSEED 6004 BGII	8.95	-	0.56	18.33	-	4.44	8.07	BETL
RAHH 1001 BGII	13.33	-	0.67	11.67	-	0.00	6.42	BETL
Core 106 BG II	8.16	-	0.22	18.33	-	0.00	6.68	BETL
RCH1199BGII	12.05	-	0.44	20.00	-	0.00	8.12	BETL
G.Cot.Hy-22 BG-II	8.09	-	0.33	13.33	-	0.00	5.44	BETL
GSBHH 225 BGII	12.58	-	0.44	18.33	-	0.00	7.84	BETL
VSCH - 522 BG II	10.42	-	0.33	18.33	-	0.00	7.27	BETL
C 9341 BGII	7.78	-	0.56	20.00	-	0.00	7.08	BETL
KCH9266 BGII	12.82	-	0.56	13.33	-	0.00	6.68	BETL
ECH 999 BG II	12.45	-	0.56	18.33	-	0.33	7.92	BETL
KCH9265 BGII	8.25	-	0.11	15.00	-	0.00	5.84	BETL
RAHH 1003 BGII	13.78	-	0.78	18.33	-	0.00	8.22	BETL
NBCH-6737 BG II	13.48	-	0.33	18.33	-	0.00	8.04	BETL
TBG 23/22 BG II	12.29	-	0.11	20.00	-	0.00	8.10	BETL
NCS 2025 Bt2	13.17	-	0.67	18.33	-	0.00	8.04	BETL
PRCH 2799 Bt2 (ZC1)	11.18	-	0.00	16.67	-	0.00	6.96	BETL
PRCH 7557 Bt2	10.44	-	0.67	16.67	-	0.00	6.94	BETL

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given,
data based on 2 observation



Table: Initial H X H trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Ramark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	12.03	-	11.48	8.52	-	22.11	13.54	
PCH 2494 Bt2	13.57	-	13.39	8.23	-	12.78	11.99	
GJBHH-2204 BG-II	11.76	-	17.78	8.96	-	21.89	15.10	
NBC 2020 BG II (ZC2)	13.17	-	10.17	5.98	-	21.39	12.68	
TBG 23/20 BG II	14.11	-	9.45	8.80	-	3.98	9.09	
VPCH-456 BG II	15.15	-	10.20	5.10	-	6.86	9.33	
DC5107 BGII	12.76	-	18.58	5.37	-	16.72	13.36	
US 723 BGII	11.96	-	10.70	8.37	-	3.65	8.67	
GSBHH 230 BGII	14.84	-	11.44	7.02	-	14.99	12.07	
KCH9264 BGII	11.30	-	9.12	5.75	-	15.92	10.52	
RCH1196BGII	12.57	-	9.35	5.01	-	12.51	9.86	
BIOSEED 6004 BGII	12.13	-	11.39	12.06	-	8.13	10.93	
RAHH 1001 BGII	16.70	-	13.86	9.66	-	11.50	12.93	
Core 106 BG II	11.50	-	7.12	7.60	-	10.02	9.06	
RCH1199BGII	15.23	-	12.73	9.62	-	15.83	13.35	
G.Cot.Hy-22 BG-II	10.88	-	11.51	12.01	-	2.45	9.21	
GSBHH 225 BGII	15.97	-	17.20	8.71	-	8.93	12.70	
VSCH - 522 BG II	13.77	-	8.33	6.79	-	8.70	9.40	
C 9341 BGII	10.59	-	9.15	4.88	-	0.00	6.16	
KCH9266 BGII	16.16	-	11.25	7.36	-	10.20	11.24	
ECH 999 BG II	15.85	-	9.24	6.60	-	11.34	10.76	
KCH9265 BGII	11.00	-	11.62	5.67	-	5.18	8.37	
RAHH 1003 BGII	17.24	-	9.07	7.65	-	14.26	12.06	
NBCH-6737 BG II	16.88	-	7.88	7.58	-	3.91	9.06	
TBG 23/22 BG II	15.67	-	7.30	5.61	-	12.58	10.29	
NCS 2025 Bt2	16.58	-	13.30	6.19	-	0.00	9.02	
PRCH 2799 Bt2 (ZC1)	14.61	-	12.77	7.77	-	0.00	8.79	
PRCH 7557 Bt2	14.17	-	9.72	7.06	-	17.25	12.05	

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	6.49	-	6.25	3.17	-	14.90	7.70	
PCH 2494 Bt2	8.17	-	7.47	2.83	-	7.33	6.45	
GJBHH-2204 BG-II	6.2	-	9.39	2.85	-	8.23	6.66	
NBC 2020 BG II (ZC2)	7.89	-	5.97	2.20	-	3.26	4.83	
TBG 23/20 BG II	8.5	-	4.97	2.73	-	1.00	4.30	
VPCH-456 BG II	9.49	-	5.78	1.77	-	4.32	5.34	
DC5107 BGII	7.4	-	10.75	2.24	-	7.73	7.03	
US 723 BGII	7.73	-	6.07	3.02	-	1.92	4.68	
GSBHH 230 BGII	9.18	-	5.87	2.95	-	5.45	5.86	
KCH9264 BGII	5.65	-	5.20	2.69	-	11.70	6.31	
RCH1196BGII	7.1	-	4.90	2.68	-	5.57	5.06	
BIOSEED 6004 BGII	6.88	-	5.90	4.07	-	3.22	5.01	
RAHH 1001 BGII	11.49	-	7.41	3.52	-	6.05	7.12	
Core 106 BG II	5.89	-	3.85	2.56	-	4.44	4.18	
RCH1199BGII	9.76	-	6.75	3.04	-	5.23	6.19	
G.Cot.Hy-22 BG-II	5.02	-	5.04	4.74	-	0.56	3.84	
GSBHH 225 BGII	10.48	-	9.61	3.66	-	3.22	6.74	
VSCH - 522 BG II	8.32	-	4.26	3.29	-	0.45	4.08	
C 9341 BGII	4.86	-	5.34	2.22	-	0.00	3.11	
KCH9266 BGII	10.99	-	7.06	2.98	-	2.89	5.98	
ECH 999 BG II	10.26	-	4.22	3.36	-	6.11	5.99	
KCH9265 BGII	5.43	-	6.20	2.49	-	1.50	3.90	
RAHH 1003 BGII	12.23	-	4.35	4.12	-	6.32	6.76	
NBCH-6737 BG II	11.81	-	4.78	3.76	-	1.37	5.43	
TBG 23/22 BG II	9.9	-	4.11	3.36	-	4.86	5.56	
NCS 2025 Bt2	11.33	-	7.18	2.82	-	0.00	5.33	
PRCH 2799 Bt2 (ZC1)	8.94	-	6.76	3.99	-	0.00	4.92	
PRCH 7557 Bt2	8.66	-	6.28	3.87	-	6.16	6.24	

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – No. of Sprays for Insect- Pests

Name of Entry	Number of sprays for Insect- pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
US 722 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
PCH 2494 Bt2	7.00	-	4.00	5.00	-	3.00	4.75	
GJBHH-2204 BG-II	7.00	-	4.00	5.00	-	3.00	4.75	
NBC 2020 BG II (ZC2)	7.00	-	4.00	5.00	-	3.00	4.75	
TBG 23/20 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
VPCH-456 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
DC5107 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
US 723 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
GSBHH 230 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
KCH9264 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
RCH1196BGII	7.00	-	4.00	5.00	-	3.00	4.75	
BIOSEED 6004 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
RAHH 1001 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
Core 106 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
RCH1199BGII	7.00	-	4.00	5.00	-	3.00	4.75	
G.Cot.Hy-22 BG-II	7.00	-	4.00	5.00	-	3.00	4.75	
GSBHH 225 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
VSCH - 522 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
C 9341 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
KCH9266 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
ECH 999 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
KCH9265 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
RAHH 1003 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
NBCH-6737 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
TBG 23/22 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
NCS 2025 Bt2	7.00	-	4.00	5.00	-	3.00	4.75	
PRCH 2799 Bt2 (ZC1)	7.00	-	4.00	5.00	-	3.00	4.75	
PRCH 7557 Bt2	7.00	-	4.00	5.00	-	3.00	4.75	

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Reaction to Diseases

A. Criteria used for Evaluation against Cotton leaf curl virus disease:

Percent Disease index (PDI)	Disease reaction (DR)
0	Immune/disease free
0.1-10	Highly Resistant
10.1-20	Resistant
20.1-30	Moderately Resistant
30.1-40	Moderately Susceptible
40.1-50	Susceptible
>50	Highly Susceptible

Note: The hybrids/varieties up to moderately susceptible disease reaction are permissible.

B. Criteria used for Evaluation against Fungal foliar diseases, bacterial leaf blight, grey mildew, TSV and boll rot

Percent Disease index (PDI)	Disease Reaction (DR)
0	Immune/disease free
0.1-25	Resistant
25.1-50	Moderately Resistant
50.1-75	Moderately Susceptible
>75	Susceptible

Note: The disease reaction (DR) less than the local/Zonal check will be permissible.

C. Criteria used for Evaluation against root rot

Percent Disease index (PDI)/ Mortality (%)	Disease Reaction (DR)
0	Immune/disease free
0.1-5	Highly Resistant
6-15	Resistant
16-25	Moderately Susceptible
>26	Susceptible

Abbreviations:

ALB=Alternaria leaf blight
 BLB= Bacterial leaf blight
 CLCuD= Cotton leaf curl virus disease
 CLS= Cercospora leaf spot
 CoLS= Corynespora leaf spot
 FFS= fungal foliar spots (Alternaria/Myrothecium/Cercospora)

DR= Disease reaction
 GM= Grey mildew
 MLS= Myrothecium leaf spot
 PDI= percent disease index (%)
 TSV= Tobacco streak virus



Table 1(a): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET- Hybrids IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
10	52001	US 722 BGII	16.5	R	0.0	DF	21.7	R	17.0	R	20.0	R	0.0	DF	0.0	DF	0.0	DF	4.3	R	0.0	DF	0.0	DF
18	52002	PCH 2494 Bt2	23.8	R	1.5	R	27.0	MR	26.2	MR	13.3	R	0.0	DF	0.0	DF	9.2	R	5.4	R	8.4	R	0.0	DF
26	52003	GJBHH-2204 BG-II	22.2	R	0.0	DF	21.0	R	33.7	MR	8.9	R	0.0	DF	0.0	DF	11.1	R	9.2	R	9.7	R	0.0	DF
1	52004	NBC 2020 BG II (ZC2)	12.7	R	0.0	DF	22.2	R	17.8	R	22.2	R	0.0	DF	0.0	DF	13.5	R	8.1	R	8.5	R	0.0	DF
11	52005	TBG 23/20 BG II	14.8	R	0.0	DF	31.8	MR	22.8	R	8.9	R	0.0	DF	0.0	DF	0.0	DF	10.2	R	10.2	R	0.0	DF
19	52006	VPCH-456 BG II	23.5	R	0.3	R	33.2	MR	27.0	MR	20.0	R	0.0	DF	0.0	DF	0.0	DF	10.5	R	8.1	R	0.0	DF
25	52007	DC5107 BGII	20.3	R	0.0	DF	24.3	R	25.2	MR	22.2	R	0.0	DF	0.0	DF	12.4	R	6.5	R	13.2	R	0.0	DF
2	52008	US 723 BGII	12.5	R	0.3	R	29.5	MR	13.7	R	24.4	R	0.0	DF	0.0	DF	12.5	R	13.5	R	9.3	R	0.0	DF
12	52009	GSBHH 230 BGII	15.3	R	0.0	DF	30.7	MR	17.7	R	15.6	R	0.0	DF	0.0	DF	0.0	DF	10.3	R	6.7	R	0.0	DF
20	52010	KCH9264 BGII	9.8	R	0.0	DF	18.7	R	11.0	R	11.1	R	0.0	DF	0.0	DF	11.8	R	7.4	R	9.2	R	0.0	DF
28	52011	RCH1196BGII	12.3	R	0.5	R	18.2	R	12.7	R	15.6	R	0.0	DF	0.0	DF	0.0	DF	7.3	R	11.2	R	0.0	DF
3	52012	BIOSEED 6004 BGII	10.5	R	0.0	DF	26.5	MR	22.2	R	20.0	R	0.0	DF	0.0	DF	0.0	DF	12.6	R	5.8	R	0.0	DF
13	52013	RAHH 1001 BGII	10.3	R	0.0	DF	33.0	MR	30.7	MR	17.8	R	0.0	DF	0.0	DF	10.4	R	8.5	R	8.5	R	0.0	DF
21	52014	Core 106 BG II	20.5	R	0.0	DF	18.3	R	20.5	R	20.0	R	0.0	DF	0.0	DF	12.3	R	8.0	R	9.4	R	0.0	DF
4	52015	RCH1199BGII	22.0	R	0.0	DF	13.5	R	21.0	R	28.9	MR	0.0	DF	0.0	DF	0.0	DF	7.4	R	8.3	R	0.0	DF
14	52016	G.Cot.Hy-22 BG-II	17.3	R	2.0	R	21.2	R	15.0	R	22.2	R	0.0	DF	0.0	DF	10.7	R	6.5	R	10.5	R	0.0	DF
22	52017	GSBHH 225 BGII	21.5	R	0.0	DF	33.7	MR	19.0	R	26.7	MR	0.0	DF	0.0	DF	8.3	R	8.5	R	6.7	R	0.0	DF
5	52018	VSCH - 522 BG II	18.7	R	0.0	DF	28.0	MR	26.3	MR	17.8	R	0.0	DF	0.0	DF	11.4	R	7.7	R	5.8	R	0.0	DF
15	52019	C 9341 BGII	17.2	R	0.2	R	27.3	MR	16.8	R	20.0	R	0.0	DF	0.0	DF	0.0	DF	5.8	R	10.9	R	0.0	DF
23	52020	KCH9266 BGII	12.8	R	0.0	DF	19.8	R	11.0	R	17.8	R	0.0	DF	0.0	DF	12.6	R	14.3	R	6.3	R	0.0	DF
6	52021	ECH 999 BG II	17.3	R	0.0	DF	19.8	R	27.0	MR	26.7	MR	0.0	DF	0.0	DF	13.7	R	14.9	R	7.4	R	0.0	DF
16	52022	KCH9265 BGII	19.7	R	0.5	R	25.7	MR	10.5	R	15.6	R	0.0	DF	0.0	DF	10.3	R	8.6	R	14.0	R	0.0	DF
24	52023	RAHH 1003 BGII	15.2	R	0.0	DF	20.3	R	21.3	R	15.6	R	0.0	DF	0.0	DF	0.0	DF	6.7	R	5.1	R	0.0	DF
7	52024	NBCH-6737 BG II	12.0	R	0.3	R	16.8	R	12.7	R	20.0	R	0.0	DF	0.0	DF	11.6	R	7.8	R	8.5	R	0.0	DF
17	52025	TBG 23/22 BG II	22.5	R	0.0	DF	27.2	MR	24.7	R	8.9	R	0.0	DF	0.0	DF	0.0	DF	11.5	R	11.7	R	0.0	DF
27	52026	NCS 2025 Bt2	24.2	R	0.3	R	27.8	MR	18.7	R	20.0	R	0.0	DF	0.0	DF	0.0	DF	10.3	R	4.3	R	0.0	DF
9	52027	PRCH 2799 Bt2 (ZC1)	15.8	R	0.0	DF	22.2	R	24.8	R	17.8	R	0.0	DF	0.0	DF	13.0	R	8.3	R	10.3	R	0.0	DF
8	52028	PRCH 7557 Bt2	18.8	R	0.0	DF	16.3	R	30.5	MR	15.6	R	0.0	DF	0.0	DF	0.0	DF	12.5	R	1.2	R	0.0	DF



Table 1(b): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET- Hybrids IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
10	52001	US 722 BGII	22.5	MR	10.0	R	10.0	R	0.0	DF
18	52002	PCH 2494 Bt2	30.0	MR	7.5	R	5.0	R	2.5	R
26	52003	GJBHH-2204 BG-II	27.5	MR	20.0	R	47.5	MR	7.5	R
1	52004	NBC 2020 BG II (ZC2)	32.5	MR	17.5	R	30.0	MR	2.5	R
11	52005	TBG 23/20 BG II	42.5	MR	25.0	R	55.0	MS	0.0	DF
19	52006	VPCH-456 BG II	20.0	R	20.0	R	32.5	MR	0.0	DF
25	52007	DC5107 BGII	42.5	MS	7.5	R	60.0	MS	0.0	DF
2	52008	US 723 BGII	30.0	MS	52.5	MS	37.5	MR	0.0	DF
12	52009	GSBHH 230 BGII	40.0	MR	37.5	MR	27.5	MR	0.0	DF
20	52010	KCH9264 BGII	32.5	MR	12.5	R	30.0	MR	2.5	R
28	52011	RCH1196BGII	30.0	MR	7.5	R	27.5	MR	12.5	R
3	52012	BIOSEED 6004 BGII	30.0	MS	10.0	R	50.0	MR	0.0	DF
13	52013	RAHH 1001 BGII	22.5	R	22.5	R	17.5	R	0.0	DF
21	52014	Core 106 BG II	62.5	MS	10.0	R	30.0	MR	17.5	R
4	52015	RCH1199BGII	30.0	MR	15.0	R	20.0	R	17.5	R
14	52016	G.Cot.Hy-22 BG-II	32.5	MR	12.5	S	10.0	R	5.0	R
22	52017	GSBHH 225 BGII	27.5	MR	15.0	R	15.0	R	7.5	R
5	52018	VSCH - 522 BG II	32.5	MR	20.0	R	57.5	MS	0.0	DF
15	52019	C 9341 BGII	27.5	MR	5.0	R	30.0	MR	0.0	DF
23	52020	KCH9266 BGII	32.5	MR	47.5	MR	17.5	R	0.0	DF
6	52021	ECH 999 BG II	30.0	MR	15.0	R	17.5	R	0.0	DF
16	52022	KCH9265 BGII	32.5	MR	10.0	R	15.0	R	0.0	DF
24	52023	RAHH 1003 BGII	27.5	MR	10.0	R	7.5	R	0.0	DF
7	52024	NBCH-6737 BG II	30.0	MR	12.5	R	12.5	R	12.5	R
17	52025	TBG 23/22 BG II	30.0	MR	42.5	MR	42.5	MR	7.5	R
27	52026	NCS 2025 Bt2	27.5	MR	22.5	R	17.5	R	15.0	R
9	52027	PRCH 2799 Bt2 (ZC1)	22.5	R	12.5	R	17.5	R	7.5	R
8	52028	PRCH 7557 Bt2	25.0	R	17.5	R	30.0	MR	0.0	DF



Table 1(c): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET- Hybrids IRR) under Protected and Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions									
			Coregenes , Jalgaon		Kaveri, Aurangabad							
			Leaf spot		ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
10	52001	US 722 BGII	19.2	R	11.1	R	6.6	R	5.3	R	1.9	R
18	52002	PCH 2494 Bt2	21.8	R	7.4	R	7.6	R	3.9	R	1.8	R
26	52003	GJBHH-2204 BG-II	23.3	R	10.8	R	6.5	R	5.7	R	1.3	R
1	52004	NBC 2020 BG II (ZC2)	19.3	R	8.5	R	7.6	R	6.6	R	2.2	R
11	52005	TBG 23/20 BG II	22.2	R	9.7	R	7.4	R	4.6	R	2.1	R
19	52006	VPCH-456 BG II	26.3	MR	10.8	R	7.3	R	5.2	R	2.5	R
25	52007	DC5107 BGII	21.0	R	10.3	R	9.7	R	6.8	R	1.0	R
2	52008	US 723 BGII	24.1	R	8.9	R	8.3	R	4.5	R	1.4	R
12	52009	GSBHH 230 BGII	22.7	R	9.1	R	9.9	R	5.2	R	1.8	R
20	52010	KCH9264 BGII	25.8	MR	6.3	R	5.5	R	3.2	R	0.8	R
28	52011	RCH1196BGII	23.4	R	11.4	R	7.7	R	4.2	R	1.3	R
3	52012	BIOSEED 6004 BGII	24.9	R	7.3	R	25.3	MR	5.0	R	1.9	R
13	52013	RAHH 1001 BGII	23.7	R	9.3	R	7.3	R	4.2	R	2.0	R
21	52014	Core 106 BG II	18.9	R	10.7	R	7.2	R	5.1	R	2.3	R
4	52015	RCH1199BGII	25.1	R	20.3	R	6.5	R	4.3	R	1.3	R
14	52016	G. Cot.Hy-22 BG-II	21.3	R	9.8	R	11.2	R	5.8	R	2.7	R
22	52017	GSBHH 225 BGII	23.3	R	11.2	R	8.1	R	7.4	R	3.4	R
5	52018	VSCH - 522 BG II	20.3	R	11.7	R	8.7	R	5.4	R	2.4	R
15	52019	C 9341 BGII	21.4	R	7.7	R	6.9	R	4.2	R	1.2	R
23	52020	KCH9266 BGII	25.6	MR	5.8	R	6.2	R	2.9	R	0.8	R
6	52021	ECH 999 BG II	22.4	R	11.1	R	6.7	R	4.3	R	2.1	R
16	52022	KCH9265 BGII	23.1	R	6.6	R	5.8	R	3.3	R	0.7	R
24	52023	RAHH 1003 BGII	22.8	R	11.2	R	7.8	R	5.3	R	1.3	R
7	52024	NBCH-6737 BG II	25.6	MR	9.9	R	10.7	R	6.8	R	2.8	R
17	52025	TBG 23/22 BG II	23.1	R	9.5	R	7.4	R	5.4	R	1.6	R
27	52026	NCS 2025 Bt2	25.1	R	10.7	R	6.6	R	4.6	R	2.7	R
9	52027	PRCH 2799 Bt2 (ZC1)	25.7	R	11.2	R	7.0	R	5.2	R	2.8	R
8	52028	PRCH 7557 Bt2	28.8	MR	25.0	MR	23.1	R	4.7	R	2.4	R



Evaluation under Unprotected Condition for Insect pests and diseases incidences

Reaction to Insect Pest

Table: Initial H X H trial in Central Zone under Unprotected Conditions –Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark	
	JU	AN	TA	RA	KH	BP	Mean		
US 722 BGII	6.53	-	4.20	28.03	-	5.53	11.08	AETL	
PCH 2494 Bt2	8.93	-	3.33	31.83	-	0.00	11.03	AETL	
GJBHH-2204 BG-II	7.27	-	4.40	30.77	-	0.00	10.61	AETL	
NBC 2020 BG II (ZC2)	8.07	-	4.13	30.80	-	0.00	10.75	AETL	
TBG 23/20 BG II	9.53	-	4.07	30.70	-	5.23	12.38	AETL	
VPCH-456 BG II	6.27	-	3.53	31.97	-	0.22	10.50	AETL	
DC5107 BGII	9.60	-	4.87	32.23	-	4.94	12.91	AETL	
US 723 BGII	10.20	-	4.20	27.97	-	0.44	10.70	AETL	
GSBHH 230 BGII	7.67	-	4.40	29.00	-	0.95	10.50	AETL	
KCH9264 BGII	8.60	-	4.60	27.27	-	5.45	11.48	AETL	
RCH1196BGII	6.67	-	4.67	27.67	-	2.96	10.49	AETL	
BIOSEED 6004 BGII	7.07	-	4.33	28.97	-	6.50	11.72	AETL	
RAHH 1001 BGII	10.00	-	4.47	27.73	-	2.61	11.20	AETL	
Core 106 BG II	7.00	-	4.53	29.73	-	0.00	10.32	AETL	
RCH1199BGII	7.47	-	4.60	29.87	-	0.00	10.48	AETL	
G.Cot.Hy-22 BG-II	6.87	-	4.53	28.77	-	0.00	10.04	AETL	
GSBHH 225 BGII	8.93	-	4.27	26.63	-	0.00	9.96	BETL	
VSCH - 522 BG II	8.20	-	4.73	28.77	-	0.00	10.43	AETL	
C 9341 BGII	8.53	-	4.73	25.10	-	0.00	9.59	BETL	
KCH9266 BGII	10.47	-	4.80	25.73	-	2.61	10.90	AETL	
ECH 999 BG II	11.07	-	5.00	28.40	-	5.66	12.53	AETL	
KCH9265 BGII	7.73	-	5.00	29.60	-	0.00	10.58	AETL	
RAHH 1003 BGII	9.47	-	4.33	27.57	-	0.00	10.34	AETL	
NBCH-6737 BG II	10.80	-	4.20	26.87	-	0.65	10.63	AETL	
TBG 23/22 BG II	7.93	-	4.93	24.87	-	0.65	9.60	BETL	
NCS 2025 Bt2	9.27	-	4.47	23.73	-	0.87	9.58	BETL	
PRCH 2799 Bt2 (ZC1)	8.60	-	4.80	26.47	-	4.79	11.16	AETL	
PRCH 7557 Bt2	8.27	-	4.67	25.50	-	4.79	10.81	AETL	

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Table: Initial H X H trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	7.07	-	2.73	4.27	-	0.19	3.56	BETL
PCH 2494 Bt2	6.80	-	3.00	3.80	-	1.11	3.68	BETL
GJBHH-2204 BG-II	7.40	-	2.73	4.33	-	1.04	3.88	BETL
NBC 2020 BG II (ZC2)	6.47	-	2.73	4.17	-	2.09	3.86	BETL
TBG 23/20 BG II	10.40	-	2.53	4.27	-	1.33	4.63	BETL
VPCH-456 BG II	7.60	-	2.73	3.97	-	1.18	3.87	BETL
DC5107 BGII	8.27	-	2.67	4.60	-	0.96	4.12	BETL
US 723 BGII	9.20	-	2.13	4.20	-	1.79	4.33	BETL
GSBHH 230 BGII	7.27	-	2.80	4.00	-	0.99	3.76	BETL
KCH9264 BGII	9.93	-	2.27	3.83	-	1.94	4.49	BETL
RCH1196BGII	6.40	-	2.27	4.07	-	1.47	3.55	BETL
BIOSEED 6004 BGII	7.60	-	2.53	3.77	-	0.42	3.58	BETL
RAHH 1001 BGII	10.27	-	2.73	3.90	-	1.11	4.50	BETL
Core 106 BG II	7.00	-	2.87	3.63	-	1.72	3.81	BETL
RCH1199BGII	8.20	-	2.33	3.67	-	0.56	3.69	BETL
G.Cot.Hy-22 BG-II	6.60	-	2.60	3.53	-	0.49	3.31	BETL
GSBHH 225 BGII	9.00	-	2.33	3.60	-	1.51	4.11	BETL
VSCH - 522 BG II	7.90	-	2.87	3.83	-	0.30	3.73	BETL
C 9341 BGII	9.87	-	1.87	3.70	-	0.70	4.03	BETL
KCH9266 BGII	8.73	-	1.87	3.60	-	0.50	3.68	BETL
ECH 999 BG II	9.47	-	2.87	3.53	-	0.30	4.04	BETL
KCH9265 BGII	9.27	-	2.40	3.60	-	0.80	4.02	BETL
RAHH 1003 BGII	9.67	-	2.60	3.37	-	0.90	4.13	BETL
NBCH-6737 BG II	7.80	-	2.07	3.80	-	0.00	3.42	BETL
TBG 23/22 BG II	7.93	-	2.80	3.93	-	0.30	3.74	BETL
NCS 2025 Bt2	8.87	-	2.80	3.53	-	1.66	4.21	BETL
PRCH 2799 Bt2 (ZC1)	8.27	-	2.73	3.83	-	1.94	4.19	BETL
PRCH 7557 Bt2	8.53	-	2.67	3.97	-	1.06	4.06	BETL

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Table: Initial H X H trial in Central Zone under Unprotected Conditions –JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP*	Mean	
US 722 BGII	II	-	I	II	-	-	II	
PCH 2494 Bt2	II	-	I	I	-	-	I	
GJBHH-2204 BG-II	II	-	I	II	-	-	II	
NBC 2020 BG II (ZC2)	II	-	I	I	-	-	I	
TBG 23/20 BG II	III	-	I	I	-	-	II	
VPCH-456 BG II	II	-	I	I	-	-	I	
DC5107 BGII	II	-	II	I	-	-	II	
US 723 BGII	II	-	I	I	-	-	I	
GSBHH 230 BGII	II	-	I	I	-	-	I	
KCH9264 BGII	II	-	I	I	-	-	I	
RCH1196BGII	II	-	I	I	-	-	I	
BIOSEED 6004 BGII	II	-	I	I	-	-	I	
RAHH 1001 BGII	III	-	I	I	-	-	I	
Core 106 BG II	II	-	I	I	-	-	I	
RCH1199BGII	II	-	I	I	-	-	I	
G.Cot.Hy-22 BG-II	II	-	I	I	-	-	I	
GSBHH 225 BGII	II	-	I	II	-	-	II	
VSCH - 522 BG II	II	-	I	I	-	-	I	
C 9341 BGII	II	-	I	I	-	-	I	
KCH9266 BGII	II	-	I	I	-	-	I	
ECH 999 BG II	II	-	I	II	-	-	II	
KCH9265 BGII	II	-	I	I	-	-	I	
RAHH 1003 BGII	II	-	I	I	-	-	I	
NBCH-6737 BG II	II	-	I	I	-	-	I	
TBG 23/22 BG II	II	-	I	II	-	-	II	
NCS 2025 Bt2	II	-	I	I	-	-	I	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	-	I	
PRCH 7557 Bt2	II	-	I	I	-	-	I	

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Table: Initial H X H trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	14.20	-	3.20	30.63	-	0.00	12.01	BETL
PCH 2494 Bt2	9.73	-	2.67	29.50	-	0.00	10.48	BETL
GJBHH-2204 BG-II	10.07	-	3.20	30.93	-	0.00	11.05	BETL
NBC 2020 BG II (ZC2)	9.87	-	4.40	33.23	-	0.00	11.88	BETL
TBG 23/20 BG II	10.93	-	4.20	29.27	-	0.00	11.10	BETL
VPCH-456 BG II	13.13	-	3.20	26.20	-	0.00	10.63	BETL
DC5107 BGII	12.47	-	3.40	31.17	-	0.00	11.76	BETL
US 723 BGII	12.20	-	3.87	32.17	-	0.07	12.08	BETL
GSBHH 230 BGII	8.87	-	3.33	29.37	-	0.00	10.39	BETL
KCH9264 BGII	13.67	-	2.73	29.57	-	0.00	11.49	BETL
RCH1196BGII	11.33	-	2.93	28.50	-	0.00	10.69	BETL
BIOSEED 6004 BGII	11.80	-	2.73	25.77	-	0.00	10.08	BETL
RAHH 1001 BGII	13.87	-	2.87	27.73	-	0.00	11.12	BETL
Core 106 BG II	9.00	-	3.60	27.37	-	0.00	9.99	BETL
RCH1199BGII	11.07	-	3.13	29.63	-	0.00	10.96	BETL
G.Cot.Hy-22 BG-II	9.20	-	3.40	27.47	-	0.00	10.02	BETL
GSBHH 225 BGII	10.40	-	4.00	27.50	-	0.00	10.48	BETL
VSCH - 522 BG II	13.00	-	3.47	27.27	-	0.00	10.93	BETL
C 9341 BGII	11.20	-	4.07	25.90	-	0.00	10.29	BETL
KCH9266 BGII	10.63	-	3.27	27.67	-	0.00	10.39	BETL
ECH 999 BG II	10.20	-	4.07	24.80	-	0.00	9.77	BETL
KCH9265 BGII	14.47	-	3.13	24.80	-	0.00	10.60	BETL
RAHH 1003 BGII	14.00	-	3.13	25.60	-	0.00	10.68	BETL
NBCH-6737 BG II	13.40	-	4.13	25.73	-	0.00	10.82	BETL
TBG 23/22 BG II	13.27	-	3.27	22.27	-	0.00	9.70	BETL
NCS 2025 Bt2	12.77	-	3.60	25.00	-	0.00	10.34	BETL
PRCH 2799 Bt2 (ZC1)	10.93	-	2.33	24.67	-	0.00	9.48	BETL
PRCH 7557 Bt2	12.60	-	2.93	25.13	-	0.00	10.17	BETL

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Table: Initial H X H trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	6.87	-	0.07	2.87	-	0.52	2.58	BETL
PCH 2494 Bt2	6.67	-	0.27	2.47	-	0.28	2.42	BETL
GJBHH-2204 BG-II	7.10	-	0.13	2.50	-	0.43	2.54	BETL
NBC 2020 BG II (ZC2)	7.30	-	0.20	3.17	-	0.51	2.79	BETL
TBG 23/20 BG II	7.23	-	0.00	2.77	-	0.77	2.69	BETL
VPCH-456 BG II	8.70	-	0.00	2.87	-	0.19	2.94	BETL
DC5107 BGII	6.47	-	0.27	3.00	-	0.22	2.49	BETL
US 723 BGII	8.40	-	0.40	2.90	-	0.43	3.03	BETL
GSBHH 230 BGII	5.70	-	0.13	2.87	-	0.36	2.26	BETL
KCH9264 BGII	6.13	-	0.13	2.80	-	0.07	2.28	BETL
RCH1196BGII	8.20	-	0.27	2.73	-	0.38	2.89	BETL
BIOSEED 6004 BGII	7.60	-	0.33	2.63	-	0.59	2.79	BETL
RAHH 1001 BGII	10.17	-	0.13	2.90	-	0.51	3.43	BETL
Core 106 BG II	5.97	-	0.00	2.83	-	0.78	2.39	BETL
RCH1199BGII	8.00	-	0.40	2.67	-	0.17	2.81	BETL
G.Cot.Hy-22 BG-II	6.30	-	0.07	2.83	-	0.72	2.48	BETL
GSBHH 225 BGII	9.40	-	0.20	2.70	-	0.72	3.26	BETL
VSCH - 522 BG II	9.97	-	0.00	2.90	-	0.00	3.22	BETL
C 9341 BGII	9.77	-	0.13	2.90	-	0.33	3.28	BETL
KCH9266 BGII	9.20	-	0.00	2.57	-	0.13	2.98	BETL
ECH 999 BG II	9.60	-	0.20	3.07	-	0.29	3.29	BETL
KCH9265 BGII	9.07	-	0.00	2.73	-	0.26	3.01	BETL
RAHH 1003 BGII	10.60	-	0.07	2.77	-	0.26	3.42	BETL
NBCH-6737 BG II	10.37	-	0.13	2.90	-	0.36	3.44	BETL
TBG 23/22 BG II	7.77	-	0.13	2.90	-	0.69	2.87	BETL
NCS 2025 Bt2	5.80	-	0.13	2.63	-	0.53	2.28	BETL
PRCH 2799 Bt2 (ZC1)	8.83	-	0.20	2.73	-	0.36	3.03	BETL
PRCH 7557 Bt2	8.43	-	0.20	2.80	-	0.20	2.91	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	0.00	-	0.00	2.17	-	0.42	0.65	
PCH 2494 Bt2	0.00	-	0.00	1.97	-	0.16	0.53	
GJBHH-2204 BG-II	0.00	-	0.00	1.90	-	0.51	0.60	
NBC 2020 BG II (ZC2)	0.00	-	0.00	2.13	-	0.64	0.69	
TBG 23/20 BG II	0.00	-	0.00	2.07	-	0.56	0.66	
VPCH-456 BG II	0.00	-	0.00	1.83	-	0.16	0.50	
DC5107 BGII	0.00	-	0.00	1.87	-	0.00	0.47	
US 723 BGII	0.00	-	0.00	1.83	-	0.31	0.54	
GSBHH 230 BGII	0.00	-	0.00	2.13	-	0.31	0.61	
KCH9264 BGII	0.00	-	0.00	2.00	-	0.13	0.53	
RCH1196BGII	0.00	-	0.00	1.90	-	0.13	0.51	
BIOSEED 6004 BGII	0.00	-	0.00	1.97	-	0.29	0.56	
RAHH 1001 BGII	0.00	-	0.00	1.83	-	0.00	0.46	
Core 106 BG II	0.00	-	0.00	2.00	-	0.00	0.50	
RCH1199BGII	0.00	-	0.00	1.80	-	0.16	0.49	
G.Cot.Hy-22 BG-II	0.00	-	0.00	2.03	-	0.31	0.59	
GSBHH 225 BGII	0.00	-	0.00	2.17	-	0.16	0.58	
VSCH - 522 BG II	0.00	-	0.00	2.20	-	0.36	0.64	
C 9341 BGII	0.00	-	0.00	2.00	-	0.47	0.62	
KCH9266 BGII	0.00	-	0.00	2.07	-	0.53	0.65	
ECH 999 BG II	0.00	-	0.00	1.87	-	0.40	0.57	
KCH9265 BGII	0.00	-	0.00	2.07	-	0.00	0.52	
RAHH 1003 BGII	0.00	-	0.00	1.87	-	0.31	0.54	
NBCH-6737 BG II	0.00	-	0.00	1.93	-	0.31	0.56	
TBG 23/22 BG II	0.00	-	0.00	1.83	-	0.07	0.48	
NCS 2025 Bt2	0.00	-	0.00	2.30	-	0.00	0.58	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	2.10	-	0.00	0.53	
PRCH 7557 Bt2	0.00	-	0.00	2.37	-	0.00	0.59	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
US 722 BGII	3.30	-	0.00	4.50	-	4.78	3.14	AETL
PCH 2494 Bt2	4.00	-	0.00	4.00	-	0.00	2.00	AETL
GJBHH-2204 BG-II	3.20	-	0.00	4.33	-	0.00	1.88	AETL
NBC 2020 BG II (ZC2)	3.80	-	0.13	4.33	-	0.00	2.07	AETL
TBG 23/20 BG II	4.20	-	0.00	4.83	-	0.78	2.45	AETL
VPCH-456 BG II	4.10	-	0.00	4.83	-	0.00	2.23	AETL
DC5107 BGII	3.60	-	0.00	4.33	-	0.00	1.98	AETL
US 723 BGII	3.80	-	0.00	4.17	-	0.00	1.99	AETL
GSBHH 230 BGII	4.50	-	0.00	4.67	-	0.00	2.29	AETL
KCH9264 BGII	3.10	-	0.20	4.67	-	0.00	1.99	AETL
RCH1196BGII	3.50	-	0.00	4.67	-	0.78	2.24	AETL
BIOSEED 6004 BGII	3.40	-	0.00	4.50	-	2.67	2.64	AETL
RAHH 1001 BGII	5.60	-	0.00	4.67	-	0.00	2.57	AETL
Core 106 BG II	3.10	-	0.00	4.50	-	0.00	1.90	AETL
RCH1199BGII	4.70	-	0.13	4.50	-	0.00	2.33	AETL
G.Cot.Hy-22 BG-II	2.80	-	0.00	4.50	-	0.00	1.83	AETL
GSBHH 225 BGII	5.30	-	0.00	4.67	-	0.00	2.49	AETL
VSCH - 522 BG II	4.00	-	0.00	4.00	-	0.00	2.00	AETL
C 9341 BGII	2.60	-	0.00	4.00	-	0.00	1.65	AETL
KCH9266 BGII	4.30	-	0.13	4.50	-	0.00	2.23	AETL
ECH 999 BG II	5.10	-	0.00	4.00	-	0.00	2.28	AETL
KCH9265 BGII	2.90	-	0.00	4.00	-	0.00	1.73	AETL
RAHH 1003 BGII	6.00	-	0.20	4.50	-	0.00	2.68	AETL
NBCH-6737 BG II	5.80	-	0.00	4.33	-	0.00	2.53	AETL
TBG 23/22 BG II	5.00	-	0.00	4.50	-	0.00	2.38	AETL
NCS 2025 Bt2	5.40	-	0.00	4.33	-	0.00	2.43	AETL
PRCH 2799 Bt2 (ZC1)	4.40	-	0.00	4.33	-	0.00	2.18	AETL
PRCH 7557 Bt2	4.20	-	0.00	4.17	-	0.00	2.09	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



**Table: Initial H X H trial in Central Zone under Unprotected Conditions – Green Boll
Damage due to ABW/SBW/TC**

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 2494 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GJBHH-2204 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/20 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VPCH-456 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
DC5107 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 723 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 230 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9264 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1196BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
BIOSEED 6004 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1001 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
Core 106 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RCH1199BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
G.Cot.Hy-22 BG-II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GSBHH 225 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
VSCH - 522 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
C 9341 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9266 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 999 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH9265 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
RAHH 1003 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBCH-6737 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
TBG 23/22 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 2025 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 7557 Bt2	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions –Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) /10 bolls destructive sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
US 722 BGII	10.54	-	10.00	28.33	-	6.67	13.88	AETL
PCH 2494 Bt2	5.59	-	6.67	28.33	-	0.00	10.15	AETL
GJBHH-2204 BG-II	4.63	-	3.33	23.33	-	0.00	7.82	BETL
NBC 2020 BG II (ZC2)	5.48	-	10.00	25.00	-	0.00	10.12	AETL
TBG 23/20 BG II	5.73	-	3.33	31.67	-	10.00	12.68	AETL
VPCH-456 BG II	6.25	-	0.00	21.67	-	8.89	9.20	BETL
DC5107 BGII	5.13	-	6.67	28.33	-	0.00	10.03	AETL
US 723 BGII	5.41	-	0.00	31.67	-	0.00	9.27	BETL
GSBHH 230 BGII	6.20	-	10.00	28.33	-	0.00	11.13	AETL
KCH9264 BGII	4.30	-	13.33	26.67	-	0.00	11.07	AETL
RCH1196BGII	5.01	-	0.00	20.00	-	7.78	8.20	BETL
BIOSEED 6004 BGII	4.88	-	3.33	25.00	-	8.89	10.53	AETL
RAHH 1001 BGII	7.21	-	6.67	20.00	-	0.00	8.47	BETL
Core 106 BG II	4.43	-	0.00	23.33	-	0.00	6.94	BETL
RCH1199BGII	6.51	-	6.67	21.67	-	0.00	8.71	BETL
G.Cot.Hy-22 BG-II	4.61	-	0.00	25.00	-	0.00	7.40	BETL
GSBHH 225 BGII	6.76	-	0.00	25.00	-	0.00	7.94	BETL
VSCH - 522 BG II	5.63	-	3.33	25.00	-	0.00	8.49	BETL
C 9341 BGII	4.39	-	6.67	16.67	-	0.00	6.93	BETL
KCH9266 BGII	6.80	-	6.67	25.00	-	0.00	9.62	BETL
ECH 999 BG II	6.70	-	0.00	28.33	-	4.44	9.87	BETL
KCH9265 BGII	4.67	-	0.00	23.33	-	0.00	7.00	BETL
RAHH 1003 BGII	7.40	-	10.00	23.33	-	0.00	10.18	AETL
NBCH-6737 BG II	7.29	-	0.00	25.00	-	0.00	8.07	BETL
TBG 23/22 BG II	6.61	-	0.00	25.00	-	0.00	7.90	BETL
NCS 2025 Bt2	7.12	-	3.33	25.00	-	0.00	8.86	BETL
PRCH 2799 Bt2 (ZC1)	6.07	-	0.00	21.67	-	0.00	6.93	BETL
PRCH 7557 Bt2	5.48	-	0.00	23.33	-	0.00	7.20	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	12.63	-	2.50	13.58	-	39.95	17.17	
PCH 2494 Bt2	14.17	-	15.56	12.57	-	22.94	16.31	
GJBHH-2204 BG-II	12.36	-	5.00	12.75	-	39.24	17.34	
NBC 2020 BG II (ZC2)	13.77	-	4.76	9.43	-	38.35	16.58	
TBG 23/20 BG II	14.71	-	5.83	10.50	-	7.13	9.54	
VPCH-456 BG II	15.75	-	4.81	8.09	-	12.29	10.23	
DC5107 BGII	13.36	-	9.72	8.25	-	29.97	15.33	
US 723 BGII	12.56	-	4.90	12.67	-	6.54	9.17	
GSBHH 230 BGII	15.44	-	3.70	11.55	-	26.87	14.39	
KCH9264 BGII	11.90	-	3.48	10.67	-	28.54	13.65	
RCH1196BGII	13.17	-	3.31	8.33	-	22.42	11.81	
BIOSEED 6004 BGII	12.73	-	4.03	16.10	-	14.58	11.86	
RAHH 1001 BGII	17.30	-	1.55	12.72	-	20.61	13.04	
Core 106 BG II	12.10	-	8.82	11.90	-	17.97	12.70	
RCH1199BGII	15.83	-	4.72	14.32	-	28.37	15.81	
G.Cot.Hy-22 BG-II	11.48	-	6.36	17.15	-	4.40	9.85	
GSBHH 225 BGII	16.57	-	8.00	14.12	-	16.00	13.67	
VSCH - 522 BG II	14.37	-	4.10	11.18	-	15.60	11.31	
C 9341 BGII	11.19	-	3.09	8.30	-	0.00	5.65	
KCH9266 BGII	16.76	-	4.35	9.20	-	18.29	12.15	
ECH 999 BG II	16.45	-	11.43	10.44	-	20.33	14.66	
KCH9265 BGII	11.60	-	12.38	9.08	-	9.29	10.59	
RAHH 1003 BGII	17.84	-	16.13	13.03	-	25.56	18.14	
NBCH-6737 BG II	17.48	-	7.08	12.21	-	7.02	10.95	
TBG 23/22 BG II	16.27	-	7.45	11.67	-	22.54	14.48	
NCS 2025 Bt2	17.18	-	6.14	10.56	-	0.00	8.47	
PRCH 2799 Bt2 (ZC1)	15.21	-	3.79	13.45	-	0.00	8.11	
PRCH 7557 Bt2	14.77	-	8.26	11.57	-	30.91	16.38	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
US 722 BGII	7.09	-	9.10	3.43	-	21.58	10.30	
PCH 2494 Bt2	8.77	-	23.23	3.54	-	13.43	12.24	
GJBHH-2204 BG-II	6.80	-	12.92	3.50	-	14.74	9.49	
NBC 2020 BG II (ZC2)	8.49	-	12.60	3.42	-	5.85	7.59	
TBG 23/20 BG II	9.10	-	13.97	4.25	-	1.78	7.28	
VPCH-456 BG II	10.09	-	12.67	3.61	-	7.74	8.53	
DC5107 BGII	8.00	-	18.17	3.80	-	13.86	10.96	
US 723 BGII	8.33	-	12.79	4.24	-	3.44	7.20	
GSBHH 230 BGII	9.78	-	11.10	4.64	-	9.77	8.82	
KCH9264 BGII	6.25	-	10.75	4.44	-	20.97	10.60	
RCH1196BGII	7.90	-	10.48	5.20	-	9.99	8.39	
BIOSEED 6004 BGII	7.68	-	11.58	3.28	-	5.77	7.08	
RAHH 1001 BGII	12.09	-	7.15	3.73	-	10.84	8.45	
Core 106 BG II	6.49	-	17.28	4.29	-	7.97	9.01	
RCH1199BGII	10.36	-	12.54	4.66	-	9.37	9.23	
G.Cot.Hy-22 BG-II	5.62	-	14.61	5.35	-	1.01	6.65	
GSBHH 225 BGII	11.08	-	16.43	4.14	-	5.78	9.36	
VSCH - 522 BG II	8.92	-	11.68	4.18	-	0.81	6.40	
C 9341 BGII	5.46	-	10.13	4.22	-	0.00	4.95	
KCH9266 BGII	11.59	-	12.04	4.26	-	5.18	8.27	
ECH 999 BG II	10.86	-	19.76	4.53	-	10.95	11.52	
KCH9265 BGII	6.03	-	20.60	4.23	-	2.69	8.39	
RAHH 1003 BGII	12.83	-	23.68	4.65	-	11.33	13.12	
NBCH-6737 BG II	12.41	-	15.43	3.70	-	2.45	8.50	
TBG 23/22 BG II	10.50	-	15.84	3.96	-	8.72	9.75	
NCS 2025 Bt2	11.93	-	14.35	4.29	-	0.00	7.64	
PRCH 2799 Bt2 (ZC1)	9.54	-	11.22	4.43	-	0.00	6.30	
PRCH 7557 Bt2	9.26	-	16.71	4.64	-	11.05	10.41	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 1(d): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET- Hybrids IRR) under Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R	P DI	D R
10	52001	US 722 BGII	18.5	R	6.5	R	22.5	R	22	R	33.3	MR	0.0	DF	0.0	DF	7.8	R	5.9	R	6.3	R	0.0	DF
18	52002	PCH 2494 Bt2	25.5	MR	9.5	R	28	MR	27.5	R	20.0	R	0.0	DF	0.0	DF	25.8	MR	14.5	R	12.4	R	0.0	DF
26	52003	GJBHH-2204 BG-II	24.5	R	12.5	R	22	R	34	MR	6.7	R	0.0	DF	0.0	DF	25.5	MR	12.6	R	27.5	MR	0.0	DF
1	52004	NBC 2020 BG II (ZC2)	14	R	10	R	23.5	R	26	MR	26.7	MR	0.0	DF	0.0	DF	30.6	MR	11.0	R	10.7	R	0.0	DF
11	52005	TBG 23/20 BG II	16.5	R	10	R	32.5	MR	23.5	R	13.3	R	0.0	DF	0.0	DF	10.2	R	28.3	MR	26.3	MR	0.0	DF
19	52006	VPCH-456 BG II	25	MR	8	R	34.5	MR	30	MR	33.3	MR	0.0	DF	0.0	DF	20.8	R	30.5	MR	10.4	R	0.0	DF
25	52007	DC5107 BGII	22	R	8.5	R	25	MR	34	MR	13.3	R	0.0	DF	0.0	DF	19.0	R	9.2	R	23.0	R	0.0	DF
2	52008	US 723 BGII	14	R	8	R	30	R	30	MR	26.7	MR	0.0	DF	0.0	DF	27.3	MR	28.8	MR	10.7	R	0.0	DF
12	52009	GSBHH 230 BGII	17.5	R	9.5	R	31.5	R	34	MR	6.7	R	0.0	DF	0.0	DF	8.0	R	13.0	R	8.9	R	0.0	DF
20	52010	KCH9264 BGII	11	R	8.5	R	19.5	R	32.5	MR	20.0	R	0.0	DF	0.0	DF	15.6	R	9.0	R	11.1	R	0.0	DF
28	52011	RCH1196BG I	14.5	R	8	R	19	R	22.5	R	20.0	R	0.0	DF	0.0	DF	9.9	R	12.8	R	13.6	R	0.0	DF
3	52012	BIOSEED 6004 BGII	12.5	R	8	R	27.5	MR	28	MR	26.7	MR	0.0	DF	0.0	DF	12.2	R	28.5	MR	7.0	R	0.0	DF
13	52013	RAHH 1001 BGII	12	R	11	R	34	MR	31.5	MR	26.7	MR	0.0	DF	0.0	DF	27.0	MR	10.2	R	9.3	R	0.0	DF
21	52014	Core 106 BG II	22.5	R	10	R	19.5	R	26	MR	33.3	MR	0.0	DF	0.0	DF	7.4	R	28.4	MR	11.8	R	0.0	DF



4	52015	RCH1199BGI I	24	R	10	R	14.5	R	30	MR	13.3	R	0.0	DF	0.0	DF	9.4	R	9.5	R	11.2	R	0.0	DF
14	52016	G.Cot.Hy-22 BG-II	19.5	R	10.5	R	22.5	R	31	MR	6.7	R	0.0	DF	0.0	DF	29.4	MR	8.2	R	12.5	R	0.0	DF
22	52017	GSBHH 225 BGII	23.5	R	8.5	R	34.5	MR	18	R	20.0	R	0.0	DF	0.0	DF	6.7	R	10.1	R	8.3	R	0.0	DF
5	52018	VSCH - 522 BG II	20	R	5	R	29	MR	27	MR	33.3	MR	0.0	DF	0.0	DF	16.1	R	10.7	R	8.8	R	0.0	DF
15	52019	C 9341 BGII	19.5	R	5	R	28	MR	17	R	6.7	R	0.0	DF	0.0	DF	15.7	R	7.8	R	26.1	MR	0.0	DF
23	52020	KCH9266 BGII	14.5	R	7	R	20	R	24	R	26.7	MR	0.0	DF	0.0	DF	17.6	R	29.7	MR	8.8	R	0.0	DF
6	52021	ECH 999 BG II	19	R	7.5	R	20	R	27.5	MR	26.7	MR	0.0	DF	0.0	DF	28.8	MR	25.5	MR	9.8	R	0.0	DF
16	52022	KCH9265 BGII	21	R	7.5	R	26.5	MR	30	MR	33.3	MR	0.0	DF	0.0	DF	20.6	MR	11.6	R	23.9	R	0.0	DF
24	52023	RAHH 1003 BGII	17	R	6.5	R	21.5	R	24.5	R	20.0	R	0.0	DF	0.0	DF	14.1	R	9.1	R	7.4	R	0.0	DF
7	52024	NBCH-6737 BG II	14	R	7	R	17.5	R	15	R	26.7	MR	0.0	DF	0.0	DF	17.1	R	8.2	R	10.6	R	0.0	DF
17	52025	TBG 23/22 BG II	24.5	R	6.5	R	28	MR	29	MR	13.3	R	0.0	DF	0.0	DF	17.7	R	13.1	R	25.2	MR	0.0	DF
27	52026	NCS 2025 Bt2	26.5	MR	8	R	28	MR	26	MR	33.3	MR	0.0	DF	0.0	DF	14.9	R	13.8	R	6.7	R	0.0	DF
9	52027	PRCH 2799 Bt2 (ZC1)	17.5	R	7.5	R	23.5	R	23.5	R	20.0	R	0.0	DF	0.0	DF	28.2	MR	11.0	R	12.1	R	0.0	DF
8	52028	PRCH 7557 Bt2	20.5	R	6.5	R	17.5	R	32	MR	20.0	R	0.0	DF	0.0	DF	13.0	R	14.6	R	4.9	R	0.0	DF



Table 1(e)): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (HxH) Unprotected condition at Eldorado Agritech Ltd. Jalna

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): UnProtected conditions					
			Eldorado Agritech Ltd. Jalna					
			ALB		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR
10	52001	US 722 BGII	15.0	R	24.0	R	0.0	DF
18	52002	PCH 2494 Bt2	17.5	R	15.0	R	0.0	DF
26	52003	GJBHH-2204 BG-II	8.5	R	10.5	R	0.0	DF
1	52004	NBC 2020 BG II (ZC2)	20.0	R	19.5	R	3.5	R
11	52005	TBG 23/20 BG II	17.0	R	15.5	R	0.0	DF
19	52006	VPCH-456 BG II	16.0	R	12.5	R	0.0	DF
25	52007	DC5107 BGII	10.0	R	11.0	R	2.5	R
2	52008	US 723 BGII	18.0	R	19.5	R	1.0	R
12	52009	GSBHH 230 BGII	10.5	R	11.0	R	0.0	DF
20	52010	KCH9264 BGII	16.5	R	15.0	R	0.0	DF
28	52011	RCH1196BGII	23.5	R	21.0	R	4.0	R
3	52012	BIOSEED 6004 BGII	30.0	MR	30.5	MR	10.0	R
13	52013	RAHH 1001 BGII	29.0	MR	28.0	MR	0.0	DF
21	52014	Core 106 BG II	9.0	R	14.4	R	0.0	DF
4	52015	RCH1199BGII	9.0	R	13.5	R	0.0	DF
14	52016	G.Cot.Hy-22 BG-II	8.0	R	15.5	R	1.5	R
22	52017	GSBHH 225 BGII	18.0	R	15.0	R	0.0	DF
5	52018	VSCH - 522 BG II	25.0	R	27.5	MR	0.0	DF
15	52019	C 9341 BGII	17.0	R	16.5	R	8.0	R
23	52020	KCH9266 BGII	29.0	MR	29.0	MR	8.5	R
6	52021	ECH 999 BG II	26.0	MR	23.0	R	7.5	R
16	52022	KCH9265 BGII	26.0	MR	29.0	MR	3.0	R
24	52023	RAHH 1003 BGII	14.0	R	16.5	R	6.5	R
7	52024	NBCH-6737 BG II	15.0	R	24.0	R	0.0	DF
17	52025	TBG 23/22 BG II	17.5	R	15.0	R	0.0	DF
27	52026	NCS 2025 Bt2	8.5	R	10.5	R	0.0	DF
9	52027	PRCH 2799 Bt2 (ZC1)	20.0	R	19.5	R	3.5	R
8	52028	PRCH 7557 Bt2	17.0	R	15.5	R	0.0	DF



Advanced Evaluation Trial of Intra-Hirsutum Bt Hybrids (I) - Irrigated

Constitution of Trial

The trial was constituted with 12 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

S. No.	Code-I	Code -II	Entries	Sponsored by
1	6	52041	DACH 72C72 BG II	Dharti seeds
2	10	52042	PRCH 2799 Bt2 (ZC1)	
3	14	52043	AGCH 1121 Bt II	AlpGiri seed sciences pvt ltd
4	3	52044	CCH 529	Caspian seeds
5	1	52045	GBCH 1718 BG II	Green Gold Seeds
6	5	52046	AGCH 1111 Bt II	AlpGiri seed sciences pvt ltd
7	8	52047	US 720 BG II	SeedWorks International
8	11	52048	PCH 9541	Prabhat
9	2	52049	NBC 2020 BG II (ZC2)	
10	12	52050	KCH 9252 BG II	Kaveri Seeds Co Ltd
11	4	52051	ECH 189 BGII	Eldorado Agritech Pvt Ltd
12	9	52052	KCH 9261 BG II	Kaveri Seeds Co Ltd
13	13	52053	KCH 9234 BG II	Kaveri Seeds Co Ltd
14	7	52054	NCS 9441	Nuziveedu

The trial was conducted in ten different locations viz., Junagadh, Talod, Rahuri, Khandwa, Bhawanipatna, Aurangabad (Kaveri Seed Company Ltd.), Gangapur (Seed Works International Pvt. Ltd.), Waluj (Green Gold), Dongargaon (Ankur Seeds), and Barwani (Nuziveedu Seeds).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with three replicatio



Data recorded:**Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	148.0	121.0	129.3	156.2	137.0	156.8	173.2	166.7	160.0	149.8
2	PRCH 2799 Bt2 (ZC1)	133.0	128.3	129.7	155.3	142.7	169.8	173.3	156.7	145.0	148.2
3	AGCH 1121 Bt II	152.0	133.0	128.3	149.1	156.3	168.7	196.7	165.0	181.0	158.9
4	CCH 529	131.0	105.0	138.0	140.2	145.3	159.6	173.3	146.7	147.0	142.9
5	GBCH 1718 BG II	146.0	154.0	125.0	153.9	147.7	169.6	180.0	155.0	163.0	154.9
6	AGCH 1111 Bt II	145.0	162.7	134.3	180.9	163.7	184.6	208.3	170.0	203.0	172.5
7	US 720 BG II	135.0	123.7	137.0	162.1	154.7	175.6	186.7	158.3	149.0	153.6
8	PCH 9541	135.0	120.3	119.7	152.3	149.3	166.2	181.7	156.7	149.0	147.8
9	NBC 2020 BG II (ZC2)	123.0	134.7	115.7	141.6	138.7	162.9	175.0	151.7	148.0	143.5
10	KCH 9252 BG II	150.0	171.3	135.7	167.7	159.3	173.1	201.7	161.7	188.0	167.6
11	ECH 189 BGII	144.0	125.3	137.3	141.3	156.7	174.2	191.7	168.3	179.0	157.5
12	KCH 9261 BG II	137.0	125.3	129.0	140.1	146.7	174.1	176.7	166.7	149.0	149.4
13	KCH 9234 BG II	145.0	160.7	137.3	165.3	159.0	184.1	200.0	170.0	188.0	167.7
14	NCS 9441	133.0	137.7	127.7	153.5	156.7	172.3	180.0	151.7	153.0	151.7
	CD @ 5%	16.7	13.3	8.8	12.5	13.4		5.6	20.5		
	CV%	7.1	5.9	4.0	5.6	5.3		17.6	7.6		



Table: Number of monopodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	1.4	1.8	1.7	0.4	2.2	2.6	2.0	2.1	2.0	4.0	2.0
2	PRCH 2799 Bt2 (ZC1)	1.2	1.9	1.8	0.8	1.7	2.1	3.0	2.4	2.0	3.0	2.0
3	AGCH 1121 Bt II	0.6	1.3	2.1	0.0	2.3	1.6	2.0	1.7	1.0	2.0	1.5
4	CCH 529	1.0	1.5	1.8	0.2	2.7	1.7	2.7	2.0	2.0	3.0	1.9
5	GBCH 1718 BG II	1.2	2.1	1.9	0.3	2.7	1.6	1.0	2.2	2.0	2.0	1.7
6	AGCH 1111 Bt II	1.4	1.2	1.9	0.7	3.0	2.0	2.7	2.0	1.0	2.0	1.8
7	US 720 BG II	1.0	1.4	1.9	0.0	2.2	1.9	2.0	2.3	1.3	2.0	1.6
8	PCH 9541	0.8	1.4	1.6	0.1	1.5	2.1	2.0	2.3	2.0	2.0	1.6
9	NBC 2020 BG II (ZC2)	1.0	1.3	1.6	0.2	2.8	1.9	1.7	2.0	2.0	3.0	1.8
10	KCH 9252 BG II	1.6	1.5	1.7	0.0	2.8	1.8	2.0	2.7	2.3	2.0	1.8
11	ECH 189 BGII	1.8	1.5	1.8	0.1	2.5	1.9	2.7	2.0	2.0	3.0	1.9
12	KCH 9261 BG II	1.0	1.8	1.7	0.5	2.2	2.1	3.0	2.3	2.7	3.0	2.0
13	KCH 9234 BG II	2.4	1.9	1.9	0.3	2.3	1.7	2.0	2.2	3.0	2.0	2.0
14	NCS 9441	1.2	2.9	1.8	0.5	2.7	1.9	2.7	2.0	2.0	3.0	2.1
	CD @ 5%	0.3	NS	0.4		0.7			16.1	0.6		
	CV%	16.5	43.5	14.2		18.5			0.8	19.6		



Table: Number of sympodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	21.5	21.3	16.7	24.3	19.0	19.2	29.0	16.9	20.0	19.0	20.7
2	PRCH 2799 Bt2 (ZC1)	18.3	20.7	17.7	23.9	17.3	21.3	26.3	20.9	21.0	20.0	20.7
3	AGCH 1121 Bt II	18.5	21.5	13.6	22.1	16.7	20.3	25.3	19.5	21.0	14.0	19.3
4	CCH 529	17.5	20.0	20.6	20.2	16.7	19.0	25.0	17.3	19.7	17.0	19.3
5	GBCH 1718 BG II	19.9	23.5	13.3	22.5	20.0	20.9	26.0	18.9	21.7	24.0	21.1
6	AGCH 1111 Bt II	20.4	21.5	15.9	24.9	18.3	21.0	26.0	18.7	23.7	24.0	21.4
7	US 720 BG II	20.1	20.7	19.4	25.1	20.0	21.2	29.0	19.1	20.0	19.0	21.4
8	PCH 9541	16.4	21.1	14.4	23.2	15.7	21.1	27.3	18.5	19.7	19.0	19.6
9	NBC 2020 BG II (ZC2)	16.9	22.7	18.3	22.2	17.0	20.7	28.0	18.5	23.7	20.0	20.8
10	KCH 9252 BG II	21.2	23.2	19.7	24.0	19.3	21.2	27.3	19.7	23.0	17.0	21.6
11	ECH 189 BGII	20.6	19.4	17.4	21.2	18.3	20.7	29.0	18.9	21.0	20.0	20.7
12	KCH 9261 BG II	20.3	22.1	18.9	23.2	17.7	22.6	27.7	19.3	22.3	16.0	21.0
13	KCH 9234 BG II	20.5	24.8	19.1	24.1	20.7	21.6	28.0	22.3	21.3	17.0	21.9
14	NCS 9441	18.2	24.1	14.5	20.8	19.3	20.9	28.7	18.2	20.0	19.0	20.4
	CD @ 5%	2.0	2.7	2.4	2.0	2.5			9.2	3.7		
	CV%	6.1	7.2	8.4	6.0	8.2			2.9	10.3		



Table: Boll weight (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	5.2	6.6	6.4	5.1	6.2	6.8	6.1	6.0	6.5	6.1
2	PRCH 2799 Bt2 (ZC1)	5.1	5.6	6.3	4.9	5.9	5.7	5.7	5.7	5.0	5.5
3	AGCH 1121 Bt II	4.5	5.4	5.7	4.7	4.9	4.9	4.7	4.8	5.5	5.0
4	CCH 529	5.0	6.1	7.0	5.5	5.5	5.9	5.9	5.7	6.9	5.9
5	GBCH 1718 BG II	5.1	6.2	5.6	5.2	6.3	6.5	5.6	5.3	5.5	5.7
6	AGCH 1111 Bt II	5.2	6.2	6.7	5.4	6.1	5.0	5.3	5.8	6.2	5.8
7	US 720 BG II	5.4	6.1	6.1	5.1	6.1	6.6	5.8	5.5	6.6	5.9
8	PCH 9541	5.6	6.9	6.6	5.5	6.2	6.2	6.4	6.2	6.5	6.2
9	NBC 2020 BG II (ZC2)	5.1	6.8	6.6	5.6	5.4	6.1	5.7	5.7	6.9	6.0
10	KCH 9252 BG II	5.0	6.0	6.3	5.6	5.3	5.3	5.1	5.5	5.0	5.5
11	ECH 189 BGII	5.1	6.7	6.5	5.3	5.8	6.4	5.7	6.2	6.6	6.0
12	KCH 9261 BG II	4.8	6.4	5.6	5.5	6.8	6.3	5.9	6.1	6.2	6.0
13	KCH 9234 BG II	5.2	5.7	7.0	5.6	5.3	5.4	5.4	5.6	5.8	5.7
14	NCS 9441	5.5	7.0	6.5	5.5	6.0	6.6	6.4	6.6	6.2	6.3
	CD @ 5%	0.6	1.0	0.1	0.6	0.9		3.9	0.7		
	CV%	6.4	9.1	1.2	7.6	8.9		0.3	7.2		



Table: Number of bolls / plant in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	32.9	29.8	60.6	26.3	29.3	55.0	55.3	38.3	53.0	52.3	43.3
2	PRCH 2799 Bt2 (ZC1)	32.3	34.3	55.5	30.1	29.7	66.0	55.7	42.2	57.3	53.7	45.7
3	AGCH 1121 Bt II	30.2	33.2	25.3	29.0	25.7	61.9	54.7	36.2	53.7	53.7	40.4
4	CCH 529	27.8	31.9	63.7	32.6	30.0	54.3	48.7	34.4	50.0	54.3	42.8
5	GBCH 1718 BG II	27.9	24.7	41.5	32.9	36.0	66.3	43.7	38.6	49.7	55.7	41.7
6	AGCH 1111 Bt II	32.0	24.3	41.1	24.9	28.3	59.2	28.3	35.7	48.7	52.0	37.5
7	US 720 BG II	26.3	28.9	60.3	28.9	31.0	54.6	42.7	38.9	42.7	53.3	40.8
8	PCH 9541	21.1	26.8	38.5	36.1	34.0	60.7	49.0	36.7	46.0	56.7	40.6
9	NBC 2020 BG II (ZC2)	24.4	24.9	45.4	30.2	32.0	54.6	47.0	38.9	43.0	54.0	39.4
10	KCH 9252 BG II	37.7	34.5	59.3	44.0	34.7	66.9	53.7	40.1	61.0	57.0	48.9
11	ECH 189 BGII	28.0	24.3	45.4	32.3	33.3	65.4	53.3	38.7	45.0	64.0	43.0
12	KCH 9261 BG II	25.6	29.8	55.2	36.8	37.0	68.3	54.7	44.1	58.0	62.0	47.2
13	KCH 9234 BG II	35.3	46.5	60.2	43.2	30.3	85.1	53.3	44.8	59.3	58.7	51.7
14	NCS 9441	25.4	27.5	49.6	41.0	34.3	72.6	42.0	43.8	42.7	64.0	44.3
	CD @ 5%	6.3	7.7	6.2	5.9	4.2			7.3	8.3		
	CV%	12.9	15.3	7.5	12.4	7.8			4.8	9.8		



Table: Number of bolls / sq.m. in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	68.5	55.1	83.6	83.2	56.3	165.3	53.2	73.6	45.0	76.0
2	PRCH 2799 Bt2 (ZC1)	67.6	63.5	76.5	96.1	59.0	175.3	58.6	79.6	45.7	80.2
3	AGCH 1121 Bt II	63.7	61.4	35.0	92.2	50.0	156.0	50.2	74.5	47.3	70.0
4	CCH 529	58.3	59.0	87.9	107.0	59.3	157.0	47.8	69.4	46.7	76.9
5	GBCH 1718 BG II	58.5	45.8	57.3	105.3	67.7	172.7	53.6	69.0	49.1	75.4
6	AGCH 1111 Bt II	66.9	45.0	56.7	78.4	55.3	175.0	49.5	67.6	45.1	71.1
7	US 720 BG II	55.3	53.6	83.3	90.9	60.3	169.3	54.1	59.3	47.0	74.8
8	PCH 9541	45.1	49.6	53.1	116.4	66.7	158.7	50.9	63.9	49.1	72.6
9	NBC 2020 BG II (ZC2)	51.7	46.1	62.7	96.4	62.7	145.3	54.1	59.7	47.6	69.6
10	KCH 9252 BG II	77.9	63.9	81.8	143.1	66.3	162.7	55.7	84.7	50.2	87.4
11	ECH 189 BGII	58.0	45.0	62.7	103.5	65.7	166.3	53.7	62.5	56.4	74.9
12	KCH 9261 BG II	53.4	55.2	76.2	118.7	71.7	165.0	61.3	80.6	54.2	81.8
13	KCH 9234 BG II	72.9	86.1	83.1	140.3	59.0	156.3	62.2	82.4	51.3	88.2
14	NCS 9441	52.9	51.0	68.4	132.9	64.0	161.7	60.9	59.3	56.4	78.6
	CD @ 5%	12.5	14.3	8.6	17.8	8.4		7.3	11.6		
	CV%	12.2	15.3	7.5	11.6	8.1		6.7	9.8		



Table: Lint Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	5.9	6.2	7.1	5.7	4.6	5.4	5.2	4.6	4.5	5.5
2	PRCH 2799 Bt2 (ZC1)	5.7	6.1	7.7	6.1	6.9	5.3	6.9	5.9	4.7	6.1
3	AGCH 1121 Bt II	5.5	5.9	5.8	5.6	4.7	4.6	4.4	4.6	4.4	5.1
4	CCH 529	5.3	5.4	6.0	5.7	5.7	4.5	5.5	4.7	4.2	5.2
5	GBCH 1718 BG II	5.2	5.7	5.6	6.2	5.0	5.3	5.5	5.3	3.8	5.3
6	AGCH 1111 Bt II	5.4	6.2	6.8	6.1	5.6	5.2	5.3	4.8	5.8	5.7
7	US 720 BG II	5.3	5.2	6.4	6.0	4.6	5.7	5.6	4.8	4.3	5.3
8	PCH 9541	5.8	5.7	7.1	6.7	5.7	5.2	6.1	5.2	4.8	5.8
9	NBC 2020 BG II (ZC2)	5.8	5.5	6.4	6.3	5.5	5.3	5.6	4.3	4.1	5.4
10	KCH 9252 BG II	5.3	5.3	7.7	5.4	5.5	5.3	4.8	5.0	3.2	5.3
11	ECH 189 BGII	5.6	5.8	7.1	5.8	5.8	5.6	5.3	5.8	6.4	5.9
12	KCH 9261 BG II	4.5	5.4	7.4	5.6	5.2	5.9	6.2	5.4	6.4	5.8
13	KCH 9234 BG II	5.8	4.9	7.3	5.3	5.4	4.8	5.1	5.1	4.5	5.4
14	NCS 9441	5.8	6.1	7.5	5.8	6.6	3.7	6.4	6.5	7.3	6.2
	CD @ 5%	0.7	0.7			0.5		8.8	0.5		
	CV%	7.9	7.8			5.0		0.8	5.6		



Table: Seed Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	10.8	12.0	13.1	10.7	8.5	10.7	13.1	10.0	8.3	9.0	10.6
2	PRCH 2799 Bt2 (ZC1)	10.2	10.7	12.6	10.1	10.6	9.7	12.0	10.0	9.0	8.0	10.3
3	AGCH 1121 Bt II	11.2	11.0	11.2	9.8	8.3	9.3	11.0	9.0	8.3	9.0	9.8
4	CCH 529	11.0	12.0	12.9	10.5	11.5	9.3	12.0	11.0	9.0	9.0	10.8
5	GBCH 1718 BG II	12.0	12.3	12.3	11.6	9.8	9.7	13.2	10.0	9.7	8.0	10.9
6	AGCH 1111 Bt II	10.0	12.3	12.6	11.0	10.2	9.7	11.9	10.0	8.3	11.0	10.7
7	US 720 BG II	11.8	11.3	13.7	10.7	8.8	10.3	12.9	10.0	8.7	9.0	10.7
8	PCH 9541	11.7	12.0	13.8	12.0	10.3	9.7	13.5	10.0	9.0	9.0	11.1
9	NBC 2020 BG II (ZC2)	11.7	12.0	13.4	11.8	10.4	9.7	12.6	11.0	8.3	9.0	11.0
10	KCH 9252 BG II	9.8	10.3	13.4	10.3	10.8	9.7	11.7	9.0	8.7	7.0	10.1
11	ECH 189 BGII	12.0	11.7	14.4	10.8	10.1	10.3	13.3	10.0	10.7	13.0	11.6
12	KCH 9261 BG II	10.0	10.0	12.4	9.5	8.5	9.3	11.6	10.0	8.3	11.0	10.1
13	KCH 9234 BG II	10.7	11.0	13.0	9.5	10.3	10.0	11.0	9.0	8.7	10.0	10.3
14	NCS 9441	11.8	11.7	12.8	10.6	12.0	10.0	13.1	12.0	10.7	13.0	11.8
	CD @ 5%	1.3	1.3			0.8			6.0	0.8		
	CV%	7.1	6.9			4.6			1.0	5.5		



Table: Ginning outturn (%) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	35.2	34.1	35.0	34.9	35.3	35.0	34.7	34.8	35.5	33.3	34.8
2	PRCH 2799 Bt2 (ZC1)	36.0	36.5	37.9	37.8	39.3	33.5	35.1	38.0	39.6	36.9	37.1
3	AGCH 1121 Bt II	33.2	34.9	34.2	36.5	36.2	35.4	34.3	32.2	35.5	32.9	34.5
4	CCH 529	32.3	31.2	31.6	37.2	33.2	32.6	31.3	33.4	34.3	31.8	32.9
5	GBCH 1718 BG II	30.2	31.5	31.5	37.1	33.9	35.8	31.7	34.7	35.6	32.2	33.4
6	AGCH 1111 Bt II	35.0	33.5	35.2	35.8	35.3	34.7	32.3	34.8	36.6	34.6	34.8
7	US 720 BG II	31.0	31.5	32.0	36.1	34.4	34.4	32.3	36.5	35.8	32.2	33.6
8	PCH 9541	33.0	32.1	33.8	36.8	35.6	34.6	32.4	37.2	36.7	34.6	34.7
9	NBC 2020 BG II (ZC2)	33.2	31.3	32.2	34.8	34.4	33.2	30.9	33.2	33.9	31.3	32.8
10	KCH 9252 BG II	35.0	33.9	36.6	37.6	33.7	35.5	33.1	34.6	36.5	31.2	34.8
11	ECH 189 BGII	32.2	33.3	32.9	36.6	36.4	34.8	33.7	35.2	35.1	32.9	34.3
12	KCH 9261 BG II	31.0	34.9	37.5	37.7	37.9	35.2	35.7	37.2	39.2	36.9	36.3
13	KCH 9234 BG II	35.2	31.0	35.9	37.2	34.6	35.2	33.7	36.1	37.0	30.9	34.7
14	NCS 9441	33.0	34.2	36.9	37.6	35.3	36.2	34.5	36.1	37.9	36.1	35.8
	CD @ 5%	1.5	1.8			1.5			5.0	0.8		
	CV%	2.7	3.2			2.5			3.0	1.3		



Table: Upper Half Mean Length (mm) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	26.7	29.1	27.7	26.3	26.5	26.9	25.9	24.9	26.3	26.7
2	PRCH 2799 Bt2 (ZC1)	28.8	30.8	28.5	27.2	29.9	28.4	27.9	27.6	28.2	28.6
3	AGCH 1121 Bt II	29.3	29.6	27.7	27.8	27.4	28.4	29.1	26.4	27.8	28.2
4	CCH 529	29.7	31.6	30.2	27.9	29.4	29.7	30.5	28.7	28.9	29.6
5	GBCH 1718 BG II	31.1	33.7	29.1	30.5	31.3	31.4	29.5	28.1	31.0	30.6
6	AGCH 1111 Bt II	28.4	28.9	28.4	27.7	29.1	28.1	28.3	27.3	28.5	28.3
7	US 720 BG II	29.9	29.7	29.6	28.3	29.6	29.1	27.7	27.3	28.5	28.9
8	PCH 9541	31.6	32.5	30.8	30.1	33.7	31.4	31.1	28.4	32.7	31.4
9	NBC 2020 BG II (ZC2)	30.2	29.6	30.1	29.4	30.0	29.4	30.0	29.1	30.4	29.8
10	KCH 9252 BG II	27.3	27.3	28.5	26.9	28.0	26.8	27.1	25.8	26.3	27.1
11	ECH 189 BGII	29.0	30.1	28.7	28.0	30.0	29.1	28.8	27.9	29.5	29.0
12	KCH 9261 BG II	29.7	30.7	29.8	29.0	32.2	29.6	28.4	27.7	28.2	29.5
13	KCH 9234 BG II	27.1	28.2	28.2	26.4	27.2	27.7	27.7	26.3	25.1	27.1
14	NCS 9441	29.9	30.7	30.7	29.2	31.7	29.5	29.1	29.8	29.9	30.1



Table: Uniformity index under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	83.0	84.0	84.0	83.0	85.0	81.0	83.0	82.0	83.1
2	PRCH 2799 Bt2 (ZC1)	84.0	87.0	85.0	84.0	87.0	83.0	82.0	83.0	84.4
3	AGCH 1121 Bt II	84.0	84.0	85.0	85.0	85.0	83.0	83.0	85.0	84.3
4	CCH 529	85.0	87.0	86.0	83.0	86.0	84.0	84.0	85.0	85.0
5	GBCH 1718 BG II	84.0	86.0	84.0	84.0	84.0	83.0	84.0	83.0	84.0
6	AGCH 1111 Bt II	84.0	84.0	85.0	84.0	86.0	83.0	83.0	85.0	84.3
7	US 720 BG II	86.0	85.0	86.0	84.0	85.0	81.0	81.0	84.0	84.0
8	PCH 9541	84.0	84.0	85.0	82.0	87.0	83.0	80.0	85.0	83.8
9	NBC 2020 BG II (ZC2)	85.0	87.0	86.0	84.0	86.0	84.0	85.0	86.0	85.4
10	KCH 9252 BG II	84.0	85.0	86.0	83.0	84.0	83.0	83.0	86.0	84.3
11	ECH 189 BGII	83.0	85.0	85.0	83.0	84.0	86.0	82.0	86.0	84.3
12	KCH 9261 BG II	83.0	84.0	85.0	84.0	87.0	83.0	81.0	84.0	83.9
13	KCH 9234 BG II	83.0	85.0	85.0	84.0	84.0	84.0	82.0	82.0	83.6
14	NCS 9441	83.0	85.0	86.0	83.0	87.0	85.0	83.0	85.0	84.6



Table: Micronaire under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	5.0	5.5	4.8	4.4	4.8	5.0	4.9	4.5	3.5	4.7
2	PRCH 2799 Bt2 (ZC1)	5.0	5.7	4.3	4.5	4.9	4.9	4.3	4.5	4.0	4.7
3	AGCH 1121 Bt II	4.1	5.0	3.6	3.7	4.1	4.6	4.3	4.1	3.3	4.1
4	CCH 529	4.4	4.9	3.7	3.5	4.6	4.5	4.2	3.9	3.1	4.1
5	GBCH 1718 BG II	4.8	4.8	3.6	4.0	4.5	4.7	4.3	4.3	3.7	4.3
6	AGCH 1111 Bt II	4.3	5.8	4.3	4.4	4.9	5.0	4.7	4.4	4.4	4.7
7	US 720 BG II	5.4	5.6	4.2	4.3	5.4	5.4	4.4	4.1	4.4	4.8
8	PCH 9541	4.9	4.9	4.0	4.3	4.8	4.9	4.3	4.2	3.7	4.4
9	NBC 2020 BG II (ZC2)	4.5	5.2	4.0	4.2	4.2	4.6	4.1	3.8	3.7	4.3
10	KCH 9252 BG II	5.1	5.4	4.6	4.0	4.9	5.1	4.6	4.4	4.4	4.7
11	ECH 189 BGII	4.6	5.2	3.8	4.1	4.3	4.5	4.1	4.0	3.8	4.3
12	KCH 9261 BG II	5.0	5.3	4.0	3.8	4.5	4.7	4.1	4.1	3.7	4.4
13	KCH 9234 BG II	5.0	5.3	4.7	3.9	4.6	5.1	4.5	4.4	4.3	4.6
14	NCS 9441	4.7	5.4	4.5	4.0	4.6	5.0	4.6	4.2	4.0	4.6



Table: Tenacity under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	28.2	29.3	29.0	27.3	28.1	27.3	25.1	25.5	28.4	27.6
2	PRCH 2799 Bt2 (ZC1)	29.9	32.5	29.2	27.5	32.1	28.3	27.4	27.4	27.1	29.0
3	AGCH 1121 Bt II	30.8	30.8	28.6	29.6	31.3	29.6	29.4	27.0	29.2	29.6
4	CCH 529	31.2	33.8	30.6	30.7	30.6	30.3	29.6	29.1	28.5	30.5
5	GBCH 1718 BG II	30.2	34.0	29.8	30.6	28.1	30.1	27.0	27.2	29.2	29.6
6	AGCH 1111 Bt II	30.3	31.1	29.4	28.5	31.2	29.7	28.5	29.5	30.6	29.9
7	US 720 BG II	29.8	32.1	30.3	31.1	29.1	30.0	26.9	28.1	30.8	29.8
8	PCH 9541	30.6	29.4	31.3	31.2	32.5	28.8	28.0	27.4	30.2	29.9
9	NBC 2020 BG II (ZC2)	32.9	32.0	32.7	31.1	31.0	31.4	29.9	29.7	33.6	31.6
10	KCH 9252 BG II	29.3	29.1	29.0	29.4	29.8	30.3	27.6	27.7	28.1	28.9
11	ECH 189 BGII	30.6	31.8	31.4	30.8	32.7	30.1	30.3	29.2	31.6	30.9
12	KCH 9261 BG II	30.0	30.5	31.0	30.0	33.3	29.8	30.2	28.3	30.5	30.4
13	KCH 9234 BG II	28.7	30.9	29.2	27.7	29.1	31.7	27.5	28.0	26.7	28.8
14	NCS 9441	31.2	30.6	29.9	29.8	30.9	29.6	27.7	28.2	32.5	30.0



Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	17.49	21.87	12.09	14.64	19.75	29.71	19.54	21.75	38.61	15.79	21.12
2	PRCH 2799 Bt2 (ZC1)	19.16	20.05	11.66	16.17	15.28	24.60	12.88	17.55	27.04	16.05	18.04
3	AGCH 1121 Bt II	16.85	19.84	6.26	13.02	14.66	23.48	18.63	19.58	25.15	15.90	17.34
4	CCH 529	14.79	22.15	12.17	20.67	19.60	22.76	16.66	18.91	25.36	14.95	18.80
5	GBCH 1718 BG II	16.97	14.48	9.44	20.46	22.53	34.48	14.81	17.13	32.01	8.72	19.10
6	AGCH 1111 Bt II	17.36	13.81	10.42	10.82	14.51	11.92	5.96	10.50	22.56	6.01	12.39
7	US 720 BG II	12.99	19.83	13.05	14.37	21.30	27.79	14.98	21.44	31.41	11.16	18.83
8	PCH 9541	10.16	20.09	10.19	20.07	22.07	33.29	11.93	20.67	26.34	13.90	18.87
9	NBC 2020 BG II (ZC2)	12.86	18.70	11.69	15.58	21.30	25.29	16.26	18.66	24.37	12.45	17.72
10	KCH 9252 BG II	23.92	22.25	13.45	21.46	21.91	37.89	16.54	20.77	37.19	11.50	22.69
11	ECH 189 BGII	15.82	18.91	9.56	19.51	22.84	26.00	16.42	19.32	28.40	11.20	18.80
12	KCH 9261 BG II	11.19	18.88	10.94	19.41	25.15	33.72	14.62	20.30	37.85	19.14	21.12
13	KCH 9234 BG II	22.89	23.23	10.57	21.64	19.75	34.45	18.17	21.68	37.68	10.90	22.10
14	NCS 9441	15.18	22.62	11.62	20.21	21.76	30.25	15.63	18.59	31.04	13.19	20.01
	CD @ 5%	4.24	4.30	2.72		3.93			5.55	3.78		
	CV%	15.55	12.96	14.84		11.60			1.78	7.42		



Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean
1	DACH 72C72 BG II	12.73	5.83	18.42	4.13	4.63	9.65	22.36	7.18	2.18	6.33	9.34
2	PRCH 2799 Bt2 (ZC1)	9.90	5.77	17.87	4.04	6.79	8.41	20.32	6.78	1.23	7.00	8.81
3	AGCH 1121 Bt II	6.69	4.25	10.41	4.34	2.16	5.90	20.83	5.74	0.65	7.79	6.88
4	CCH 529	9.39	5.18	22.72	5.17	4.63	8.25	18.61	5.48	1.09	9.40	8.99
5	GBCH 1718 BG II	7.59	8.08	9.30	5.11	8.49	11.33	25.08	7.28	2.88	8.30	9.34
6	AGCH 1111 Bt II	11.83	7.51	12.67	4.21	5.56	11.90	13.87	9.08	1.84	11.59	9.01
7	US 720 BG II	11.57	4.91	17.77	5.05	4.78	9.52	20.37	7.44	2.78	15.33	9.95
8	PCH 9541	9.65	7.35	10.68	5.33	7.41	6.92	21.79	6.18	1.31	14.43	9.11
9	NBC 2020 BG II (ZC2)	8.49	5.21	13.85	5.47	4.01	7.31	19.44	5.83	1.84	12.22	8.37
10	KCH 9252 BG II	9.26	7.57	17.52	5.70	4.48	10.54	23.26	7.34	1.78	11.76	9.92
11	ECH 189 BGII	8.75	2.84	15.15	5.83	4.32	9.41	24.70	6.05	1.35	10.33	8.87
12	KCH 9261 BG II	9.77	9.24	15.20	6.13	8.80	9.27	24.79	6.53	2.56	9.56	10.19
13	KCH 9234 BG II	9.90	12.38	22.39	5.41	4.48	10.29	23.70	7.55	2.25	14.56	11.29
14	NCS 9441	8.87	4.67	15.59	6.74	5.56	13.02	23.96	6.08	2.41	15.43	10.23
	CD @ 5%	2.98	1.42	3.63		2.06			10.03	0.81		
	CV%	18.50	13.03	14.03		22.55			1.14	25.75		



Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	B'Patna	Waluj (Green Gold)	Dongargaon (Ankur)	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Barwani (Nuziveedu)	Mean	Rank	% Inc over best check
1	DACH 72C72 BG II	30.22	27.70	30.32	18.77	24.38	39.36	41.96	28.93	40.78	22.12	30.45	4	13.4
2	PRCH 2799 Bt2 (ZC1)	29.07	25.82	29.53	20.22	22.07	33.01	33.21	24.33	28.27	23.05	26.86	11	0.0
3	AGCH 1121 Bt II	23.54	24.08	16.67	17.36	16.82	29.37	39.47	25.32	25.80	23.69	24.21	13	-9.9
4	CCH 529	24.18	27.34	34.89	25.83	24.23	31.01	35.27	24.39	26.45	24.35	27.79	9	3.5
5	GBCH 1718 BG II	24.56	22.56	18.74	25.57	31.02	45.81	39.90	24.41	34.89	17.02	28.45	7	5.9
6	AGCH 1111 Bt II	29.20	21.32	23.09	15.03	20.06	23.82	19.83	19.58	24.40	17.59	21.39	14	-20.4
7	US 720 BG II	24.56	24.74	30.81	19.42	26.08	37.31	35.35	28.88	34.18	26.49	28.78	6	7.2
8	PCH 9541	19.81	27.45	20.89	25.40	29.48	40.21	33.73	26.85	27.64	28.33	27.98	8	4.2
9	NBC 2020 BG II (ZC2)	21.35	23.91	25.54	21.05	25.31	32.60	35.71	24.49	26.21	24.67	26.08	12	-2.9
10	KCH 9252 BG II	33.18	29.82	30.98	27.16	26.39	48.43	39.80	28.10	38.97	23.27	32.61	2	21.4
11	ECH 189 BGII	24.56	21.75	24.72	25.34	27.16	35.41	41.12	25.36	29.75	21.53	27.67	10	3.0
12	KCH 9261 BG II	20.96	28.13	26.15	25.54	33.95	42.99	39.41	26.83	40.40	28.70	31.31	3	16.6
13	KCH 9234 BG II	32.80	35.61	32.99	27.05	24.23	44.75	41.88	29.23	39.92	25.47	33.39	1	24.3
14	NCS 9441	24.05	27.29	27.20	26.94	27.31	43.27	39.58	24.67	33.45	28.62	30.24	5	12.6
	CD @ 5%	3.52	4.83	4.03	4.02	4.12			5.28	3.59				
	CV%	8.11	10.97	9.14	12.21	9.58			2.29	6.63				



Evaluation under Protected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	9.23	-	1.91	14.30	16.55	18.13	12.03	AETL
PRCH 2799 Bt2 (ZC1)	11.33	-	2.16	16.37	21.30	9.98	12.23	AETL
AGCH 1121 Bt II	10.37	-	2.29	15.27	25.20	8.13	12.25	AETL
CCH 529	8.97	-	1.84	13.70	12.30	6.13	8.59	BETL
GBCH 1718 BG II	7.93	-	2.16	15.27	21.30	3.16	9.96	BETL
AGCH 1111 Bt II	7.10	-	2.64	14.23	12.50	16.18	10.53	AETL
US 720 BG II	8.37	-	2.82	15.50	6.58	6.64	7.98	BETL
PCH 9541	8.63	-	2.27	15.17	23.60	15.58	13.05	AETL
NBC 2020 BG II (ZC2)	9.87	-	2.13	13.30	25.30	10.08	12.14	AETL
KCH 9252 BG II	10.83	-	2.09	12.80	15.20	14.18	11.02	AETL
ECH 189 BGII	7.63	-	2.13	14.53	14.30	4.27	8.57	BETL
KCH 9261 BG II	6.97	-	2.13	15.80	12.30	8.76	9.19	BETL
KCH 9234 BG II	6.63	-	2.00	13.10	12.30	23.93	11.59	AETL
NCS 9441	9.67	-	1.78	14.37	15.20	15.73	11.35	AETL

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Table: Advanced H X H trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	6.87	-	1.89	1.95	6.26	1.00	3.59	BETL
PRCH 2799 Bt2 (ZC1)	7.80	-	1.76	1.90	8.50	1.04	4.20	BETL
AGCH 1121 Bt II	5.77	-	2.00	1.83	9.36	1.42	4.08	BETL
CCH 529	8.13	-	1.87	2.07	5.63	1.16	3.77	BETL
GBCH 1718 BG II	9.47	-	2.00	2.15	5.60	1.20	4.08	BETL
AGCH 1111 Bt II	7.43	-	1.93	2.17	4.65	0.98	3.43	BETL
US 720 BG II	9.13	-	2.00	1.93	9.80	0.64	4.70	BETL
PCH 9541	8.70	-	2.09	2.18	8.63	0.91	4.50	BETL
NBC 2020 BG II (ZC2)	7.17	-	1.98	1.97	10.30	1.22	4.53	BETL
KCH 9252 BG II	6.17	-	1.78	2.20	13.20	0.51	4.77	BETL
ECH 189 BGII	9.67	-	1.80	1.97	12.30	0.47	5.24	BETL
KCH 9261 BG II	8.73	-	1.87	2.22	6.56	0.62	4.00	BETL
KCH 9234 BG II	6.57	-	1.96	2.07	9.36	0.33	4.06	BETL
NCS 9441	8.40	-	1.89	1.83	7.60	0.60	4.06	BETL

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Table: Advanced H X H trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	II	-	I	I	-	I	I	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	I	I	
AGCH 1121 Bt II	II	-	I	II	-	I	II	
CCH 529	II	-	I	II	-	I	II	
GBCH 1718 BG II	II	-	I	II	-	I	II	
AGCH 1111 Bt II	II	-	I	I	-	I	I	
US 720 BG II	II	-	I	I	-	I	I	
PCH 9541	II	-	I	I	-	I	I	
NBC 2020 BG II (ZC2)	II	-	I	II	-	I	II	
KCH 9252 BG II	II	-	I	I	-	I	I	
ECH 189 BGII	II	-	I	II	-	I	II	
KCH 9261 BG II	II	-	I	I	-	I	I	
KCH 9234 BG II	II	-	I	I	-	I	I	
NCS 9441	II	-	I	I	-	I	I	

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Table: Advanced H X H trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	11.40	-	2.53	15.60	-	0.00	7.38	BETL
PRCH 2799 Bt2 (ZC1)	12.60	-	2.84	13.87	-	0.16	7.37	BETL
AGCH 1121 Bt II	10.83	-	2.53	16.03	-	0.04	7.36	BETL
CCH 529	12.00	-	2.62	16.33	-	0.02	7.74	BETL
GBCH 1718 BG II	13.07	-	2.62	13.67	-	0.00	7.34	BETL
AGCH 1111 Bt II	9.10	-	2.67	14.67	-	0.00	6.61	BETL
US 720 BG II	10.13	-	2.56	15.97	-	0.00	7.16	BETL
PCH 9541	10.47	-	2.89	15.80	-	0.02	7.29	BETL
NBC 2020 BG II (ZC2)	8.77	-	2.64	14.97	-	0.00	6.59	BETL
KCH 9252 BG II	9.83	-	2.56	16.07	-	0.00	7.11	BETL
ECH 189 BGII	9.43	-	2.60	15.37	-	0.00	6.85	BETL
KCH 9261 BG II	7.90	-	2.80	16.00	-	0.04	6.69	BETL
KCH 9234 BG II	8.43	-	2.58	15.73	-	0.02	6.69	BETL
NCS 9441	8.23	-	2.40	12.87	-	0.00	5.88	BETL

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Table: Advanced H X H trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	8.33	-	0.56	1.60	15.60	0.42	5.30	BETL
PRCH 2799 Bt2 (ZC1)	7.67	-	0.67	1.43	16.35	0.27	5.28	BETL
AGCH 1121 Bt II	7.93	-	0.56	1.37	15.60	0.40	5.17	BETL
CCH 529	7.00	-	0.58	1.53	21.30	0.53	6.19	BETL
GBCH 1718 BG II	8.93	-	0.69	1.70	22.30	0.49	6.82	BETL
AGCH 1111 Bt II	5.23	-	0.69	1.67	12.32	0.44	4.07	BETL
US 720 BG II	5.57	-	0.71	1.67	21.36	0.60	5.98	BETL
PCH 9541	6.07	-	0.71	1.57	12.32	0.89	4.31	BETL
NBC 2020 BG II (ZC2)	6.60	-	0.53	1.30	24.32	1.33	6.82	BETL
KCH 9252 BG II	5.87	-	0.56	1.47	13.32	0.44	4.33	BETL
ECH 189 BGII	7.27	-	0.60	1.40	15.30	0.16	4.94	BETL
KCH 9261 BG II	6.80	-	0.56	1.63	18.66	0.53	5.64	BETL
KCH 9234 BG II	8.40	-	0.69	1.80	15.30	0.49	5.34	BETL
NCS 9441	8.73	-	0.67	1.60	13.25	0.53	4.96	BETL

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Table: Advanced H X H trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	1.77	-	0.58	0.59	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	1.57	-	0.29	0.46	
AGCH 1121 Bt II	0.00	-	0.00	1.70	-	0.53	0.56	
CCH 529	0.00	-	0.00	1.50	-	0.62	0.53	
GBCH 1718 BG II	0.00	-	0.00	1.63	-	0.42	0.51	
AGCH 1111 Bt II	0.00	-	0.00	1.80	-	0.84	0.66	
US 720 BG II	0.00	-	0.00	1.57	-	0.73	0.58	
PCH 9541	0.00	-	0.00	1.93	-	0.78	0.68	
NBC 2020 BG II (ZC2)	0.00	-	0.00	1.50	-	0.69	0.55	
KCH 9252 BG II	0.00	-	0.00	1.97	-	1.07	0.76	
ECH 189 BGII	0.00	-	0.00	2.07	-	0.31	0.59	
KCH 9261 BG II	0.00	-	0.00	1.97	-	0.60	0.64	
KCH 9234 BG II	0.00	-	0.00	2.03	-	0.38	0.60	
NCS 9441	0.00	-	0.00	1.87	-	0.47	0.58	

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Table: Advanced H X H trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./5 plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	4.70	-	0.00	2.50	18.80	0.00	5.20	AETL
PRCH 2799 Bt2 (ZC1)	4.30	-	0.07	2.33	15.50	0.00	4.44	AETL
AGCH 1121 Bt II	4.90	-	0.02	2.50	16.80	0.00	4.84	AETL
CCH 529	3.10	-	0.09	2.33	14.65	0.00	4.03	AETL
GBCH 1718 BG II	2.30	-	0.11	3.17	12.69	0.22	3.70	AETL
AGCH 1111 Bt II	3.30	-	0.00	3.17	14.56	0.00	4.21	AETL
US 720 BG II	2.10	-	0.09	3.00	10.20	0.00	3.08	AETL
PCH 9541	1.90	-	0.04	3.33	11.20	0.00	3.30	AETL
NBC 2020 BG II (ZC2)	3.60	-	0.07	3.00	11.80	0.00	3.69	AETL
KCH 9252 BG II	3.90	-	0.16	2.50	14.95	0.00	4.30	AETL
ECH 189 BGII	4.60	-	0.04	2.83	18.62	0.00	5.22	AETL
KCH 9261 BG II	3.90	-	0.02	3.67	15.63	0.00	4.64	AETL
KCH 9234 BG II	2.90	-	0.02	2.83	19.63	0.00	5.08	AETL
NCS 9441	4.10	-	0.00	3.17	17.36	0.00	4.93	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * data based on 20 green bolls, # data based on 2 observation



Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	11.57	-	0.44	15.00	-	0.00	6.75	BETL
PRCH 2799 Bt2 (ZC1)	11.05	-	1.33	15.00	-	0.00	6.85	BETL
AGCH 1121 Bt II	12.03	-	0.89	16.67	-	0.00	7.40	BETL
CCH 529	9.05	-	1.22	18.33	-	0.00	7.15	BETL
GBCH 1718 BG II	7.95	-	1.11	15.00	-	4.44	7.13	BETL
AGCH 1111 Bt II	9.41	-	0.33	20.00	-	0.00	7.44	BETL
US 720 BG II	7.49	-	1.33	15.00	-	0.00	5.95	BETL
PCH 9541	6.90	-	1.11	15.00	-	0.00	5.75	BETL
NBC 2020 BG II (ZC2)	9.80	-	0.78	15.00	-	0.00	6.39	BETL
KCH 9252 BG II	7.83	-	2.33	15.00	-	0.00	6.29	BETL
ECH 189 BGII	12.53	-	1.67	15.00	-	0.00	7.30	BETL
KCH 9261 BG II	10.26	-	0.78	18.33	-	0.00	7.34	BETL
KCH 9234 BG II	8.58	-	0.78	15.00	-	0.00	6.09	BETL
NCS 9441	10.65	-	0.11	13.33	-	0.00	6.02	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given, # data based on 2 observation



Table: Advanced H X H trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	14.64	-	9.22	9.72	-	0.00	8.40	
PRCH 2799 Bt2 (ZC1)	14.08	-	14.03	10.08	-	4.23	10.61	
AGCH 1121 Bt II	15.03	-	14.20	8.95	-	21.73	14.98	
CCH 529	12.26	-	12.27	7.82	-	13.81	11.54	
GBCH 1718 BG II	10.66	-	14.17	10.00	-	14.66	12.37	
AGCH 1111 Bt II	12.55	-	44.07	9.70	-	31.29	24.40	
US 720 BG II	10.27	-	12.87	8.23	-	22.40	13.44	
PCH 9541	9.36	-	12.48	10.21	-	69.37	25.36	
NBC 2020 BG II (ZC2)	13.13	-	8.59	10.65	-	45.61	19.49	
KCH 9252 BG II	11.22	-	13.48	9.24	-	9.03	10.74	
ECH 189 BGII	15.53	-	4.77	9.82	-	31.42	15.38	
KCH 9261 BG II	13.58	-	14.94	10.99	-	51.94	22.86	
KCH 9234 BG II	11.95	-	15.38	8.78	-	66.15	25.56	
NCS 9441	13.78	-	10.88	10.52	-	28.85	16.01	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	9.87	-	5.39	3.47	-	0.00	4.68	
PRCH 2799 Bt2 (ZC1)	9.47	-	7.22	3.53	-	1.95	5.54	
AGCH 1121 Bt II	10.24	-	8.00	3.83	-	5.37	6.86	
CCH 529	6.53	-	5.84	4.31	-	4.56	5.31	
GBCH 1718 BG II	5.28	-	7.37	3.93	-	1.88	4.62	
AGCH 1111 Bt II	7.26	-	24.03	3.49	-	18.53	13.33	
US 720 BG II	4.80	-	7.43	2.70	-	9.33	6.07	
PCH 9541	4.26	-	6.70	4.35	-	36.81	13.03	
NBC 2020 BG II (ZC2)	7.80	-	5.12	3.57	-	17.73	8.55	
KCH 9252 BG II	5.37	-	7.71	3.01	-	3.00	4.77	
ECH 189 BGII	10.76	-	2.39	3.90	-	9.94	6.75	
KCH 9261 BG II	8.11	-	8.29	4.00	-	22.76	10.79	
KCH 9234 BG II	5.82	-	7.74	3.28	-	21.37	9.55	
NCS 9441	8.63	-	6.34	4.00	-	31.55	12.63	

JU-Junagadh,AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions– No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
DACH 72C72 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
PRCH 2799 Bt2 (ZC1)	7.00	-	4.00	5.00	-	3.00	4.75	
AGCH 1121 Bt II	7.00	-	4.00	5.00	-	3.00	4.75	
CCH 529	7.00	-	4.00	5.00	-	3.00	4.75	
GBCH 1718 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
AGCH 1111 Bt II	7.00	-	4.00	5.00	-	3.00	4.75	
US 720 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
PCH 9541	7.00	-	4.00	5.00	-	3.00	4.75	
NBC 2020 BG II (ZC2)	7.00	-	4.00	5.00	-	3.00	4.75	
KCH 9252 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
ECH 189 BGII	7.00	-	4.00	5.00	-	3.00	4.75	
KCH 9261 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
KCH 9234 BG II	7.00	-	4.00	5.00	-	3.00	4.75	
NCS 9441	7.00	-	4.00	5.00	-	3.00	4.75	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Reaction to Diseases

Table 2(a): Advanced Evaluation Trial of Intra-hirsutum Hybrids-I Irrigated (AET-I Hybrids IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																					
			Rahuri												Junagarh									
			CLS		GM		TSV		ALB		BLB		RR		ALS		BLB		GM		CoLS		Internal Boll rot	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52041	DACH 72C72 BG II	0.0	DF	0.0	DF	10.9	R	5.2	R	9.2	R	0.0	DF	13.0	R	0.0	DF	30.2	MR	16.0	R	20.0	R
10	52042	PRCH 2799 Bt2 (ZC1)	0.0	DF	0.0	DF	0.0	DF	4.2	R	4.2	R	0.0	DF	15.2	R	0.3	R	15.0	R	32.3	MR	11.1	R
14	52043	AGCH 1121 Bt II	0.0	DF	0.0	DF	12.1	R	9.3	R	11.5	R	0.0	DF	12.3	R	0.0	DF	13.7	R	16.7	R	13.3	R
3	52044	CCH 529	0.0	DF	0.0	DF	8.2	R	10.2	R	7.5	R	0.0	DF	18.8	R	0.0	DF	12.7	R	22.2	R	17.8	R
1	52045	GBCH 1718 BG II	0.0	DF	0.0	DF	10.5	R	11.7	R	12.3	R	0.0	DF	14.0	R	0.2	R	19.0	R	25.8	MR	13.3	R
5	52046	AGCH 1111 Bt II	0.0	DF	0.0	DF	0.0	DF	0.0	R	6.7	R	0.0	DF	19.2	R	0.0	DF	31.0	MR	23.7	R	17.8	R
8	52047	US 720 BG II	0.0	DF	0.0	DF	4.2	R	12.3	R	10.5	R	0.0	DF	15.0	R	0.0	DF	24.5	R	22.8	R	20.0	R
11	52048	PCH 9541	0.0	DF	0.0	DF	9.4	R	7.2	R	7.5	R	0.0	DF	25.3	MR	0.0	DF	18.2	R	20.0	R	13.3	R
2	52049	NBC 2020 BG II (ZC2)	0.0	DF	0.0	DF	12.5	R	5.3	R	10.3	R	0.0	DF	20.8	R	0.0	DF	14.2	R	22.5	R	8.89	R
12	52050	KCH 9252 BG II	0.0	DF	0.0	DF	5.3	R	11.1	R	0.0	DF	0.0	DF	25.5	MR	0.0	DF	22.5	R	16.5	R	15.6	R
4	52051	ECH 189 BGII	0.0	DF	0.0	DF	12.7	R	8.2	R	7.2	R	0.0	DF	11.3	R	0.5	R	19.8	R	18.3	R	24.4	R
9	52052	KCH 9261 BG II	0.0	DF	0.0	DF	12.1	R	11.7	R	11.5	R	0.0	DF	11.3	R	0.0	DF	23.2	R	12.7	R	17.8	R
13	52053	KCH 9234 BG II	0.0	DF	0.0	DF	6.3	R	9.5	R	9.4	R	0.0	DF	15.7	R	0.8	R	16.8	R	15.0	R	22.2	R
7	52054	NCS 9441	0.0	DF	0.0	DF	7.0	R	0.0	DF	0.0	DF	0.0	DF	21.3	R	0.0	DF	20.7	R	15.8	R	20.0	R



Table 2(b): Advanced Evaluation Trial of Intra-hirsutum Hybrids-I Irrigated (AET-I Hybrids IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52041	DACH 72C72 BG II	25.0	R	15.0	R	30.0	MR	5.0	R
10	52042	PRCH 2799 Bt2 (ZC1)	17.5	R	7.5	R	25.0	R	2.5	R
14	52043	AGCH 1121 Bt II	32.5	MR	17.5	R	37.5	MR	2.5	R
3	52044	CCH 529	25.0	R	32.5	MR	32.5	MR	0.0	DF
1	52045	GBCH 1718 BG II	27.5	MR	40.0	MR	15.0	R	7.5	R
5	52046	AGCH 1111 Bt II	30.0	MR	27.5	MR	30.0	MR	2.5	R
8	52047	US 720 BG II	32.5	MR	30.0	MR	35.0	R	10.0	R
11	52048	PCH 9541	55.0	MS	32.5	MR	67.5	MS	7.5	R
2	52049	NBC 2020 BG II (ZC2)	37.5	MR	27.5	MR	35.0	MR	7.5	R
12	52050	KCH 9252 BG II	55.0	MR	32.5	MR	60.0	MS	0.0	DF
4	52051	ECH 189 BGII	65.0	MS	52.5	MR	77.5	S	5.0	R
9	52052	KCH 9261 BG II	32.5	MR	27.5	MR	30.0	MR	7.5	R
13	52053	KCH 9234 BG II	25.0	R	12.5	R	55.0	MS	5.0	R
7	52054	NCS 9441	52.5	MS	35.0	MR	77.5	S	2.5	R



Evaluation under Unprotected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	9.57	-	2.73	18.33	-	0.67	7.83	BETL
PRCH 2799 Bt2 (ZC1)	11.63	-	2.20	20.43	-	9.89	11.04	AETL
AGCH 1121 Bt II	10.70	-	2.33	19.70	-	2.00	8.68	BETL
CCH 529	9.30	-	2.40	17.37	-	2.53	7.90	BETL
GBCH 1718 BG II	8.23	-	3.00	18.73	-	1.07	7.76	BETL
AGCH 1111 Bt II	7.43	-	3.27	18.07	-	1.22	7.50	BETL
US 720 BG II	8.70	-	2.80	19.97	-	1.24	8.18	BETL
PCH 9541	8.97	-	3.47	19.17	-	4.47	9.02	BETL
NBC 2020 BG II (ZC2)	10.17	-	3.20	16.93	-	2.66	8.24	BETL
KCH 9252 BG II	11.17	-	3.07	16.67	-	2.44	8.34	BETL
ECH 189 BGII	7.97	-	3.60	17.63	-	2.09	7.82	BETL
KCH 9261 BG II	7.30	-	3.93	19.30	-	2.00	8.13	BETL
KCH 9234 BG II	6.97	-	3.53	16.10	-	6.58	8.29	BETL
NCS 9441	10.00	-	2.93	17.97	-	6.18	9.27	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	7.17	-	2.60	2.84	-	3.02	3.91	BETL
PRCH 2799 Bt2 (ZC1)	8.10	-	2.80	2.69	-	2.56	4.04	BETL
AGCH 1121 Bt II	6.10	-	2.13	2.52	-	2.60	3.34	BETL
CCH 529	8.43	-	2.53	2.68	-	2.00	3.91	BETL
GBCH 1718 BG II	9.77	-	3.13	2.69	-	1.98	4.39	BETL
AGCH 1111 Bt II	7.77	-	2.80	2.95	-	1.64	3.79	BETL
US 720 BG II	9.43	-	3.13	2.56	-	3.07	4.55	BETL
PCH 9541	9.03	-	3.13	2.72	-	3.20	4.52	BETL
NBC 2020 BG II (ZC2)	7.50	-	3.47	2.64	-	3.18	4.20	BETL
KCH 9252 BG II	6.50	-	3.47	2.73	-	2.44	3.79	BETL
ECH 189 BGII	9.97	-	3.67	2.64	-	3.20	4.87	BETL
KCH 9261 BG II	9.03	-	3.07	2.87	-	2.93	4.48	BETL
KCH 9234 BG II	6.90	-	3.40	2.54	-	2.20	3.76	BETL
NCS 9441	8.70	-	3.20	2.54	-	2.69	4.28	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	II	-	I	I	-	I	I	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	I	I	
AGCH 1121 Bt II	II	-	I	II	-	I	I	
CCH 529	II	-	I	II	-	II	II	
GBCH 1718 BG II	II	-	I	II	-	II	II	
AGCH 1111 Bt II	II	-	I	I	-	I	I	
US 720 BG II	II	-	I	I	-	I	I	
PCH 9541	II	-	I	I	-	I	I	
NBC 2020 BG II (ZC2)	II	-	I	II	-	I	II	
KCH 9252 BG II	II	-	I	I	-	I	I	
ECH 189 BGII	II	-	I	II	-	I	II	
KCH 9261 BG II	II	-	I	I	-	II	II	
KCH 9234 BG II	II	-	I	I	-	I	I	
NCS 9441	II	-	I	I	-	I	I	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	11.70	-	3.20	18.30	-	0.00	8.30	BETL
PRCH 2799 Bt2 (ZC1)	12.90	-	3.73	16.73	-	0.00	8.34	BETL
AGCH 1121 Bt II	11.17	-	3.60	18.43	-	0.00	8.30	BETL
CCH 529	12.30	-	3.13	18.83	-	0.04	8.58	BETL
GBCH 1718 BG II	13.37	-	3.73	16.40	-	0.00	8.38	BETL
AGCH 1111 Bt II	9.43	-	2.87	17.27	-	0.00	7.39	BETL
US 720 BG II	10.43	-	3.47	19.10	-	0.00	8.25	BETL
PCH 9541	10.83	-	3.67	18.87	-	0.00	8.34	BETL
NBC 2020 BG II (ZC2)	9.10	-	3.47	17.87	-	0.00	7.61	BETL
KCH 9252 BG II	10.17	-	3.93	18.57	-	0.00	8.17	BETL
ECH 189 BGII	9.77	-	4.00	18.23	-	0.00	8.00	BETL
KCH 9261 BG II	8.23	-	3.27	18.57	-	0.00	7.52	BETL
KCH 9234 BG II	8.77	-	3.07	18.03	-	0.00	7.47	BETL
NCS 9441	8.57	-	2.60	15.43	-	0.00	6.65	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	8.63	-	0.00	2.70	-	1.13	3.12	BETL
PRCH 2799 Bt2 (ZC1)	7.97	-	0.07	2.40	-	0.51	2.74	BETL
AGCH 1121 Bt II	8.23	-	0.33	2.30	-	0.47	2.83	BETL
CCH 529	7.30	-	0.20	2.60	-	0.51	2.65	BETL
GBCH 1718 BG II	9.23	-	0.07	2.47	-	0.58	3.09	BETL
AGCH 1111 Bt II	5.57	-	0.33	2.30	-	0.40	2.15	BETL
US 720 BG II	5.90	-	0.40	2.53	-	0.44	2.32	BETL
PCH 9541	6.37	-	0.40	2.50	-	0.78	2.51	BETL
NBC 2020 BG II (ZC2)	6.90	-	0.27	2.30	-	0.64	2.53	BETL
KCH 9252 BG II	6.17	-	0.40	2.40	-	1.27	2.56	BETL
ECH 189 BGII	7.57	-	0.07	2.50	-	1.42	2.89	BETL
KCH 9261 BG II	7.10	-	0.47	2.33	-	1.24	2.79	BETL
KCH 9234 BG II	8.70	-	0.00	2.57	-	0.78	3.01	BETL
NCS 9441	9.03	-	0.13	2.40	-	0.51	3.02	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	2.80	-	0.78	0.89	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	2.70	-	0.31	0.75	
AGCH 1121 Bt II	0.00	-	0.00	2.87	-	0.11	0.74	
CCH 529	0.00	-	0.00	2.67	-	0.04	0.68	
GBCH 1718 BG II	0.00	-	0.00	2.83	-	0.07	0.73	
AGCH 1111 Bt II	0.00	-	0.00	2.97	-	0.07	0.76	
US 720 BG II	0.00	-	0.00	2.73	-	0.22	0.74	
PCH 9541	0.00	-	0.00	3.10	-	0.04	0.79	
NBC 2020 BG II (ZC2)	0.00	-	0.00	2.97	-	0.04	0.75	
KCH 9252 BG II	0.00	-	0.00	2.90	-	0.18	0.77	
ECH 189 BGII	0.00	-	0.00	2.90	-	0.31	0.80	
KCH 9261 BG II	0.00	-	0.00	2.97	-	0.18	0.79	
KCH 9234 BG II	0.00	-	0.00	3.13	-	0.04	0.79	
NCS 9441	0.00	-	0.00	3.07	-	0.27	0.83	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	5.00	-	0.00	3.67	-	0.22	2.22	AETL
PRCH 2799 Bt2 (ZC1)	4.60	-	0.00	3.17	-	4.56	3.08	AETL
AGCH 1121 Bt II	5.20	-	0.07	3.33	-	6.22	3.71	AETL
CCH 529	3.40	-	0.00	3.67	-	12.78	4.96	AETL
GBCH 1718 BG II	2.60	-	0.00	4.33	-	0.22	1.79	AETL
AGCH 1111 Bt II	3.60	-	0.00	3.83	-	4.11	2.89	AETL
US 720 BG II	2.40	-	0.13	4.17	-	3.44	2.54	AETL
PCH 9541	2.20	-	0.13	4.17	-	0.00	1.63	AETL
NBC 2020 BG II (ZC2)	3.90	-	0.07	3.67	-	7.33	3.74	AETL
KCH 9252 BG II	4.20	-	0.07	3.83	-	5.56	3.41	AETL
ECH 189 BGII	4.90	-	0.00	3.83	-	1.78	2.63	AETL
KCH 9261 BG II	4.20	-	0.13	4.67	-	3.00	3.00	AETL
KCH 9234 BG II	3.20	-	0.00	4.17	-	1.33	2.18	AETL
NCS 9441	4.40	-	0.07	4.33	-	2.11	2.73	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1121 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
CCH 529	0.00	-	0.00	0.00	-	0.00	0.00	BETL
GBCH 1718 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
AGCH 1111 Bt II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
US 720 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
PCH 9541	0.00	-	0.00	0.00	-	1.56	0.39	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9252 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
ECH 189 BGII	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9261 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
KCH 9234 BG II	0.00	-	0.00	0.00	-	0.00	0.00	BETL
NCS 9441	0.00	-	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	11.86	-	6.67	13.58	-	4.44	9.14	BETL
PRCH 2799 Bt2 (ZC1)	11.35	-	3.33	12.57	-	26.67	13.48	AETL
AGCH 1121 Bt II	12.33	-	10.00	12.75	-	22.22	14.32	AETL
CCH 529	9.35	-	6.67	9.43	-	24.44	12.47	AETL
GBCH 1718 BG II	8.25	-	0.00	10.50	-	5.56	6.08	BETL
AGCH 1111 Bt II	9.72	-	0.00	8.09	-	22.22	10.01	AETL
US 720 BG II	7.79	-	3.33	8.25	-	30.00	12.34	AETL
PCH 9541	7.22	-	10.00	12.67	-	20.00	12.47	AETL
NBC 2020 BG II (ZC2)	10.10	-	3.33	11.55	-	23.33	12.08	AETL
KCH 9252 BG II	8.19	-	6.67	10.67	-	18.89	11.10	AETL
ECH 189 BGII	12.82	-	3.33	8.33	-	17.78	10.56	AETL
KCH 9261 BG II	10.56	-	6.67	16.10	-	25.56	14.72	AETL
KCH 9234 BG II	8.89	-	3.33	12.72	-	5.56	7.62	BETL
NCS 9441	10.94	-	10.00	11.90	-	7.78	10.15	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	15.07	-	4.00	13.58	-	0.00	8.16	
PRCH 2799 Bt2 (ZC1)	14.52	-	5.79	12.57	-	76.56	27.36	
AGCH 1121 Bt II	15.46	-	9.24	12.75	-	65.01	25.61	
CCH 529	12.69	-	7.95	9.43	-	65.16	23.81	
GBCH 1718 BG II	11.10	-	23.08	10.50	-	11.89	14.14	
AGCH 1111 Bt II	13.02	-	3.60	8.09	-	56.12	20.21	
US 720 BG II	10.73	-	7.34	8.25	-	53.73	20.01	
PCH 9541	9.83	-	18.42	12.67	-	45.56	21.62	
NBC 2020 BG II (ZC2)	13.57	-	9.20	11.55	-	44.23	19.63	
KCH 9252 BG II	11.67	-	1.79	10.67	-	56.12	20.06	
ECH 189 BGII	15.96	-	0.00	8.33	-	44.23	17.13	
KCH 9261 BG II	14.01	-	11.49	16.10	-	32.34	18.48	
KCH 9234 BG II	12.37	-	2.86	12.72	-	11.89	9.96	
NCS 9441	14.23	-	3.74	11.90	-	14.53	11.10	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
DACH 72C72 BG II	10.17	-	2.80	3.43	-	0.00	4.10	
PRCH 2799 Bt2 (ZC1)	9.76	-	4.55	3.54	-	26.36	11.05	
AGCH 1121 Bt II	10.53	-	6.51	3.50	-	22.89	10.86	
CCH 529	6.84	-	5.40	3.42	-	24.79	10.11	
GBCH 1718 BG II	5.60	-	9.13	4.25	-	4.30	5.82	
AGCH 1111 Bt II	7.56	-	2.70	3.61	-	25.10	9.74	
US 720 BG II	5.15	-	5.50	3.80	-	25.70	10.04	
PCH 9541	4.59	-	9.87	4.24	-	21.78	10.12	
NBC 2020 BG II (ZC2)	8.10	-	6.61	4.64	-	11.45	7.70	
KCH 9252 BG II	5.69	-	1.56	4.44	-	19.12	7.70	
ECH 189 BGII	11.04	-	0.00	5.20	-	21.14	9.34	
KCH 9261 BG II	8.41	-	7.76	3.28	-	24.12	10.89	
KCH 9234 BG II	6.12	-	2.14	3.73	-	3.87	3.97	
NCS 9441	8.93	-	2.57	4.29	-	5.85	5.41	

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Reaction to Diseases

Table: 2(c) Advanced Evaluation Trial of Intra-hirsutum Hybrids-I Irrigated (AET-I Hybrids IRR) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																					
			Rahuri												Junagarh									
			CoLS		GM		TSV		ALB		BLB		RR		ALS		BLB		GM		CoLS		internal Boll rot	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52041	DACH 72C72 BG II	0.0	DF	0.0	DF	39.7	MR	7.7	R	10.7	R	0.0	DF	19.5	R	8.0	R	32.5	MR	17.5	R	26.7	MR
10	52042	PRCH 2799 Bt2 (ZC1)	0.0	DF	0.0	DF	9.5	R	5.2	R	6.3	R	0.0	DF	21.0	R	10.5	R	25.5	MR	33.5	R	20.0	R
14	52043	AGCH 1121 Bt II	0.0	DF	0.0	DF	32.4	MR	12.1	R	13.2	R	0.0	DF	23.5	R	10.0	R	17.0	R	32.0	R	20.0	R
3	52044	CCH 529	0.0	DF	0.0	DF	10.4	R	13.0	R	9.9	R	0.0	DF	19.5	R	9.0	R	24.0	R	34.0	R	26.7	MR
1	52045	GBCH 1718 BG II	0.0	DF	0.0	DF	7.5	R	28.2	MR	25.0	R	0.0	DF	19.5	R	10.5	R	22.5	R	35.0	R	13.3	R
5	52046	AGCH 1111 Bt II	0.0	DF	0.0	DF	12.4	R	5.0	R	8.2	R	0.0	DF	23.0	R	8.0	R	32.5	MR	36.0	R	20.0	R
8	52047	US 720 BG II	0.0	DF	0.0	DF	6.9	R	26.7	MR	12.3	R	0.0	DF	21.5	R	8.0	R	34.5	MR	29.5	R	13.3	R
11	52048	PCH 9541	0.0	DF	0.0	DF	12.6	R	10.0	R	8.9	R	0.0	DF	26.5	MR	10.5	R	22.0	R	29.5	R	20.0	R
2	52049	NBC 2020 BG II (ZC2)	0.0	DF	0.0	DF	29.2	MR	7.9	R	12.1	R	0.0	DF	22.0	R	8.5	R	21.0	R	26.0	R	20.0	R
12	52050	KCH 9252 BG II	0.0	DF	0.0	DF	6.7	R	4.3	R	4.5	R	0.0	DF	27.0	MR	6.5	R	24.5	R	18.5	R	26.7	MR
4	52051	ECH 189 BGII	0.0	DF	0.0	DF	31.2	MR	10.5	R	9.7	R	0.0	DF	18.0	R	8.0	R	20.0	R	34.5	R	20.0	R
9	52052	KCH 9261 BG II	0.0	DF	0.0	DF	24.5	R	8.9	R	23.9	R	0.0	DF	21.5	R	8.0	R	25.0	MR	27.0	R	13.3	R
13	52053	KCH 9234 BG II	0.0	DF	0.0	DF	8.7	R	30.1	MR	11.1	R	0.0	DF	18.5	R	7.5	R	18.5	R	15.0	R	13.3	R
7	52054	NCS 9441	0.0	DF	0.0	DF	8.3	R	17.6	R	3.1	R	0.0	DF	22.0	R	8.5	R	22.0	R	32.0	R	20.0	R



Table: 2(d) Advanced Evaluation Trial of Intra-hirsutum Hybrids-I Irrigated (AET-I Hybrids IRR) under Protected and Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions												Average PDI & Disease Reaction (DR): Unprotected conditions							
			Kaveri, Aurangabad								Ankur, Dongargaon				Kaveri, Aurangabad							
			ALS		GM		BLB		TSV		FLS		BLB		ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52041	DACH 72C72 BG II	8.7	R	6.1	R	4.0	R	1.2	R	6.7	R	0.0	DF	11.7	R	16.3	R	19.7	R	6.1	R
10	52042	PRCH 2799 Bt2 (ZC1)	11.9	R	7.9	R	5.3	R	2.3	R	13.3	MR	0.0	DF	16.6	R	16.8	R	12.8	R	11.7	R
14	52043	AGCH 1121 Bt II	25.2	MR	5.0	R	5.8	R	1.2	R	0.0	DF	0.0	DF	29.4	MR	12.1	R	3.7	R	6.1	R
3	52044	CCH 529	11.3	R	6.4	R	3.5	R	1.0	R	10.0	R	0.0	DF	14.0	R	12.7	R	8.9	R	5.2	R
1	52045	GBCH 1718 BG II	9.2	R	7.4	R	5.0	R	3.1	R	11.7	MR	0.0	DF	10.7	R	13.1	R	12.8	R	16.2	R
5	52046	AGCH 1111 Bt II	11.8	R	7.1	R	6.7	R	1.3	R	0.0	DF	0.0	DF	15.9	R	12.1	R	14.3	R	6.9	R
8	52047	US 720 BG II	12.9	R	5.8	R	4.2	R	2.5	R	0.0	DF	0.0	DF	16.6	R	12.8	R	7.5	R	12.9	R
11	52048	PCH 9541	24.3	R	8.3	R	5.7	R	2.7	R	6.7	R	0.0	DF	28.1	MR	14.2	R	15.5	R	13.9	R
2	52049	NBC 2020 BG II (ZC2)	9.7	R	5.2	R	4.0	R	0.8	R	0.0	DF	0.0	DF	12.4	R	11.0	R	10.0	R	4.3	R
12	52050	KCH 9252 BG II	7.0	R	4.2	R	3.2	R	0.6	R	0.0	DF	30.0	MS	9.1	R	7.9	R	4.7	R	3.0	R
4	52051	ECH 189 BGII	14.0	R	26.1	MR	7.4	R	1.9	R	0.0	DF	0.0	DF	18.7	R	25.4	MR	14.3	R	9.7	R
9	52052	KCH 9261 BG II	6.0	R	3.8	R	2.7	R	0.5	R	0.0	DF	0.0	DF	8.8	R	6.8	R	3.7	R	2.6	R
13	52053	KCH 9234 BG II	6.8	R	4.1	R	3.1	R	0.7	R	0.0	DF	33.3	MS	9.4	R	8.9	R	4.7	R	3.5	R
7	52054	NCS 9441	14.0	R	7.2	R	5.7	R	1.9	R	8.3	R	0.0	DF	17.8	R	13.0	R	10.0	R	9.8	R



Advanced Evaluation Trial of Intra-Hirsutum Bt Hybrids (II) - Irrigated

Constitution of Trial

The trial was constituted with 14 Bt cotton hybrids containing deregulated events along with two different check hybrids as furnished below.

S. No.	Code-I	Code -II	Entries	Sponsored by
1	6	52061	PRCH 2799 Bt2 (ZC1)	
2	10	52062	DC 5105 BG II	Rallis India Ltd
3	14	52063	NBC 2020 BG II (ZC2)	
4	16	52064	KCH 9222 BG II	Kaveri Seed Company Ltd
5	1	52065	KCH 9223 BG II	Kaveri Seed Company Ltd
6	7	52066	RCH 1026 BG II	Rasi Seeds
7	11	52067	GSCH-32 Bt II	Caspian Seeds
8	15	52068	US 717 BG II	Seeds Work International Ltd
9	2	52069	KCH 9225 BG II	Kaveri Seed Company Ltd
10	8	52070	KCH 9221 BG II	Kaveri Seed Company Ltd
11	12	52071	ACH 151-2 BGII	Ajeet seeds pvt ltd
12	3	52072	C 9339 BGII	Mahyco pvt ltd
13	13	52073	SS 459 BG II	Eldorado Agritech Pvt Ltd
14	4	52074	NBC 21 BG II	Nath Biogenes (I) Ltd
15	9	52075	C 9337 BGII	Mahyco pvt ltd
16	5	52076	RCH 1016 BG II	Rasi Seeds

The trial was conducted in eight different locations viz., Junagadh, Anand, Rahuri, Khandwa, Bhawanipatna, Aurangabad (Kaveri Seed Company Ltd.), Jalna (Eldorado), and Gangapur (SeedWorks).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	146.0	141.3	125.0	179.1	143.3	166.1	150.0	130.6	147.7
2	DC 5105 BG II	154.0	164.0	131.0	196.5	170.0	197.7	185.0	157.3	169.4
3	NBC 2020 BG II (ZC2)	126.0	147.3	106.7	148.5	143.0	157.7	153.3	153.5	142.0
4	KCH 9222 BG II	144.0	158.1	129.0	191.1	146.8	187.7	173.3	154.3	160.5
5	KCH 9223 BG II	142.0	181.0	138.3	158.8	144.5	171.1	146.7	150.8	154.2
6	RCH 1026 BG II	126.0	165.3	124.7	145.6	143.8	166.1	161.7	141.4	146.8
7	GSCH-32 Bt II	146.0	154.0	144.0	177.9	134.8	161.1	156.7	136.5	151.4
8	US 717 BG II	146.0	167.7	119.0	186.9	156.0	177.7	161.7	169.1	160.5
9	KCH 9225 BG II	143.0	168.0	127.0	179.8	163.0	194.4	165.0	152.9	161.6
10	KCH 9221 BG II	144.0	178.3	134.7	174.2	147.5	192.7	173.3	154.8	162.4
11	ACH 151-2 BGII	143.0	174.0	121.0	182.1	164.7	181.1	180.0	169.2	164.4
12	C 9339 BGII	140.0	162.3	100.7	168.3	152.3	152.7	155.0	140.9	146.5
13	SS 459 BG II	117.0	134.0	112.7	150.6	135.0	149.4	140.0	144.1	135.4
14	NBC 21 BG II	134.0	163.7	115.0	168.7	138.0	171.1	153.3	151.1	149.4
15	C 9337 BGII	151.0	161.3	105.3	186.0	165.2	181.1	158.3	165.1	159.2
16	RCH 1016 BG II	136.0	154.7	117.3	151.7	145.6	164.4	158.3	145.9	146.7
	CD @ 5%	17.0	24.7	10.2	19.2	35.9	8.4	14.8	9.6	
	CV%	7.3	9.2	5.0	7.8	14.4	24.3	5.5	24.2	



Table: Number of monopodia in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	1.9	2.1	2.1	1.2	2.7	2.3	2.3	1.1	2.0
2	DC 5105 BG II	0.8	1.7	1.9	0.1	1.7	2.0	1.3	1.6	1.4
3	NBC 2020 BG II (ZC2)	0.9	1.5	1.9	0.1	2.2	1.7	2.0	1.8	1.5
4	KCH 9222 BG II	1.0	1.7	1.9	0.2	2.0	2.5	2.0	1.5	1.6
5	KCH 9223 BG II	0.6	1.1	1.8	0.6	2.7	2.0	1.7	1.6	1.5
6	RCH 1026 BG II	1.0	1.8	1.6	0.8	2.2	2.4	1.7	1.9	1.7
7	GSCH-32 Bt II	0.8	1.9	1.7	0.5	2.2	2.0	2.0	1.8	1.6
8	US 717 BG II	0.7	1.7	2.1	0.5	2.3	3.0	2.3	1.6	1.8
9	KCH 9225 BG II	0.3	1.1	1.9	0.5	2.7	3.0	2.3	2.3	1.8
10	KCH 9221 BG II	1.4	1.3	2.1	0.6	2.2	2.3	2.0	1.5	1.7
11	ACH 151-2 BGII	0.4	0.9	1.9	0.1	2.0	1.0	1.3	2.0	1.2
12	C 9339 BGII	0.3	2.0	2.1	0.5	2.0	2.7	2.3	1.7	1.7
13	SS 459 BG II	0.2	1.7	1.6	0.3	1.7	2.0	1.7	1.4	1.3
14	NBC 21 BG II	1.3	2.2	1.6	1.1	2.3	2.2	2.0	1.7	1.8
15	C 9337 BGII	1.2	1.8	1.9	1.2	3.2	2.3	2.0	1.7	1.9
16	RCH 1016 BG II	1.1	2.7	1.5	1.3	2.3	2.3	2.7	1.4	1.9
	CD @ 5%	0.3	0.7	NS	NS	0.7	17.1	0.7	20.5	
	CV%	18.9	25.5	17.4		18.0	0.6	22.4	0.6	



Table: Number of sympodia in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	20.3	17.7	16.3	29.0	19.0	16.8	17.3	21.4	19.7
2	DC 5105 BG II	20.3	21.3	14.6	26.9	17.0	17.1	19.3	23.9	20.1
3	NBC 2020 BG II (ZC2)	19.6	16.6	13.5	26.8	17.7	15.8	17.3	23.9	18.9
4	KCH 9222 BG II	22.1	19.5	17.3	28.7	22.5	16.6	18.3	23.1	21.0
5	KCH 9223 BG II	20.1	18.4	15.9	25.3	20.7	15.4	17.3	22.9	19.5
6	RCH 1026 BG II	18.5	17.8	18.9	23.4	21.7	16.3	16.3	21.9	19.4
7	GSCH-32 Bt II	20.5	18.3	22.3	29.6	19.8	14.9	19.0	22.3	20.8
8	US 717 BG II	19.6	18.3	13.7	28.2	19.3	15.0	18.0	25.4	19.7
9	KCH 9225 BG II	20.1	18.5	13.6	26.7	22.3	16.1	19.7	22.6	20.0
10	KCH 9221 BG II	21.1	21.9	17.7	26.9	22.3	15.3	20.0	24.4	21.2
11	ACH 151-2 BGII	21.6	21.0	13.7	28.2	21.8	15.5	21.0	26.3	21.1
12	C 9339 BGII	20.7	19.9	13.5	25.3	21.8	15.7	18.3	22.7	19.7
13	SS 459 BG II	18.3	17.9	14.6	25.5	21.0	13.3	15.7	23.5	18.7
14	NBC 21 BG II	19.4	20.1	15.9	29.4	20.9	18.1	15.7	23.7	20.4
15	C 9337 BGII	19.3	18.4	15.9	28.2	22.2	16.9	18.7	24.3	20.5
16	RCH 1016 BG II	19.7	18.4	16.2	24.3	20.7	16.8	17.0	23.6	19.6
	CD @ 5%	2.1	2.6	2.7	3.2	2.9	8.6	2.4	6.6	
	CV%	6.2	8.1	10.3	8.2	8.5	2.3	8.1	2.6	



Table: Boll weight (g) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	4.9	4.6	6.3	5.2	4.9	5.8	5.6	5.5	5.4
2	DC 5105 BG II	5.1	3.6	6.8	5.8	5.1	5.2	5.0	5.3	5.2
3	NBC 2020 BG II (ZC2)	5.2	5.4	6.3	5.6	4.9	5.3	5.4	5.4	5.4
4	KCH 9222 BG II	5.1	4.0	7.0	5.7	4.8	5.0	5.7	5.5	5.4
5	KCH 9223 BG II	5.1	3.9	5.9	5.6	6.0	5.6	5.7	5.3	5.4
6	RCH 1026 BG II	4.7	3.8	5.9	5.3	4.9	5.1	5.2	5.4	5.0
7	GSCH-32 Bt II	5.2	4.2	7.0	6.1	5.0	5.5	5.7	5.4	5.5
8	US 717 BG II	5.6	5.8	6.0	5.9	6.2	6.0	6.0	5.6	5.9
9	KCH 9225 BG II	5.4	4.4	4.7	5.5	5.9	5.0	5.7	5.4	5.3
10	KCH 9221 BG II	4.9	4.1	6.4	5.7	4.8	4.9	5.6	5.5	5.2
11	ACH 151-2 BGII	5.6	5.0	6.0	5.8	5.5	5.6	5.3	5.8	5.6
12	C 9339 BGII	5.2	4.3	6.3	5.6	6.2	6.1	6.1	5.7	5.7
13	SS 459 BG II	5.4	4.8	6.6	5.6	5.7	6.0	5.8	5.9	5.7
14	NBC 21 BG II	5.0	4.8	6.1	5.7	5.4	5.5	5.3	5.4	5.4
15	C 9337 BGII	5.5	5.5	5.9	5.4	6.1	5.7	5.7	5.6	5.7
16	RCH 1016 BG II	5.4	3.9	5.9	5.0	4.4	4.8	5.2	4.9	4.9
	CD @ 5%	0.5	1.4	0.6	0.8	1.0	5.5	0.4	7.1	
	CV%	6.1	18.7	5.3	10.6	11.4	0.5	4.4	0.6	



Table: Number of bolls / plant in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	32.1	26.8	53.1	37.6	34.5	37.4	50.3	38.1	38.7
2	DC 5105 BG II	30.3	33.7	48.9	45.5	35.7	43.9	51.7	49.2	42.4
3	NBC 2020 BG II (ZC2)	25.7	29.2	35.5	37.5	30.2	35.9	44.0	41.1	34.9
4	KCH 9222 BG II	35.5	32.7	62.3	47.1	42.8	45.3	58.3	43.7	46.0
5	KCH 9223 BG II	30.2	27.6	47.8	46.4	38.2	37.3	60.7	48.5	42.1
6	RCH 1026 BG II	32.7	29.4	52.6	35.8	39.2	40.7	49.7	41.3	40.2
7	GSCH-32 Bt II	26.7	27.9	57.2	47.0	31.5	36.0	45.0	39.8	38.9
8	US 717 BG II	23.7	32.3	38.3	42.4	32.7	34.4	47.7	42.5	36.8
9	KCH 9225 BG II	32.2	35.2	38.7	47.6	42.3	41.9	56.3	37.2	41.4
10	KCH 9221 BG II	37.7	34.9	61.5	49.2	36.2	43.4	55.7	43.4	45.3
11	ACH 151-2 BGII	32.4	35.0	42.6	48.7	29.2	34.6	50.7	39.3	39.1
12	C 9339 BGII	26.5	28.8	32.7	36.7	37.3	35.5	39.7	38.3	34.4
13	SS 459 BG II	24.0	24.2	39.5	38.8	40.5	35.8	46.3	39.6	36.1
14	NBC 21 BG II	33.3	42.2	53.4	41.7	38.3	44.3	56.7	39.3	43.7
15	C 9337 BGII	31.9	28.7	38.3	45.1	37.5	39.7	46.0	47.2	39.3
16	RCH 1016 BG II	30.3	40.6	50.2	46.9	35.3	40.8	54.3	42.5	42.6
	CD @ 5%	6.3	6.5	7.2	7.4	7.1	10.6	5.5	13.8	
	CV%	12.4	12.2	9.2	11.9	11.7	7.0	6.5	9.7	



Table: Number of bolls / sq.m. in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	66.8	49.6	73.3	114.3	67.0	51.9	69.9	60.4	69.2
2	DC 5105 BG II	63.4	62.5	67.5	139.5	69.7	60.9	71.8	78.1	76.7
3	NBC 2020 BG II (ZC2)	54.1	54.1	48.9	114.1	57.7	49.9	61.1	65.3	63.2
4	KCH 9222 BG II	73.5	60.6	85.9	144.8	82.0	63.0	81.0	69.3	82.5
5	KCH 9223 BG II	63.9	51.1	66.0	142.5	73.7	51.9	84.3	76.9	76.3
6	RCH 1026 BG II	67.7	54.4	72.6	108.6	77.3	56.6	69.0	65.6	71.5
7	GSCH-32 Bt II	56.1	51.7	78.9	144.4	58.7	50.0	62.5	63.2	70.7
8	US 717 BG II	49.9	59.8	52.8	129.7	62.0	47.8	66.2	67.4	67.0
9	KCH 9225 BG II	66.4	65.2	53.4	146.3	80.7	58.1	78.2	59.1	75.9
10	KCH 9221 BG II	77.2	64.6	84.9	151.4	68.7	60.3	77.3	68.9	81.7
11	ACH 151-2 BGII	67.3	64.8	58.8	149.7	53.3	48.1	70.4	62.5	71.9
12	C 9339 BGII	56.6	53.3	45.1	111.3	73.0	49.3	55.1	60.7	63.1
13	SS 459 BG II	50.7	44.8	54.6	118.2	79.7	49.7	64.4	62.9	65.6
14	NBC 21 BG II	69.1	78.1	73.7	127.3	76.7	61.6	78.7	62.4	78.5
15	C 9337 BGII	66.1	53.1	52.8	138.2	73.0	55.2	63.9	74.9	72.2
16	RCH 1016 BG II	63.7	75.2	69.3	144.2	70.7	56.7	75.5	67.4	77.8
	CD @ 5%	12.8	12.0	10.0	23.6	14.3	10.6	7.6	13.8	
	CV%	12.2	12.2	9.2	12.4	12.2	9.7	6.5	15.3	



Table: Lint Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	6.0	3.5	6.1	5.5	6.7	6.3	5.7	5.7	5.7
2	DC 5105 BG II	5.3	5.6	5.9	5.6	4.9	6.8	5.5	6.5	5.8
3	NBC 2020 BG II (ZC2)	4.8	5.2	5.1	6.6	4.6	5.3	4.9	5.5	5.3
4	KCH 9222 BG II	4.8	4.4	6.5	5.6	5.4	4.5	5.1	5.5	5.2
5	KCH 9223 BG II	5.3	8.7	6.5	6.0	4.7	4.6	4.7	5.8	5.8
6	RCH 1026 BG II	5.5	6.5	6.4	5.2	6.4	5.1	5.8	6.5	5.9
7	GSCH-32 Bt II	5.3	4.9	5.1	6.5	5.2	5.3	4.8	4.8	5.2
8	US 717 BG II	5.8	5.4	6.4	6.6	5.1	6.7	6.2	6.8	6.1
9	KCH 9225 BG II	5.6	9.7	5.4	5.8	4.6	5.5	5.8	5.6	6.0
10	KCH 9221 BG II	5.2	4.5	6.0	5.3	5.1	5.4	5.5	4.8	5.2
11	ACH 151-2 BGII	6.1	4.8	4.5	6.3	6.1	5.4	5.2	5.9	5.5
12	C 9339 BGII	5.1	5.1	4.7	6.4	3.9	5.3	4.5	5.2	5.0
13	SS 459 BG II	5.5	5.4	5.9	6.3	6.0	6.2	5.9	6.4	6.0
14	NBC 21 BG II	6.4	5.3	6.0	6.2	5.5	6.1	5.6	5.8	5.9
15	C 9337 BGII	6.2	5.5	4.7	6.1	4.6	5.1	5.3	5.0	5.3
16	RCH 1016 BG II	6.3	6.4	5.9	5.8	6.0	5.2	5.2	5.4	5.8
	CD @ 5%	0.8	0.9			0.4	6.3	0.6	7.0	
	CV%	9.0	12.0			4.2	0.6	7.2	0.7	



Table: Seed Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	11.7	8.0	10.4	9.9	11.1	10.0	9.7	10.7	10.2
2	DC 5105 BG II	10.5	8.7	9.7	9.9	8.4	10.3	9.3	10.3	9.6
3	NBC 2020 BG II (ZC2)	10.7	9.0	10.3	11.9	9.4	10.3	9.3	10.7	10.2
4	KCH 9222 BG II	9.0	7.7	11.3	10.5	10.4	8.7	8.7	10.3	9.6
5	KCH 9223 BG II	11.8	8.7	11.2	11.8	9.4	8.3	8.0	10.3	9.9
6	RCH 1026 BG II	11.3	9.3	11.3	8.9	10.3	8.7	9.7	10.7	10.0
7	GSCH-32 Bt II	11.8	8.7	10.7	11.1	10.4	10.3	9.3	10.3	10.3
8	US 717 BG II	12.8	8.7	12.7	11.5	10.2	11.3	11.0	11.7	11.2
9	KCH 9225 BG II	10.3	9.7	9.2	10.5	8.4	9.3	9.3	10.3	9.6
10	KCH 9221 BG II	9.7	8.3	11.1	10.1	10.6	10.7	9.7	10.3	10.1
11	ACH 151-2 BGII	11.3	9.0	9.5	11.7	10.4	10.3	9.7	11.3	10.4
12	C 9339 BGII	10.8	9.3	10.0	12.3	8.4	10.7	8.7	10.3	10.1
13	SS 459 BG II	12.2	8.3	10.8	11.7	11.2	10.3	10.3	10.7	10.7
14	NBC 21 BG II	11.8	9.0	10.9	12.0	10.7	11.0	9.7	11.0	10.8
15	C 9337 BGII	11.8	10.3	9.5	11.7	9.1	10.7	10.7	10.3	10.5
16	RCH 1016 BG II	12.2	9.3	10.8	10.6	10.0	9.3	9.7	10.3	10.3
	CD @ 5%	1.3	1.3			0.5	5.7	0.9	8.0	
	CV%	7.1	11.4			3.2	1.0	5.4	1.4	



Table: Ginning outturn (%) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	34.2	30.6	37.1	35.6	37.5	38.7	36.8	34.9	35.7
2	DC 5105 BG II	33.3	39.0	37.7	36.1	36.5	38.2	37.0	38.7	37.1
3	NBC 2020 BG II (ZC2)	31.2	36.7	33.0	35.8	33.1	33.8	34.3	34.2	34.0
4	KCH 9222 BG II	35.0	36.2	36.5	36.7	34.1	35.2	37.0	34.6	35.7
5	KCH 9223 BG II	30.7	45.6	36.6	37.1	33.5	35.7	36.9	35.9	36.5
6	RCH 1026 BG II	32.5	41.0	36.1	37.1	38.3	37.2	37.6	38.0	37.2
7	GSCH-32 Bt II	31.0	36.1	32.4	37.2	33.3	33.9	33.9	31.6	33.7
8	US 717 BG II	31.2	38.4	33.4	36.6	33.4	38.3	36.1	36.8	35.5
9	KCH 9225 BG II	35.3	46.4	36.9	37.2	35.3	37.1	38.2	35.0	37.7
10	KCH 9221 BG II	35.0	35.2	35.0	37.1	32.4	33.6	36.1	31.9	34.5
11	ACH 151-2 BGII	35.0	34.7	32.3	37.5	36.9	34.3	35.1	34.2	35.0
12	C 9339 BGII	32.2	35.6	31.7	34.3	31.9	33.3	34.3	33.7	33.4
13	SS 459 BG II	31.0	39.4	35.5	34.9	34.8	37.5	36.5	37.4	35.9
14	NBC 21 BG II	35.0	37.0	35.5	33.9	33.9	35.5	36.5	34.5	35.2
15	C 9337 BGII	34.5	34.7	33.1	36.3	33.4	32.5	33.2	32.8	33.8
16	RCH 1016 BG II	34.2	40.9	35.1	36.5	37.4	35.7	34.9	34.3	36.1
	CD @ 5%	2.0	7.1			1.2	1.8	1.7	3.7	
	CV%	3.6	16.8			2.0	1.1	2.8	2.2	



Table: Upper Half Mean Length (mm) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	28.5	27.8	29.8	27.7	27.3	27.8	26.6	29.8	28.2
2	DC 5105 BG II	26.9	26.3	29.7	26.6	26.2	24.7	24.1	26.9	26.4
3	NBC 2020 BG II (ZC2)	30.6	29.8	29.8	29.1	29.2	29.0	27.9	30.5	29.5
4	KCH 9222 BG II	27.0	26.1	28.4	26.2	26.9	26.3	25.8	28.0	26.8
5	KCH 9223 BG II	29.9	30.7	30.5	28.4	31.7	28.2	28.5	30.1	29.8
6	RCH 1026 BG II	28.5	26.0	27.8	26.1	26.7	25.7	25.6	28.1	26.8
7	GSCH-32 Bt II	29.9	29.0	30.2	28.4	30.7	30.4	28.9	29.6	29.6
8	US 717 BG II	30.4	31.3	30.4	29.7	29.7	29.8	28.8	31.1	30.2
9	KCH 9225 BG II	30.2	28.3	29.3	28.6	31.1	28.2	27.2	31.6	29.3
10	KCH 9221 BG II	27.7	26.0	27.2	27.2	27.5	27.4	26.2	28.7	27.2
11	ACH 151-2 BGII	27.7	28.7	27.2	27.1	25.4	26.1	25.8	28.2	27.0
12	C 9339 BGII	29.1	27.9	26.5	27.4	28.2	27.6	25.3	27.3	27.4
13	SS 459 BG II	29.7	28.1	28.6	29.2	28.9	27.8	27.5	30.1	28.7
14	NBC 21 BG II	29.4	26.7	28.5	27.6	28.3	27.3	26.5	30.0	28.0
15	C 9337 BGII	29.5	28.2	26.5	27.8	28.0	27.7	27.4	30.0	28.1
16	RCH 1016 BG II	28.4	28.2	29.3	27.7	28.5	28.6	27.6	29.3	28.5



Table: Uniformity index under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	83.0	81.7	86.0	84.0	84.0	85.0	84.0	85.0	84.1
2	DC 5105 BG II	83.0	82.8	83.0	84.0	84.0	83.0	81.0	85.0	83.2
3	NBC 2020 BG II (ZC2)	85.0	84.9	85.0	83.0	85.0	83.0	81.0	85.0	84.0
4	KCH 9222 BG II	85.0	82.8	84.0	83.0	84.0	84.0	81.0	85.0	83.6
5	KCH 9223 BG II	84.0	84.6	87.0	84.0	86.0	84.0	82.0	86.0	84.7
6	RCH 1026 BG II	86.0	81.9	85.0	84.0	83.0	84.0	81.0	87.0	84.0
7	GSCH-32 Bt II	84.0	82.6	87.0	84.0	87.0	86.0	84.0	84.0	84.8
8	US 717 BG II	85.0	85.2	86.0	83.0	86.0	85.0	84.0	87.0	85.2
9	KCH 9225 BG II	84.0	81.7	85.0	85.0	86.0	83.0	83.0	86.0	84.2
10	KCH 9221 BG II	85.0	82.3	84.0	85.0	84.0	84.0	84.0	86.0	84.3
11	ACH 151-2 BGII	85.0	85.0	84.0	86.0	80.0	85.0	81.0	85.0	83.9
12	C 9339 BGII	86.0	81.6	85.0	85.0	85.0	85.0	82.0	86.0	84.5
13	SS 459 BG II	85.0	85.9	85.0	86.0	86.0	84.0	83.0	84.0	84.9
14	NBC 21 BG II	86.0	82.5	85.0	84.0	85.0	84.0	84.0	87.0	84.7
15	C 9337 BGII	86.0	85.1	85.0	85.0	87.0	86.0	84.0	86.0	85.5
16	RCH 1016 BG II	85.0	84.2	87.0	84.0	87.0	85.0	82.0	85.0	84.9



Table: Micronaire under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	5.0	3.4	4.3	3.8	4.4	4.6	4.4	4.8	4.3
2	DC 5105 BG II	4.9	3.9	3.9	4.0	4.9	4.5	4.4	4.4	4.4
3	NBC 2020 BG II (ZC2)	4.3	4.0	3.2	4.0	4.3	4.1	3.9	4.2	4.0
4	KCH 9222 BG II	4.8	4.5	4.2	4.1	4.6	4.6	4.5	5.1	4.6
5	KCH 9223 BG II	5.0	4.5	4.0	4.6	4.6	4.4	4.5	4.9	4.6
6	RCH 1026 BG II	4.8	4.4	4.2	3.8	4.7	5.0	4.3	4.9	4.5
7	GSCH-32 Bt II	3.8	4.5	3.3	3.9	4.2	4.2	4.1	4.0	4.0
8	US 717 BG II	5.0	4.6	4.6	4.1	4.5	5.1	5.1	5.1	4.8
9	KCH 9225 BG II	5.4	4.7	4.6	4.5	5.2	5.0	4.6	5.0	4.9
10	KCH 9221 BG II	5.1	4.2	4.7	4.1	4.8	4.5	4.4	4.7	4.6
11	ACH 151-2 BGII	5.5	4.8	4.7	4.9	4.9	4.8	4.9	4.8	4.9
12	C 9339 BGII	4.8	4.7	4.1	4.6	5.0	4.8	4.7	4.7	4.7
13	SS 459 BG II	4.9	4.5	4.5	4.1	4.9	4.8	4.5	4.8	4.6
14	NBC 21 BG II	5.1	5.2	4.2	4.6	5.0	5.0	5.1	4.8	4.9
15	C 9337 BGII	4.5	4.4	3.9	4.1	4.4	4.4	4.4	4.7	4.4
16	RCH 1016 BG II	5.3	4.3	4.1	4.9	4.8	5.1	4.7	5.3	4.8



Table: Tenacity under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	29.9	28.4	29.8	27.8	27.2	28.1	27.7	30.3	28.7
2	DC 5105 BG II	29.4	27.6	28.4	28.2	28.4	25.3	26.1	28.4	27.7
3	NBC 2020 BG II (ZC2)	31.0	31.1	31.5	30.8	30.2	30.2	28.9	32.9	30.8
4	KCH 9222 BG II	28.7	27.5	30.5	27.9	28.8	27.3	27.8	31.2	28.7
5	KCH 9223 BG II	30.8	30.0	30.7	29.0	29.9	28.0	28.7	32.7	30.0
6	RCH 1026 BG II	30.1	27.7	29.7	28.1	29.2	25.1	27.3	29.6	28.4
7	GSCH-32 Bt II	31.8	30.7	32.6	29.8	30.3	28.5	30.8	31.5	30.8
8	US 717 BG II	31.7	31.3	29.9	29.4	28.3	28.1	28.5	33.0	30.0
9	KCH 9225 BG II	31.5	28.8	29.5	28.8	33.1	29.2	29.3	31.8	30.3
10	KCH 9221 BG II	29.0	27.7	29.5	29.6	29.2	29.2	27.1	31.9	29.2
11	ACH 151-2 BGII	29.5	30.5	29.5	28.3	25.2	27.7	27.3	29.6	28.5
12	C 9339 BGII	31.4	30.0	28.6	28.7	27.3	27.9	26.6	29.2	28.7
13	SS 459 BG II	29.8	30.6	29.9	28.2	31.2	29.1	26.9	31.8	29.7
14	NBC 21 BG II	30.7	28.7	30.2	28.0	30.9	26.1	27.7	31.3	29.2
15	C 9337 BGII	31.7	30.9	27.7	30.0	31.2	29.4	27.6	31.8	30.0
16	RCH 1016 BG II	30.6	30.0	31.1	29.0	29.5	28.6	29.0	30.5	29.8



Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	12.86	25.00	13.08	17.30	20.20	16.95	27.79	9.17	17.79
2	DC 5105 BG II	13.63	21.45	9.88	21.59	24.17	19.67	31.95	11.79	19.27
3	NBC 2020 BG II (ZC2)	10.29	27.74	7.89	16.05	19.30	17.47	23.10	7.99	16.23
4	KCH 9222 BG II	16.85	42.90	16.41	22.44	23.81	21.13	37.21	13.03	24.22
5	KCH 9223 BG II	12.73	24.61	8.64	21.80	26.61	24.33	38.45	12.29	21.18
6	RCH 1026 BG II	11.96	49.38	11.50	15.71	27.44	23.05	23.98	8.56	21.45
7	GSCH-32 Bt II	9.13	38.00	14.92	22.16	23.27	16.19	25.27	11.46	20.05
8	US 717 BG II	9.77	24.23	7.05	20.11	22.73	20.99	31.47	11.76	18.51
9	KCH 9225 BG II	13.25	31.64	5.28	22.61	25.94	17.76	38.56	8.93	20.50
10	KCH 9221 BG II	15.82	40.12	13.52	22.95	18.67	20.37	36.09	11.67	22.40
11	ACH 151-2 BGII	16.59	38.97	8.84	23.81	19.66	16.25	27.75	8.26	20.02
12	C 9339 BGII	12.48	6.17	7.97	16.11	28.83	13.88	24.08	7.86	14.67
13	SS 459 BG II	10.16	31.02	9.62	16.74	23.09	20.88	25.00	13.37	18.74
14	NBC 21 BG II	12.47	21.41	9.25	17.10	23.99	19.29	31.87	8.51	17.99
15	C 9337 BGII	13.89	8.99	8.19	21.52	22.91	10.72	26.65	8.20	15.13
16	RCH 1016 BG II	11.96	19.98	13.28	22.36	23.99	19.15	27.60	8.72	18.38
	CD @ 5%	3.54		2.35		4.24	8.15	3.15	12.19	
	CV%	16.66		13.70		10.87	2.53	6.33	2.05	



Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean
1	PRCH 2799 Bt2 (ZC1)	14.66	11.73	14.74	6.08	4.91	7.46	1.09	10.23	8.86
2	DC 5105 BG II	13.12	14.45	18.25	6.45	2.46	5.87	2.04	11.35	9.25
3	NBC 2020 BG II (ZC2)	12.99	15.90	10.81	6.55	4.16	5.72	0.65	10.72	8.44
4	KCH 9222 BG II	14.92	16.38	17.86	6.33	2.83	5.99	2.28	11.10	9.71
5	KCH 9223 BG II	14.15	16.96	14.76	6.88	3.78	4.28	1.53	10.39	9.09
6	RCH 1026 BG II	15.05	18.79	14.53	5.52	2.49	4.19	2.38	10.65	9.20
7	GSCH-32 Bt II	15.05	17.31	17.04	6.62	2.74	7.71	1.57	8.85	9.61
8	US 717 BG II	12.60	23.47	12.37	6.70	3.02	7.32	2.93	11.63	10.01
9	KCH 9225 BG II	17.10	25.77	12.90	6.38	6.33	8.34	1.09	10.36	11.03
10	KCH 9221 BG II	16.20	18.06	17.88	6.86	6.43	6.91	1.79	11.60	10.72
11	ACH 151-2 BGII	15.30	17.40	12.84	5.95	3.69	7.34	1.89	10.98	9.42
12	C 9339 BGII	11.45	24.52	9.38	6.26	4.06	6.09	2.67	11.65	9.51
13	SS 459 BG II	11.96	9.97	11.80	6.19	6.35	6.27	1.70	10.65	8.11
14	NBC 21 BG II	16.72	25.08	17.76	6.33	6.43	7.75	1.23	12.95	11.78
15	C 9337 BGII	16.59	21.68	10.32	6.80	5.76	10.15	2.35	14.11	10.97
16	RCH 1016 BG II	16.97	19.10	11.99	6.31	2.74	6.62	0.86	10.56	9.39
	CD @ 5%	3.16		3.16		1.38	12.35	1.73	13.56	
	CV%	12.90		13.76		19.48	1.39	59.26	2.51	



Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Anand	Rahuri	Khandwa	B'Patna	Gangapur (SeedWorks)	Aurangabad (Kaveri)	Jalna (El Dorado)	Mean	Rank	% Inc over best check
1	PRCH 2799 Bt2 (ZC1)	27.52	20.06	27.82	23.37	25.12	24.41	28.88	19.40	24.57	13	0.0
2	DC 5105 BG II	26.75	21.60	28.12	28.04	26.63	25.54	33.99	23.13	26.73	6	8.8
3	NBC 2020 BG II (ZC2)	23.28	25.14	18.70	22.60	23.46	23.19	23.75	18.71	22.35	16	-9.0
4	KCH 9222 BG II	31.76	30.68	34.27	28.77	26.65	27.11	39.49	24.13	30.36	1	23.6
5	KCH 9223 BG II	26.88	25.17	23.40	28.68	30.39	28.62	39.98	22.67	28.22	4	14.9
6	RCH 1026 BG II	27.01	35.25	26.03	21.23	29.93	27.24	26.36	19.21	26.53	7	8.0
7	GSCH-32 Bt II	24.18	29.98	31.96	28.78	26.01	23.90	26.85	20.31	26.50	9	7.8
8	US 717 BG II	22.38	31.55	19.42	26.81	25.75	28.30	34.40	23.39	26.50	8	7.9
9	KCH 9225 BG II	30.35	36.32	18.18	28.99	32.27	26.10	39.65	19.29	28.89	3	17.6
10	KCH 9221 BG II	32.02	31.43	31.40	29.81	25.10	27.29	37.89	23.28	29.78	2	21.2
11	ACH 151-2 BGII	31.89	30.39	21.69	29.77	23.35	23.59	29.64	19.24	26.20	10	6.6
12	C 9339 BGII	23.92	26.58	17.35	22.37	32.89	19.97	26.76	19.51	23.67	15	-3.7
13	SS 459 BG II	22.12	20.31	21.42	22.93	29.44	27.15	26.70	24.02	24.26	14	-1.3
14	NBC 21 BG II	29.19	32.21	27.02	23.43	30.42	27.05	33.10	21.46	27.99	5	13.9
15	C 9337 BGII	30.48	24.68	18.50	28.32	28.67	20.87	29.00	22.31	25.35	12	3.2
16	RCH 1016 BG II	28.94	25.76	25.26	28.67	26.73	25.77	28.46	19.28	26.11	11	6.3
	CD @ 5%	3.52		3.98	4.56	4.49	7.07	4.06	9.10			
	CV%	7.70		9.92	12.06	9.73	2.99	7.72	3.22			



Evaluation under Protected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	8.73	2.35	-	14.23	12.25	15.04	10.52	AETL
DC 5105 BG II	8.43	2.28	-	11.97	15.32	16.98	11.00	AETL
NBC 2020 BG II (ZC2)	10.13	1.62	-	11.57	12.30	1.78	7.48	BETL
KCH 9222 BG II	7.20	0.68	-	11.23	15.20	0.67	7.00	BETL
KCH 9223 BG II	9.17	1.55	-	11.60	15.32	1.58	7.84	BETL
RCH 1026 BG II	8.17	0.44	-	10.50	25.25	3.78	9.63	BETL
GSCH-32 Bt II	6.33	1.02	-	10.83	12.25	25.07	11.10	AETL
US 717 BG II	7.83	0.70	-	9.87	29.35	22.22	13.99	AETL
KCH 9225 BG II	9.60	0.38	-	10.67	25.32	0.80	9.35	BETL
KCH 9221 BG II	6.90	1.08	-	11.07	15.32	2.00	7.27	BETL
ACH 151-2 BGII	6.63	0.88	-	10.33	15.36	3.91	7.42	BETL
C 9339 BGII	7.63	1.28	-	11.07	13.25	2.62	7.17	BETL
SS 459 BG II	8.97	2.08	-	10.28	16.35	1.00	7.74	BETL
NBC 21 BG II	7.37	0.41	-	9.73	24.32	1.62	8.69	BETL
C 9337 BGII	9.87	1.88	-	10.90	23.35	0.00	9.20	BETL
RCH 1016 BG II	9.37	1.42	-	10.33	25.14	27.98	14.85	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	8.80	1.40	-	1.87	6.23	1.20	3.90	BETL
DC 5105 BG II	7.20	1.33	-	1.83	8.36	0.47	3.84	BETL
NBC 2020 BG II (ZC2)	9.33	1.12	-	2.10	12.32	0.87	5.15	BETL
KCH 9222 BG II	7.27	0.43	-	2.12	5.36	0.51	3.14	BETL
KCH 9223 BG II	6.87	1.00	-	1.90	4.35	0.82	2.99	BETL
RCH 1026 BG II	6.17	0.34	-	2.12	6.36	0.33	3.06	BETL
GSCH-32 Bt II	6.43	0.58	-	1.93	9.34	0.80	3.82	BETL
US 717 BG II	9.67	0.32	-	2.10	8.35	0.64	4.22	BETL
KCH 9225 BG II	7.63	0.35	-	2.40	9.36	1.96	4.34	BETL
KCH 9221 BG II	8.13	0.40	-	2.20	4.65	0.29	3.13	BETL
ACH 151-2 BGII	8.47	0.50	-	2.02	5.36	0.58	3.38	BETL
C 9339 BGII	9.93	0.69	-	1.98	5.36	0.87	3.77	BETL
SS 459 BG II	7.87	1.37	-	2.13	6.32	1.00	3.74	BETL
NBC 21 BG II	7.47	0.38	-	2.10	8.35	0.42	3.74	BETL
C 9337 BGII	8.87	1.23	-	1.97	7.32	1.76	4.23	BETL
RCH 1016 BG II	5.87	0.74	-	1.93	8.32	0.29	3.43	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	II	II	-	I	-	I	II	
DC 5105 BG II	II	II	-	I	-	I	II	
NBC 2020 BG II (ZC2)	II	I	-	I	-	I	I	
KCH 9222 BG II	II	I	-	I	-	I	I	
KCH 9223 BG II	II	I	-	I	-	I	I	
RCH 1026 BG II	II	I	-	I	-	I	I	
GSCH-32 Bt II	II	I	-	I	-	I	I	
US 717 BG II	II	I	-	I	-	I	I	
KCH 9225 BG II	II	I	-	I	-	I	I	
KCH 9221 BG II	II	I	-	I	-	I	I	
ACH 151-2 BGII	II	I	-	I	-	I	I	
C 9339 BGII	II	I	-	I	-	I	I	
SS 459 BG II	II	II	-	II	-	I	II	
NBC 21 BG II	II	I	-	I	-	I	I	
C 9337 BGII	II	II	-	I	-	I	II	
RCH 1016 BG II	II	I	-	I	-	I	I	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	11.47	3.63	-	13.17	-	0.00	7.07	BETL
DC 5105 BG II	8.63	2.61	-	12.17	-	0.00	5.85	BETL
NBC 2020 BG II (ZC2)	8.73	2.03	-	11.90	-	0.00	5.67	BETL
KCH 9222 BG II	9.10	1.27	-	11.80	-	0.02	5.55	BETL
KCH 9223 BG II	10.83	1.81	-	11.87	-	0.00	6.13	BETL
RCH 1026 BG II	12.57	1.04	-	10.17	-	0.00	5.94	BETL
GSCH-32 Bt II	8.33	1.58	-	10.57	-	0.00	5.12	BETL
US 717 BG II	11.70	1.18	-	12.33	-	0.00	6.30	BETL
KCH 9225 BG II	10.33	0.91	-	8.60	-	0.00	4.96	BETL
KCH 9221 BG II	9.47	1.28	-	10.53	-	0.00	5.32	BETL
ACH 151-2 BGII	11.10	1.55	-	11.80	-	0.00	6.11	BETL
C 9339 BGII	12.80	1.75	-	10.10	-	0.00	6.16	BETL
SS 459 BG II	8.50	2.83	-	10.63	-	0.00	5.49	BETL
NBC 21 BG II	9.83	1.08	-	10.43	-	0.00	5.34	BETL
C 9337 BGII	12.17	2.52	-	11.30	-	0.00	6.50	BETL
RCH 1016 BG II	10.10	1.86	-	11.53	-	0.00	5.87	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	8.27	2.33	-	1.33	13.36	0.20	5.10	BETL
DC 5105 BG II	9.80	1.75	-	1.13	15.32	0.53	5.71	BETL
NBC 2020 BG II (ZC2)	9.00	1.27	-	1.43	9.36	0.44	4.30	BETL
KCH 9222 BG II	7.87	0.51	-	1.30	15.20	0.62	5.10	BETL
KCH 9223 BG II	6.13	1.09	-	1.47	10.32	0.87	3.98	BETL
RCH 1026 BG II	6.47	0.33	-	1.27	9.36	0.47	3.58	BETL
GSCH-32 Bt II	6.67	0.77	-	1.27	12.32	0.56	4.32	BETL
US 717 BG II	9.47	0.42	-	1.33	14.32	0.71	5.25	BETL
KCH 9225 BG II	8.87	0.21	-	1.33	9.36	0.42	4.04	BETL
KCH 9221 BG II	7.43	0.54	-	1.33	4.65	1.13	3.02	BETL
ACH 151-2 BGII	7.03	0.70	-	1.33	8.32	0.96	3.67	BETL
C 9339 BGII	5.90	0.93	-	1.10	9.36	0.60	3.58	BETL
SS 459 BG II	7.20	1.84	-	1.20	11.32	0.93	4.50	BETL
NBC 21 BG II	8.67	0.32	-	1.17	13.20	0.49	4.77	BETL
C 9337 BGII	9.30	1.60	-	1.33	15.32	0.38	5.59	BETL
RCH 1016 BG II	8.53	1.04	-	1.03	8.32	0.38	3.86	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	2.18	-	1.57	-	0.84	1.15	
DC 5105 BG II	0.00	1.77	-	1.80	-	0.56	1.03	
NBC 2020 BG II (ZC2)	0.00	2.03	-	1.53	-	0.44	1.00	
KCH 9222 BG II	0.00	1.97	-	1.40	-	0.84	1.05	
KCH 9223 BG II	0.00	2.24	-	1.37	-	0.44	1.01	
RCH 1026 BG II	0.00	2.10	-	1.57	-	0.22	0.97	
GSCH-32 Bt II	0.00	2.24	-	1.60	-	0.56	1.10	
US 717 BG II	0.00	1.76	-	1.67	-	0.71	1.03	
KCH 9225 BG II	0.00	2.13	-	1.70	-	0.27	1.02	
KCH 9221 BG II	0.00	2.01	-	1.70	-	0.40	1.03	
ACH 151-2 BGII	0.00	1.74	-	1.80	-	0.69	1.06	
C 9339 BGII	0.00	2.06	-	1.83	-	0.84	1.18	
SS 459 BG II	0.00	2.33	-	1.70	-	0.71	1.19	
NBC 21 BG II	0.00	2.08	-	1.60	-	0.09	0.94	
C 9337 BGII	0.00	2.42	-	1.53	-	0.80	1.19	
RCH 1016 BG II	0.00	1.59	-	1.73	-	0.64	0.99	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions– Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./ 5 plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./ 5 plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	4.90	2.17	-	3.17	10.23	0.22	4.14	AETL
DC 5105 BG II	2.40	2.00	-	3.83	9.78	0.00	3.60	AETL
NBC 2020 BG II (ZC2)	4.70	1.83	-	2.67	5.26	0.89	3.07	AETL
KCH 9222 BG II	3.60	0.33	-	3.33	5.88	0.89	2.81	AETL
KCH 9223 BG II	3.90	1.17	-	3.50	9.25	0.00	3.56	AETL
RCH 1026 BG II	2.20	0.17	-	3.67	12.36	0.89	3.86	AETL
GSCH-32 Bt II	2.60	0.67	-	4.00	15.28	0.00	4.51	AETL
US 717 BG II	3.30	0.33	-	2.33	12.23	0.00	3.64	AETL
KCH 9225 BG II	2.60	0.17	-	2.33	14.20	0.00	3.86	AETL
KCH 9221 BG II	2.80	0.17	-	2.83	10.21	0.00	3.20	AETL
ACH 151-2 BGII	5.30	0.50	-	3.50	10.36	0.00	3.93	AETL
C 9339 BGII	4.20	1.17	-	2.33	11.36	0.00	3.81	AETL
SS 459 BG II	4.10	2.00	-	2.50	9.25	0.00	3.57	AETL
NBC 21 BG II	5.45	0.17	-	2.17	15.35	0.00	4.63	AETL
C 9337 BGII	4.40	1.83	-	3.17	17.58	0.00	5.40	AETL
RCH 1016 BG II	3.00	1.17	-	3.17	9.69	0.00	3.41	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * data based on 20 green bolls,

Data based on 2 obseravtions

Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	11.27	21.67	-	18.33	-	0.00	12.82	AETL
DC 5105 BG II	6.75	20.00	-	23.33	-	0.00	12.52	AETL
NBC 2020 BG II (ZC2)	11.07	18.33	-	18.33	-	8.89	14.15	AETL
KCH 9222 BG II	8.95	3.33	-	18.33	-	6.67	9.32	BETL
KCH 9223 BG II	9.47	11.67	-	20.00	-	2.22	10.84	AETL
RCH 1026 BG II	6.49	3.17	-	18.33	-	8.89	9.22	BETL
GSCH-32 Bt II	7.06	6.67	-	18.33	-	0.00	8.02	BETL
US 717 BG II	8.68	3.33	-	20.00	-	0.00	8.00	BETL
KCH 9225 BG II	7.58	3.33	-	21.67	-	0.00	8.14	BETL
KCH 9221 BG II	7.87	1.67	-	8.33	-	0.00	4.47	BETL
ACH 151-2 BGII	11.71	5.00	-	16.67	-	0.00	8.34	BETL
C 9339 BGII	10.18	11.67	-	15.00	-	0.00	9.21	BETL
SS 459 BG II	9.82	20.00	-	20.00	-	0.00	12.45	AETL
NBC 21 BG II	12.39	3.33	-	13.33	-	0.00	7.26	BETL
C 9337 BGII	10.58	18.33	-	15.00	-	0.00	10.98	AETL
RCH 1016 BG II	8.23	11.67	-	21.67	-	0.00	10.39	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given, # Data based on 2 obseravtions

Table: Advanced H X H trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	15.19	55.00	-	6.37	-	20.00	24.14	
DC 5105 BG II	9.34	45.00	-	8.28	-	44.83	26.86	
NBC 2020 BG II (ZC2)	14.92	40.00	-	14.09	-	40.21	27.30	
KCH 9222 BG II	11.48	30.00	-	8.42	-	19.85	17.44	
KCH 9223 BG II	12.21	40.00	-	9.59	-	34.55	24.09	
RCH 1026 BG II	9.02	11.67	-	13.09	-	19.85	13.41	
GSCH-32 Bt II	9.64	35.00	-	12.36	-	50.59	26.90	
US 717 BG II	10.78	25.00	-	14.34	-	33.33	20.86	
KCH 9225 BG II	9.82	10.00	-	14.28	-	39.34	18.36	
KCH 9221 BG II	10.25	30.00	-	8.21	-	45.93	23.60	
ACH 151-2 BGII	15.67	35.00	-	11.58	-	44.46	26.68	
C 9339 BGII	13.76	40.00	-	10.57	-	33.33	24.42	
SS 459 BG II	12.78	50.00	-	12.12	-	28.95	25.96	
NBC 21 BG II	16.11	20.00	-	11.73	-	31.33	19.79	
C 9337 BGII	14.15	45.00	-	11.79	-	31.70	25.66	
RCH 1016 BG II	10.68	40.00	-	9.52	-	48.80	27.25	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	9.55	11.67	-	2.76	-	8.93	8.23	
DC 5105 BG II	4.85	9.67	-	3.63	-	15.07	8.31	
NBC 2020 BG II (ZC2)	9.26	8.67	-	4.03	-	15.86	9.46	
KCH 9222 BG II	7.21	6.67	-	2.84	-	6.96	5.92	
KCH 9223 BG II	7.62	8.67	-	3.65	-	13.03	8.24	
RCH 1026 BG II	4.40	3.67	-	4.46	-	6.62	4.79	
GSCH-32 Bt II	5.18	7.67	-	4.00	-	15.29	8.03	
US 717 BG II	6.62	5.67	-	5.86	-	10.63	7.19	
KCH 9225 BG II	5.50	4.67	-	5.39	-	14.66	7.56	
KCH 9221 BG II	5.95	6.67	-	3.40	-	19.65	8.92	
ACH 151-2 BGII	9.80	7.67	-	4.11	-	21.51	10.77	
C 9339 BGII	8.38	8.67	-	3.54	-	12.99	8.40	
SS 459 BG II	7.79	10.67	-	5.53	-	9.97	8.49	
NBC 21 BG II	10.44	5.33	-	4.01	-	12.32	8.02	
C 9337 BGII	8.81	9.67	-	3.72	-	12.51	8.68	
RCH 1016 BG II	6.32	8.67	-	4.10	-	20.35	9.86	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions– No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PRCH 2799 Bt2 (ZC1)	7.00	3.00	-	5.00	-	3.00	4.50	
DC 5105 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
NBC 2020 BG II (ZC2)	7.00	3.00	-	5.00	-	3.00	4.50	
KCH 9222 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
KCH 9223 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
RCH 1026 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
GSCH-32 Bt II	7.00	3.00	-	5.00	-	3.00	4.50	
US 717 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
KCH 9225 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
KCH 9221 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
ACH 151-2 BGII	7.00	3.00	-	5.00	-	3.00	4.50	
C 9339 BGII	7.00	3.00	-	5.00	-	3.00	4.50	
SS 459 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
NBC 21 BG II	7.00	3.00	-	5.00	-	3.00	4.50	
C 9337 BGII	7.00	3.00	-	5.00	-	3.00	4.50	
RCH 1016 BG II	7.00	3.00	-	5.00	-	3.00	4.50	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given



Reaction to Diseases

Table 3(a): Advanced Evaluation Trial-II of Intra-Hirsutum Hybrids Irrigated (AET-II Hybrids IRR) under Protected condition

Code-I		Entries	Average PDI & Disease Reaction (DR): Protected condition																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6		PRCH 2799 Bt2 (ZC1)	18.8	R	0.0	DF	29.7	MR	24.8	R	22.2	R	0.0	DF	0.0	DF	11.6	R	4.3	R	7.8	R	0.0	DF
10		DC 5105 BG II	15.7	R	0.0	DF	20.2	R	33.3	MR	20.0	R	0.0	DF	0.0	DF	6.6	R	7.5	R	10.7	R	0.0	DF
14		NBC 2020 BG II (ZC2)	24.2	R	0.3	R	27.5	MR	27.0	R	8.9	R	0.0	DF	0.0	DF	9.2	R	8.2	R	8.1	R	0.0	DF
16		KCH 9222 BG II	26.8	MR	1.2	R	27.3	MR	30.5	MR	17.8	R	0.0	DF	0.0	DF	5.8	R	7.4	R	10.3	R	0.0	DF
1		KCH 9223 BG II	20.2	R	0.0	DF	32.0	MR	32.3	MR	8.9	R	0.0	DF	0.0	DF	8.3	R	10.5	R	12.5	R	0.0	DF
7		RCH 1026 BG II	13.3	R	0.3	R	25.8	MR	26.8	MR	17.8	R	0.0	DF	0.0	DF	8.5	R	5.2	R	9.2	R	0.0	DF
11		GSCH-32 Bt II	14.0	R	0.0	DF	18.2	R	26.7	MR	22.2	R	0.0	DF	0.0	DF	11.1	R	8.5	R	5.8	R	0.0	DF
15		US 717 BG II	22.7	R	0.0	DF	18.7	R	29.0	MR	26.7	MR	0.0	DF	0.0	DF	7.5	R	11.3	R	1.3	R	0.0	DF
2		KCH 9225 BG II	16.2	R	0.0	DF	17.2	R	26.5	MR	31.1	MR	0.0	DF	0.0	DF	12.6	R	9.3	R	9.1	R	0.0	DF
8		KCH 9221 BG II	20.3	R	0.0	DF	15.8	R	31.5	MR	15.6	R	0.0	DF	0.0	DF	8.2	R	10.2	R	11.7	R	0.0	DF
12		ACH 151-2 BGII	26.5	MR	0.0	DF	13.7	R	26.5	MR	13.3	R	0.0	DF	0.0	DF	17.0	R	6.7	R	4.6	R	0.0	DF
3		C 9339 BGII	15.0	R	0.3	R	15.2	R	28.5	MR	20.0	R	0.0	DF	0.0	DF	11.7	R	11.3	R	13.8	R	0.0	DF
13		SS 459 BG II	18.0	R	0.0	DF	12.5	R	27.8	MR	22.2	R	0.0	DF	0.0	DF	6.3	R	4.2	R	7.8	R	0.0	DF
4		NBC 21 BG II	16.0	R	0.0	DF	13.0	R	28.7	MR	11.1	R	0.0	DF	0.0	DF	3.2	R	8.2	R	6.3	R	0.0	DF
9		C 9337 BGII	17.2	R	0.0	DF	11.3	R	26.8	MR	11.1	R	0.0	DF	0.0	DF	11.4	R	6.2	R	8.2	R	0.0	DF
5		RCH 1016 BG II	13.5	R	0.0	DF	20.0	R	28.7	MR	15.6	R	0.0	DF	0.0	DF	5.8	R	10.2	R	9.5	R	0.0	DF



Table 3(b): Advanced Evaluation Trial-II of Intra-Hirsutum Hybrids Irrigated (AET-II Hybrids IRR) under Protected condition.

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected condition							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52061	PRCH 2799 Bt2 (ZC1)	12.5	R	12.5	R	45.0	MR	0.0	DF
10	52062	DC 5105 BG II	12.5	R	7.5	R	42.5	MR	2.5	R
14	52063	NBC 2020 BG II (ZC2)	57.5	MS	17.5	R	72.5	MS	2.5	R
16	52064	KCH 9222 BG II	35.0	MR	32.5	MR	37.5	MR	0.0	DF
1	52065	KCH 9223 BG II	32.5	MR	40.0	MR	15.0	R	7.5	R
7	52066	RCH 1026 BG II	32.5	MR	27.5	MR	35.0	MR	0.0	DF
11	52067	GSCH-32 Bt II	30.0	MR	30.0	MR	37.5	MR	12.5	R
15	52068	US 717 BG II	27.5	MR	27.5	MR	22.5	R	7.5	R
2	52069	KCH 9225 BG II	42.5	MR	27.5	MR	35.0	MR	7.5	R
8	52070	KCH 9221 BG II	25.0	R	10.0	R	72.5	S	0.0	DF
12	52071	ACH 151-2 BGII	70.0	MS	55.0	MS	75.0	S	0.0	DF
3	52072	C 9339 BGII	42.5	MR	30.0	MR	42.5	MR	7.5	R
13	52073	SS 459 BG II	17.5	R	12.5	R	62.5	MS	5.0	R
4	52074	NBC 21 BG II	12.5	R	17.5	R	52.5	MS	2.5	R
9	52075	C 9337 BGII	40.0	MR	35.0	MR	30.0	MR	5.0	R
5	52076	RCH 1016 BG II	45.0	MR	42.5	MR	30.0	MR	7.5	R



Evaluation under Unprotected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	9.10	2.38	-	18.17	-	11.71	10.34	AETL
DC 5105 BG II	8.83	2.33	-	15.90	-	9.42	9.12	BETL
NBC 2020 BG II (ZC2)	10.50	1.89	-	14.67	-	1.78	7.21	BETL
KCH 9222 BG II	7.57	1.05	-	14.53	-	0.67	5.95	BETL
KCH 9223 BG II	9.57	1.63	-	14.60	-	0.47	6.57	BETL
RCH 1026 BG II	8.57	0.88	-	14.10	-	6.67	7.55	BETL
GSCH-32 Bt II	6.70	1.27	-	14.87	-	24.62	11.86	AETL
US 717 BG II	8.23	1.05	-	14.30	-	22.22	11.45	AETL
KCH 9225 BG II	9.97	0.80	-	14.03	-	0.13	6.23	BETL
KCH 9221 BG II	7.33	1.31	-	13.63	-	1.60	5.97	BETL
ACH 151-2 BGII	7.03	1.18	-	14.37	-	1.47	6.01	BETL
C 9339 BGII	8.03	1.56	-	14.17	-	2.62	6.60	BETL
SS 459 BG II	9.37	2.20	-	13.47	-	1.00	6.51	BETL
NBC 21 BG II	7.77	0.85	-	13.17	-	0.40	5.55	BETL
C 9337 BGII	10.23	1.96	-	13.67	-	0.00	6.47	BETL
RCH 1016 BG II	9.77	1.54	-	13.33	-	20.20	11.21	AETL

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	9.33	1.73	-	3.57	-	2.47	4.27	BETL
DC 5105 BG II	7.73	1.67	-	3.30	-	2.69	3.85	BETL
NBC 2020 BG II (ZC2)	9.87	1.45	-	3.97	-	3.60	4.72	BETL
KCH 9222 BG II	7.80	0.76	-	3.27	-	0.95	3.19	BETL
KCH 9223 BG II	7.40	1.33	-	3.60	-	2.60	3.73	BETL
RCH 1026 BG II	6.73	0.67	-	3.47	-	0.80	2.92	BETL
GSCH-32 Bt II	7.00	0.91	-	3.07	-	1.78	3.19	BETL
US 717 BG II	10.20	0.66	-	3.10	-	1.84	3.95	BETL
KCH 9225 BG II	8.20	0.68	-	3.50	-	5.02	4.35	BETL
KCH 9221 BG II	8.67	0.73	-	3.30	-	2.09	3.70	BETL
ACH 151-2 BGII	9.00	0.84	-	3.73	-	1.49	3.77	BETL
C 9339 BGII	10.47	1.02	-	3.13	-	2.91	4.38	BETL
SS 459 BG II	8.40	1.70	-	3.77	-	3.20	4.27	BETL
NBC 21 BG II	8.00	0.72	-	3.20	-	1.76	3.42	BETL
C 9337 BGII	9.40	1.56	-	3.50	-	2.96	4.35	BETL
RCH 1016 BG II	6.47	1.07	-	3.33	-	1.13	3.00	BETL

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	II	III	-	I	-	I	II	
DC 5105 BG II	II	III	-	I	-	I	II	
NBC 2020 BG II (ZC2)	II	III	-	I	-	I	II	
KCH 9222 BG II	II	II	-	I	-	I	II	
KCH 9223 BG II	II	III	-	I	-	I	II	
RCH 1026 BG II	II	II	-	I	-	I	II	
GSCH-32 Bt II	II	II	-	I	-	I	II	
US 717 BG II	III	II	-	I	-	I	II	
KCH 9225 BG II	II	I	-	I	-	I	II	
KCH 9221 BG II	II	II	-	I	-	I	II	
ACH 151-2 BGII	II	II	-	I	-	I	II	
C 9339 BGII	III	II	-	I	-	I	II	
SS 459 BG II	II	III	-	II	-	I	II	
NBC 21 BG II	II	II	-	I	-	I	II	
C 9337 BGII	II	III	-	I	-	I	II	
RCH 1016 BG II	II	II	-	I	-	I	II	

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	12.00	4.00	-	16.27	-	0.00	8.07	BETL
DC 5105 BG II	9.20	2.97	-	15.30	-	0.00	6.87	BETL
NBC 2020 BG II (ZC2)	9.33	2.29	-	15.10	-	0.00	6.68	BETL
KCH 9222 BG II	9.67	1.61	-	15.00	-	0.02	6.57	BETL
KCH 9223 BG II	11.40	2.15	-	14.90	-	0.00	7.11	BETL
RCH 1026 BG II	13.13	1.32	-	13.33	-	0.00	6.95	BETL
GSCH-32 Bt II	8.90	1.91	-	13.60	-	0.00	6.10	BETL
US 717 BG II	12.27	1.48	-	15.53	-	0.00	7.32	BETL
KCH 9225 BG II	10.93	1.18	-	12.37	-	0.00	6.12	BETL
KCH 9221 BG II	10.07	1.61	-	13.70	-	0.00	6.34	BETL
ACH 151-2 BGII	11.67	1.83	-	14.97	-	0.00	7.12	BETL
C 9339 BGII	13.37	2.04	-	13.27	-	0.00	7.17	BETL
SS 459 BG II	9.07	3.16	-	13.80	-	0.00	6.51	BETL
NBC 21 BG II	10.40	1.40	-	14.13	-	0.00	6.48	BETL
C 9337 BGII	12.73	2.85	-	14.40	-	0.00	7.50	BETL
RCH 1016 BG II	10.70	2.10	-	14.50	-	0.00	6.83	BETL

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	8.63	3.17	-	2.33	-	0.26	3.60	BETL
DC 5105 BG II	10.17	2.59	-	2.03	-	0.53	3.83	BETL
NBC 2020 BG II (ZC2)	9.37	2.11	-	2.53	-	0.53	3.64	BETL
KCH 9222 BG II	8.23	1.36	-	2.27	-	0.78	3.16	BETL
KCH 9223 BG II	6.50	1.94	-	2.30	-	0.47	2.80	BETL
RCH 1026 BG II	6.90	1.17	-	2.53	-	0.53	2.78	BETL
GSCH-32 Bt II	7.03	1.61	-	2.03	-	0.38	2.76	BETL
US 717 BG II	9.83	1.27	-	2.27	-	1.17	3.63	BETL
KCH 9225 BG II	9.30	1.02	-	2.10	-	0.33	3.19	BETL
KCH 9221 BG II	7.83	1.39	-	2.03	-	0.73	3.00	BETL
ACH 151-2 BGII	7.43	1.54	-	2.47	-	0.56	3.00	BETL
C 9339 BGII	6.30	1.78	-	1.83	-	0.42	2.58	BETL
SS 459 BG II	7.57	2.68	-	2.20	-	0.89	3.33	BETL
NBC 21 BG II	9.03	1.16	-	2.33	-	0.58	3.28	BETL
C 9337 BGII	9.70	2.44	-	2.33	-	0.44	3.73	BETL
RCH 1016 BG II	8.90	1.88	-	2.27	-	0.36	3.35	BETL

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	3.18	-	2.43	-	0.71	1.58	
DC 5105 BG II	0.00	2.77	-	2.77	-	0.56	1.52	
NBC 2020 BG II (ZC2)	0.00	3.03	-	2.57	-	0.51	1.53	
KCH 9222 BG II	0.00	2.96	-	2.57	-	0.87	1.60	
KCH 9223 BG II	0.00	3.23	-	2.73	-	0.31	1.57	
RCH 1026 BG II	0.00	3.10	-	2.63	-	0.29	1.51	
GSCH-32 Bt II	0.00	3.24	-	2.67	-	0.62	1.63	
US 717 BG II	0.00	2.76	-	2.87	-	0.64	1.57	
KCH 9225 BG II	0.00	3.13	-	2.93	-	0.36	1.60	
KCH 9221 BG II	0.00	3.01	-	2.57	-	0.40	1.49	
ACH 151-2 BGII	0.00	2.74	-	3.07	-	0.71	1.63	
C 9339 BGII	0.00	3.07	-	2.83	-	0.89	1.70	
SS 459 BG II	0.00	3.32	-	2.83	-	0.78	1.73	
NBC 21 BG II	0.00	3.08	-	2.50	-	0.09	1.42	
C 9337 BGII	0.00	3.42	-	2.77	-	0.62	1.70	
RCH 1016 BG II	0.00	2.59	-	2.80	-	0.67	1.51	

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions– Spotted/ Spiny Bollworms

Name of Entry	Spotted Bollworms (No./ 5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./ 5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	5.20	3.50	-	3.67	-	0.11	3.12	AETL
DC 5105 BG II	2.70	3.33	-	4.17	-	0.00	2.55	AETL
NBC 2020 BG II (ZC2)	5.00	3.17	-	3.00	-	0.78	2.99	AETL
KCH 9222 BG II	3.90	1.67	-	3.67	-	0.89	2.53	AETL
KCH 9223 BG II	4.20	2.50	-	3.83	-	0.00	2.63	AETL
RCH 1026 BG II	2.50	1.50	-	4.00	-	0.67	2.17	AETL
GSCH-32 Bt II	2.90	2.00	-	4.33	-	0.00	2.31	AETL
US 717 BG II	3.60	1.67	-	2.67	-	0.00	1.98	AETL
KCH 9225 BG II	2.90	1.50	-	2.67	-	0.00	1.77	AETL
KCH 9221 BG II	3.10	1.50	-	3.17	-	0.00	1.94	AETL
ACH 151-2 BGII	5.60	1.83	-	3.83	-	0.00	2.82	AETL
C 9339 BGII	4.50	2.50	-	2.50	-	0.00	2.38	AETL
SS 459 BG II	4.40	3.33	-	2.67	-	0.00	2.60	AETL
NBC 21 BG II	5.80	1.50	-	2.17	-	0.00	2.37	AETL
C 9337 BGII	4.70	3.17	-	3.50	-	0.00	2.84	AETL
RCH 1016 BG II	3.30	2.50	-	3.83	-	0.00	2.41	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
DC 5105 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9222 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9223 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1026 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
GSCH-32 Bt II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
US 717 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9225 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
KCH 9221 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
ACH 151-2 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9339 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
SS 459 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
NBC 21 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL
C 9337 BGII	0.00	0.00	-	0.00	-	0.00	0.00	BETL
RCH 1016 BG II	0.00	0.00	-	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	11.63	22.17	-	28.33	-	0.00	15.53	AETL
DC 5105 BG II	7.13	20.50	-	28.33	-	0.00	13.99	AETL
NBC 2020 BG II (ZC2)	11.43	18.83	-	23.33	-	11.11	16.18	AETL
KCH 9222 BG II	9.32	10.33	-	25.00	-	11.11	13.94	AETL
KCH 9223 BG II	9.83	18.67	-	31.67	-	4.44	16.15	AETL
RCH 1026 BG II	6.87	10.17	-	21.67	-	4.44	10.79	AETL
GSCH-32 Bt II	7.44	15.33	-	28.33	-	0.00	12.78	AETL
US 717 BG II	9.06	10.33	-	31.67	-	0.00	12.76	AETL
KCH 9225 BG II	7.94	10.33	-	28.33	-	0.00	11.65	AETL
KCH 9221 BG II	8.25	8.67	-	26.67	-	0.00	10.90	AETL
ACH 151-2 BGII	12.07	12.00	-	20.00	-	0.00	11.02	AETL
C 9339 BGII	10.54	19.00	-	25.00	-	0.00	13.64	AETL
SS 459 BG II	10.18	22.33	-	20.00	-	0.00	13.13	AETL
NBC 21 BG II	12.75	10.50	-	23.33	-	0.00	11.65	AETL
C 9337 BGII	10.94	19.00	-	21.67	-	0.00	12.90	AETL
RCH 1016 BG II	8.60	20.50	-	25.00	-	0.00	13.53	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	15.55	58.33	-	11.84	-	17.64	25.84	
DC 5105 BG II	9.72	48.33	-	12.39	-	40.48	27.73	
NBC 2020 BG II (ZC2)	15.29	43.33	-	17.87	-	36.80	28.32	
KCH 9222 BG II	11.86	33.33	-	10.67	-	5.08	15.24	
KCH 9223 BG II	12.57	43.33	-	12.31	-	31.32	24.88	
RCH 1026 BG II	9.43	15.00	-	16.04	-	17.99	14.61	
GSCH-32 Bt II	10.01	38.33	-	15.15	-	46.25	27.43	
US 717 BG II	11.19	28.33	-	18.31	-	30.66	22.12	
KCH 9225 BG II	10.23	13.33	-	19.09	-	35.59	19.56	
KCH 9221 BG II	10.64	33.33	-	11.25	-	42.13	24.34	
ACH 151-2 BGII	16.04	38.33	-	14.35	-	40.09	27.20	
C 9339 BGII	14.13	43.33	-	14.35	-	30.66	25.62	
SS 459 BG II	13.14	53.33	-	18.15	-	26.02	27.66	
NBC 21 BG II	16.48	23.33	-	16.42	-	28.88	21.28	
C 9337 BGII	14.51	48.33	-	14.79	-	29.15	26.70	
RCH 1016 BG II	11.09	43.33	-	12.89	-	44.07	27.84	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	9.90	12.33	-	4.07	-	7.40	8.43	
DC 5105 BG II	5.20	10.33	-	4.82	-	12.95	8.33	
NBC 2020 BG II (ZC2)	9.61	9.33	-	5.22	-	12.97	9.28	
KCH 9222 BG II	7.56	7.33	-	3.62	-	0.00	4.63	
KCH 9223 BG II	7.97	9.33	-	4.78	-	10.33	8.10	
RCH 1026 BG II	4.77	4.33	-	5.78	-	5.56	5.11	
GSCH-32 Bt II	5.53	8.33	-	5.54	-	12.76	8.04	
US 717 BG II	6.97	6.33	-	6.93	-	8.58	7.20	
KCH 9225 BG II	5.88	5.33	-	6.81	-	11.95	7.49	
KCH 9221 BG II	6.31	7.33	-	3.87	-	23.30	10.20	
ACH 151-2 BGII	10.14	8.33	-	4.81	-	17.86	10.28	
C 9339 BGII	8.73	9.33	-	4.39	-	10.53	8.24	
SS 459 BG II	8.14	11.33	-	6.51	-	8.31	8.57	
NBC 21 BG II	10.78	6.00	-	5.34	-	11.03	8.29	
C 9337 BGII	9.16	10.33	-	4.67	-	10.48	8.66	
RCH 1016 BG II	6.69	9.33	-	4.91	-	17.32	9.56	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 3(c): Advanced Evaluation Trial-II of Intra-Hirsutum Hybrids Irrigated (AET-II Hybrids IRR) under Unprotected condition.

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected condition							
			Kaveri, Aurangabad							
			ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52061	PRCH 2799 Bt2 (ZC1)	20.4	R	18.6	R	12.9	R	11.1	R
10	52062	DC 5105 BG II	17.0	R	11.4	R	10.6	R	9.0	R
14	52063	NBC 2020 BG II (ZC2)	16.4	R	11.1	R	9.5	R	6.0	R
16	52064	KCH 9222 BG II	6.9	R	5.8	R	4.2	R	3.0	R
1	52065	KCH 9223 BG II	9.0	R	8.5	R	8.0	R	1.7	R
7	52066	RCH 1026 BG II	27.4	MR	19.9	R	8.5	R	10.7	R
11	52067	GSCH-32 Bt II	12.2	R	13.3	R	11.7	R	6.4	R
15	52068	US 717 BG II	19.6	R	19.2	R	12.7	R	5.5	R
2	52069	KCH 9225 BG II	9.5	R	7.4	R	6.9	R	3.0	R
8	52070	KCH 9221 BG II	7.4	R	6.5	R	4.8	R	3.4	R
12	52071	ACH 151-2 BGII	16.9	R	18.0	R	9.5	R	6.2	R
3	52072	C 9339 BGII	18.1	R	26.2	MR	10.1	R	11.6	R
13	52073	SS 459 BG II	25.4	MR	12.2	R	9.0	R	5.5	R
4	52074	NBC 21 BG II	13.1	R	12.2	R	11.1	R	10.7	R
9	52075	C 9337 BGII	14.3	R	13.3	R	9.5	R	6.8	R
5	52076	RCH 1016 BG II	17.4	R	15.4	R	8.0	R	5.3	R



Table 3(d): Advanced Evaluation Trial-II of Intra-Hirsutum Hybrids Irrigated (AET-II Hybrids IRR) under Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected condition																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		Internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	52061	PRCH 2799 Bt2 (ZC1)	20.0	R	8.0	R	30.5	MR	27.0	MR	13.3	R	0.0	DF	0.0	DF	32.2	MR	6.8	R	9.1	R	0.0	DF
10	52062	DC 5105 BG II	19.5	R	9.5	R	21.0	R	25.5	MR	20.0	R	0.0	DF	0.0	DF	9.4	R	9.0	R	12.5	R	0.0	DF
14	52063	NBC 2020 BG II (ZC2)	25.0	R	9.0	R	28.5	MR	26.0	MR	20.0	R	0.0	DF	0.0	DF	13.5	R	9.8	R	11.9	R	0.0	DF
16	52064	KCH 9222 BG II	27.0	R	8.0	R	29.0	MR	29.5	MR	26.7	MR	0.0	DF	0.0	DF	7.7	R	9.6	R	12.1	R	0.0	DF
1	52065	KCH 9223 BG II	21.5	R	7.0	R	35.0	MR	26.0	MR	13.3	R	0.0	DF	0.0	DF	10.2	R	13.0	R	28.0	MR	0.0	DF
7	52066	RCH 1026 BG II	19.5	R	5.5	R	28.0	MR	30.5	MR	20.0	R	0.0	DF	0.0	DF	10.0	R	7.6	R	11.1	R	0.0	DF
11	52067	GSCH-32 Bt II	21.0	R	8.0	R	19.5	R	32.0	MR	13.3	R	0.0	DF	0.0	DF	24.6	R	11.0	R	7.7	R	0.0	DF
15	52068	US 717 BG II	25.5	R	8.0	R	26.0	MR	28.5	MR	6.7	R	0.0	DF	0.0	DF	9.4	R	26.8	MR	4.5	R	0.0	DF
2	52069	KCH 9225 BG II	21.5	R	8.0	R	23.0	R	20.0	R	20.0	R	0.0	DF	0.0	DF	27.3	MR	11.9	R	11.1	R	0.0	DF
8	52070	KCH 9221 BG II	21.5	R	8.0	R	16.5	R	18.0	R	13.3	R	0.0	DF	0.0	DF	10.7	R	28.0	MR	13.1	R	0.0	DF
12	52071	ACH 151-2 BGII	29.5	MR	7.5	R	17.0	R	38.0	MR	20.0	R	0.0	DF	0.0	DF	30.0	MR	8.9	R	6.6	R	0.0	DF
3	52072	C 9339 BGII	17.0	R	8.5	R	27.5	MR	17.5	R	13.3	R	0.0	DF	0.0	DF	13.5	R	14.7	R	27.1	MR	0.0	DF
13	52073	SS 459 BG II	19.5	R	7.0	R	19.0	R	15.5	R	20.0	R	0.0	DF	0.0	DF	9.6	R	5.9	R	9.5	R	0.0	DF
4	52074	NBC 21 BG II	20.5	R	7.5	R	28.5	MR	28.0	MR	6.7	R	0.0	DF	0.0	DF	5.3	R	10.1	R	8.6	R	0.0	DF
9	52075	C 9337 BGII	20.5	R	8.0	R	23.5	R	8.5	R	13.3	R	0.0	DF	0.0	DF	25.7	MR	8.4	R	10.8	R	0.0	DF
5	52076	RCH 1016 BG II	20.5	R	7.0	R	22.0	R	18.0	R	20.0	R	0.0	DF	0.0	DF	7.9	R	13.0	R	12.0	R	0.0	DF



Table 3(e): Advanced Evaluation Trial-II of Intra-Hirsutum Hybrids Irrigated (HxH) under Unprotected condition at Jalna

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): UnProtected condition					
			Jalna (Eldorado Agritech Ltd)					
			ALB		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR
6	52061	PRCH 2799 Bt2 (ZC1)	30.0	MR	27.0	MR	7.0	R
10	52062	DC 5105 BG II	11.0	R	7.5	R	3.0	R
14	52063	NBC 2020 BG II (ZC2)	34.5	MR	32.5	MR	3.5	R
16	52064	KCH 9222 BG II	10.0	R	9.5	R	0.0	DF
1	52065	KCH 9223 BG II	19.5	R	15.5	R	6.0	R
7	52066	RCH 1026 BG II	40.5	MR	36.5	MR	6.0	R
11	52067	GSCH-32 Bt II	30.5	MR	31.5	MR	3.5	R
15	52068	US 717 BG II	10.5	R	12.5	R	3.0	R
2	52069	KCH 9225 BG II	29.5	MR	25.5	MR	8.0	R
8	52070	KCH 9221 BG II	13.5	R	14.5	R	6.0	R
12	52071	ACH 151-2 BGII	23.5	R	34.5	MR	3.5	R
3	52072	C 9339 BGII	32.5	MR	37.5	MR	7.5	R
13	52073	SS 459 BG II	11.5	R	11.5	R	0.0	DF
4	52074	NBC 21 BG II	20.5	R	38.0	MR	0.0	DF
9	52075	C 9337 BGII	16.5	R	22.0	R	4.0	R
5	52076	RCH 1016 BG II	38.5	MR	38.5	MR	0.0	DF



Agronomic Evaluation

SURAT (C9339 BG-II)

The agronomic requirement study results found that among the spacing treatments, S₁ (120 x 30 cm) recorded significantly higher seed cotton yield (2177 kg/ha). The results by nitrogen levels found that nitrogen level N₃ 125 % RDN (300 kg N/ha) recorded significantly higher seed cotton yield (2120 kg/ha), which was at par with N₂ 100% RDN (2004 kg/ha). The interaction effect was found to be non-significant (Table 12).

Table 12. Total seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels C9339 BG-II at Surat

Treatments	S ₁ - 120 x 30 cm	S ₂ - 120 x 45 cm	S ₃ - 120 x 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75% RDN	2147	1961	1669	1925	Spacing	49	146
N ₂ - 100% RDN	2162	2008	1842	2004	Nitrogen	49	146
N ₃ - 125% RDN	2224	2051	2085	2120	S X N	84	NS
Mean (spacing)	2177	2007	1865				
Control NBC 2020 (BG-II)	2149						

Basic parameters: pH: 8.04, EC: 0.74 dS/m, OC (%): 0.53, Available N: 272 kg/ha, Available P₂O₅: 31.69 kg/ha, Available K₂O: 566 kg/ha, Recommended nutrients: 240:40:00 kg NPK/ha, Genotype: C9339 BG-II, Environment: Irrigated, Total rainfall during cropping period: 1876 mm

SURAT (NBC-21 BG-II)

The study was conducted to find out the geometry and nitrogen requirement of pre released Bt hybrid NBC-21 BG-II at Surat (Table 13) revealed that seed cotton yield was significantly influenced by spacing, nitrogen levels and their interaction. Among spacing levels, S₁ (120 x 30 cm) recorded least the highest mean seed cotton yield (2333 kg/ha), which was significantly superior to S₂ (120 x 45 cm – 2042 kg/ha) and S₃ (120 x 60 cm – 1949 kg/ha). The widest spacing (120 x 60 cm) recorded the least seed cotton yield. The effect of nitrogen levels significantly influenced seed cotton yield. Application of 125% RDN (300 kg N ha⁻¹) recorded significantly higher mean yield (2218 kg/ha), which was comparable with 100% RDN (2171 kg/ha) and significantly superior to 75% RDN (1935 kg/ha). The interaction between spacing and nitrogen levels was significant. Among the treatment combinations, S₁N₂ (120 x 30 cm + 100% RDN) recorded significantly higher seed cotton yield (2488 kg/ha).

Table.18 Total Seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels NBC-21 BG-II at Surat

Treatments	S ₁ - 120 x 30 cm	S ₂ - 120 x 45 cm	S ₃ - 120 x 60 cm	Mean (Nitrogen)	ANOV A	SE d	CD (5%)	CV (%)
N ₁ - 75% RDN	2161	1748	1896	1935	Spacin g	50	149	7.06
N ₂ - 100% RDN	2488	1994	2032	2171	Nitrog en	50	149	
N ₃ - 125% RDN	2351	2384	1918	2218	S X N	86	258	
Mean (spacing)	2333	2042	1949					
Control NBC 2020 (BG-II)	2024							

Basic parameters: pH: 8.04, EC: 0.74 dS/m, OC (%): 0.53, Available N: 272 kg/ha, Available P₂O₅: 31.69 kg/ha, Available K₂O: 566 kg/ha, Recommended nutrients: 240:40:00 kg NPK/ha, Genotype: NBC-21 BG-II, Environment: Irrigated, Total rainfall during cropping period: 1876 mm



SURAT (DC 5105 BG-II)

The agronomic requirement study was conducted to find out the geometry and nitrogen requirement of pre released Bt hybrid DC 5105 BG-II (Mahyco Bt hybrid) at Surat revealed that seed cotton yield was significantly influenced by spacing and nitrogen levels (Table 14). Among spacing levels, S₁ (120 × 30 cm) recorded significantly higher mean seed cotton yield (2379 kg/ha), which was significantly superior to S₃ (120 × 60 cm – 1978 kg/ha) and S₂ (120 × 45 cm – 2165 kg/ha). The wider spacing (120 × 60 cm) recorded the lowest yield. Nitrogen levels significantly influenced seed cotton yield. Application of 100% RDN (240 kg N ha⁻¹) recorded significantly higher mean yield (2279 kg/ha), which was comparable with 125% RDN (2243 kg/ha) and significantly superior to 75% RDN (2000 kg/ha). The interaction between spacing and nitrogen levels was non-significant, indicating that the response to nitrogen was consistent across spacing levels.

Table 14. Total seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels DC 5105 BG-II at Surat

Treatments	S ₁ - 120 x 30 cm	S ₂ - 120 x 45 cm	S ₃ - 120 x 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75% RDN	2284	1919	1798	2000	Spacing	69	206
N ₂ - 100% RDN	2511	2172	2155	2279	Nitrogen	69	206
N ₃ - 125% RDN	2343	2406	1980	2243	S X N	119	NS
Mean (spacing)	2379	2165	1978				
Control (NBC 2020 BG-II)	2123						

Basic parameters: pH: 8.04, EC: 0.74 dS/m, OC (%): 0.53, Available N: 272 kg/ha, Available P₂O₅: 31.69 kg/ha, Available K₂O: 566 kg/ha, Recommended nutrients: 240:40:00 kg NPK/ha, Genotype: DC 5105 BG-II, Environment: Irrigated, Total rainfall during cropping period: 1876 mm

Rahuri US-717 BG II

The agronomic requirement study conducted at Rahuri indicated that spacing significantly influenced total seed cotton yield of US-717 BG II (Table 32). The crop sown at 90 × 15 cm spacing recorded significantly higher total seed cotton yield of 1503 kg/ha, followed by 90 × 30 cm (1351 kg/ha) and 90 × 60 cm (1178 kg/ha). Nitrogen application significantly influenced total seed cotton yield. Application of 100% nitrogen recorded significantly higher yield of 1545 kg/ha, which remained statistically at par with 125% nitrogen (1420 kg/ha) but was superior over 75% nitrogen (1067 kg/ha). The interaction effect was non-significant.



Table 32. Total Seed cotton yield (kg/ha) US-717 BG II as influenced by spacing levels and nutrient levels at Rahuri

Treatments	S1 – 90 × 15 cm	S2 – 90 × 30 cm	S3 – 90 × 60 cm	Mean (Nitrogen)	ANOVA	SE(d)	CD (5%)	CV
N1 – 75% Nitrogen	1133	1096	972	1067	Spacing	48	190	12.10
N2 – 100% Nitrogen	1754	1531	1352	1545	Nitrogen	54	167	
N3 – 125% Nitrogen	1621	1426	1212	1420	S × N	94	NS	
Mean (Spacing)	1503	1351	1178	1344				

Basic parameters: pH: 7.49, EC: 0.22 dSm⁻¹, OC (%): 0.59, Available N: 167.55 kg/ha, Available P₂O₅: 7.97 kg/ha, Available K₂O: 630.55 kg/ha, Recommended nutrients: 125:65:65 kg NPK/ha, Genotype: US-717 BG II, Environment: Irrigated, Total rainfall during cropping period: 1031.0 mm

Junagadh (RCH 1016 BG-II)

The results of agronomic requirement studies conducted at junagadh under irrigated conditions revealed that Among the spacing levels, significantly higher seed cotton yield (5778 kg/ha) was recorded under S3 (120 × 60 cm) followed by S2 (120 × 45 cm). Significantly lowest yield (2412 kg/ha) was recorded under S1 (120 × 30 cm) (Table 33). Among the nitrogen levels, significantly higher seed cotton yield (6509 kg/ha) was recorded under N2 (100% RDN) followed by N1 (75% RDN). Significantly lowest yield (2545 kg/ha) was recorded under N3 (125% RDN). Interaction between spacing and nitrogen levels was significant. the highest seed cotton yield (9420 kg/ha) was recorded under the combination of S2 × N2 (120 × 45 cm spacing with 100% RDN), which was significantly superior to other treatment combinations.

Table 33. Seed cotton yield (kg/ha) of RCH 1016 BG-II as influenced by spacing levels and nutrient levels at Junagadh

Treatments	S1 . 120 x 30 cm	S2. 120 x 45 cm	S3. 120 x 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2291	2391	7312	3998	Spacing	60.31	127.85
N ₂ - 100 %RDN	2381	9420	7728	6509	Nitrogen	60.31	127.85
N ₃ -125 %RDN	2566	2777	2293	2545	S × N	104.46	221.44
Mean (spacing)	2412	4862	5778				

Basic parameters: pH: 7.70, EC: 0.45 dS/m, OC (%): 0.79, Available N: 302 kg/ha, Available P₂O₅: 36.66 kg/ha, Available K₂O: 330 kg/ha, Recommended nutrients: 240:50:150 kg NPK/ha, Genotype: RCH 1016 BG-II, Environment: Irrigated, Total rainfall during cropping period: 1365.70 mm



Junagadh (RCH 1026 BG-II)

The results of agronomic requirement studies conducted at Junagadh under irrigated conditions revealed that among the spacing treatments, S3 (120 × 60 cm) recorded the highest mean seed cotton yield (5278 kg/ha), followed by S2 (120 × 45 cm) (4411 kg/ha), whereas the lowest yield (2041 kg/ha) was observed under S1 (120 × 30 cm (Table 34). Regarding nitrogen levels, 100% RDN (N2) produced significantly higher yield (5901 kg/ha) compared to 75% RDN (N1) (3570 kg/ha) and 125% RDN (N3) (2260 kg/ha). The interaction effect of spacing and nitrogen was also significant. The highest seed cotton yield (8607 kg/ha) was recorded under the combination of S2 × N2 (120 × 45 cm with 100% RDN), which was significantly superior to all other treatment combinations. Conversely, the lowest yield (1920 kg/ha) was observed under S1 × N1 (120 × 30 cm with 75% RDN).

Table 34. Seed cotton yield (kg/ha) of Junagadh as influenced by spacing levels and nutrient levels at Junagadh

Treatments	S1: 120 x 30 cm	S2 :120 x 45 cm	S3:120 x 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	1920	2120	6670	3570	Spacing	60.31	127.85
N ₂ - 100 % RDN	2010	8607	7086	5901	Nitrogen	60.31	127.85
N ₃ -125 %RDN	2195	2506	2079	2260	S x N	104.46	221.44
Mean (spacing)	2041	4411	5278				

Basic parameters: pH: 7.70, EC: 0.45 dS/m, OC (%): 0.79, Available N: 302 kg/ha, Available P₂O₅: 36.66 kg/ha, Available K₂O: 330 kg/ha, Recommended spacing: 120 × 45 cm, Recommended nutrients: 240:50:150 kg NPK/ha, Genotype: RCH 1026 BG-II, Environment: Irrigated, Total rainfall during cropping period: 1365.70 mm



TALOD (KCH 9221 BG-II) AET II I

The results of agronomic requirement studies conducted at Talod under irrigated conditions revealed that spacing showed a significant effect on the seed cotton yield (Table 44) (Table 35). Among different spacings, S₁- 120 X 30 cm recorded the highest mean seed cotton yield (2674 kg/ha) and was significantly superior to S₂- 120 X 45 cm (2355 kg/ha) and S₃:- 120 X 60 cm (2228 kg/ha). The lowest mean seed cotton yield was recorded under S₃ spacing. Nitrogen levels did not exert a significant effect on yield. Although the highest mean seed cotton yield was recorded under N₃.100%RDN (2533 kg/ha) followed by N₁.75% RDN (2437 kg/ha) +MC and N₂.100% RDN (2288 kg/ha), the differences among nitrogen levels were non-significant.

Table 35. Seed cotton yield (kg/ha) of KCH 9221 BG-II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 120 X 30 cm	S2- 120 X 45 cm	S3:- 120 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% of RDN + MC	2671	2190	2449	2437	2375
N2- 100 % of RDN	2585	2322	1957	2288	2506
N3- 125% of RDN	2766	2555	2279	2533	2091
Mean (spacing)	2674	2355	2228		
ANOVA	Spacing	Nitrogen	S X N		
SE d	121.87	121.87	211.08		
CD (5%)	259.13	NS	NS		
CV	10.72				

MC- Microbial consortia as seed treatment and 25 days after sowing as soil application

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: KCH 9221 BG-II, Environment: Irrigated, Total rainfall during cropping period: 1044 mm

TALOD (KCH 9222BG-II)

The results of agronomic requirement studies conducted at Talod (Table 36) under irrigated conditions revealed that seed cotton yield varied significantly with spacing levels. Among different spacings, S₁- 120 X 30 cm recorded the highest seed cotton yield (2490 kg/ha) and was found to be significantly superior to S₂- 120 X 45 cm (2249 kg/ha) and S₃.120 X 60 cm (2038 kg/ha). The lowest mean value was observed under S₃ spacing. Seed Cotton Yield was non significantly affected with different levels of nitrogen. Although the highest mean value was recorded under N₂ .100%RDN (2303 kg/ha) followed by N₃.125%RDN (2261 kg/ha) and N₁ .75% RDN (2213 kg/ha), the differences among nitrogen levels were non-significant.



Table 36. Seed cotton yield (kg/ha) of KCH 9222BG-II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 120 X 30 cm	S2- 120 X 45 cm	S3:- 120 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% of RDN	2489	2069	2081	2213	1767
N2- 100 % of RDN	2404	2277	2228	2303	2068
N3- 125% of RDN	2578	2402	1804	2261	1646
Mean (spacing)	2490	2249	2038		
ANOVA	Spacing	Nitrogen	S X N		
SE d	122.13	122.13	211.53		
CD (5%)	259.68	NS	NS		
CV	11.5				

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: KCH 9222 BG II, Environment: Irrigated, Total rainfall during cropping period: 1044 mm

TALOD (KCH 9223 BG-II)

The results of agronomic requirement studies conducted at Talod under irrigated conditions revealed that spacing exerted a significant effect on the seed cotton yield (Table 37). Among different spacings, S₁- 120 X 30cm recorded the highest seed cotton yield (2446 kg/ha) and was found to be significantly superior to S₂- 120 X 45cm (1980 kg/ha) and S₃- 120 X 60 cm (2177 kg/ha). The lowest seed cotton yield was observed under S₂ spacing. Nitrogen levels did not show a significant effect on the yield. Although the highest seed cotton yield was observed under N₂ (2236 kg/ha) followed by N₁ (2229 kg/ha) and N₃ (2138 kg/ha), the differences among nitrogen levels were non-significant.

Table 37. Seed cotton yield (kg/ha) of KCH 9223 BG-II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 120 X 30 cm	S2- 120 X 45 cm	S3:- 120 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% of RDN	2473	1950	2266	2229	1451
N2- 100 % of RDN	2607	1944	2155	2236	1899
N3- 125% of RDN	2258	2046	2111	2138	1667
Mean (spacing)	2446	1980	2177		
ANOVA	Spacing	Nitrogen	S X N		
SE d	95.63	95.63	165.64		
CD (5%)	203.34	NS	NS		
CV	9.24				

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: KCH 9223 BG II, Environment: Irrigated, Total rainfall during cropping period: 1044 mm



TALOD (KCH 9225 BG-II)

The results of agronomic requirement studies conducted at Talod under irrigated conditions revealed that spacing had a significant effect on the characters (Table 38). S₁-120 X 30cm spacing produced the highest seed cotton yield (2550 kg/ha) and was significantly superior to S₂- 120 X 45cm (2178 kg/ha) and S₃ - 120 X 60cm (2119 kg/ha). The effect of nitrogen levels was non-significant. Although N₁.75 % RDN recorded the highest seed cotton yield (2335 kg/ha) followed by N₃ . 125%RDN (2264 kg/ha) and N₂ .100%RDN (2248 kg/ha), the differences among nitrogen treatments were statistically non-significant. The spacing × nitrogen interaction was also found to be non-significant, indicating no differential response of nitrogen levels across spacings.

Table 38. Seed cotton yield (kg/ha) of KCH 9225 BG-II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 120 X 30 cm	S2- 120 X 45 cm	S3:- 120 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% RDN	2620	2124	2259	2335	1718
N2- 100 % RDN	2562	2142	2041	2248	2042
N3- 125% RDN	2469	2268	2056	2264	1947
Mean (spacing)	2550	2178	2119		
ANOVA	Spacing	Nitrogen	S X N		
SE d	110.33	110.33	191.09		
CD (5%)	234.59	NS	NS		
CV	10.28				

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: KCH 9225 BG II, Environment: Irrigated, Total rainfall during cropping period: 1044 mm

TALOD (ACH 151-2 BG - II)

The results of agronomic requirement studies conducted at Talod under irrigated conditions revealed that spacing treatments did not differ significantly with respect to the traits studied (Table 39). Likewise, the effect of nitrogen application was statistically non-significant. Among the nitrogen levels, N₁ .75 %RDN recorded a numerically higher seed cotton yield (2349 kg/ha) compared to N₂ .100% RDN (2284 kg/ha) and N₃ .125% RDN (2272 kg/ha). The spacing × nitrogen interaction was also non-significant, indicating the absence of interaction between spacing and nitrogen levels.



Table 39. Seed cotton yield (kg/ha) of ACH 151-2 BG – II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 120 X 30 cm	S2- 120 X 45 cm	S3:- 120 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% RDN	2435	2294	2319	2349	2094
N2- 100 %RDN	2458	2271	2124	2284	1965
N3- 125%RDN	2310	2312	2194	2272	2199
Mean (spacing)	2401	2292	2212		
ANOVA	Spacing	Nitrogen	S X N		
SE d	106.36	106.36	184.22		
CD (5%)	NS	NS	NS		
CV	9.83				

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: ACH 151-2 BGII, Environment: Irrigated, Total rainfall during cropping period: 1044 mm

TALOD (SS 459 BG-II)

The results of agronomic requirement studies conducted at Talod under irrigated conditions revealed that spacing and the effect of nitrogen levels was found to be non-significant. The interaction effect of spacing × nitrogen (S × N) was also non-significant, indicating no interaction between spacing and nitrogen levels (Table 40).

Table 40. Seed cotton yield (kg/ha) of SS 459 BG-II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 145 X 30 cm	S2- 145 X 45 cm	S3:- 145 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% of RDN	2435	2294	2319	2349	2094
N2- 100 % of RDN	2458	2271	2124	2284	1965
N3- 125% of RDN	2310	2312	2194	2272	2199
Mean (spacing)	2401	2292	2212		
ANOVA	Spacing	Nitrogen	S X N		
SE d	106.36	106.36	184.22		
CD (5%)	NS	NS	NS		
CV	9.83				

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: SS 459 BG II, Environment: Irrigated, Total rainfall during cropping period: 1044 mm



TALOD (C 9337 BG -II)

The results of agronomic requirement studies conducted at Talod under irrigated conditions revealed that spacing and the effect of nitrogen levels was found to be non-significant. The interaction effect of spacing $\times$ nitrogen (S $\times$ N) was also non-significant, indicating no interaction between spacing and nitrogen levels (Table 41).

Table 41. Seed cotton yield (kg/ha) of C 9337 BG –II as influenced by spacing levels and nutrient levels at Talod

Treatments	S1- 120 X 30 cm	S2- 120 X 45 cm	S3:- 120 X 60 cm	Mean (nitrogen)	Control (NBC 2020 BG-II)
N1- 75% of RDN	2435	2294	2319	2349	2094
N2- 100 % of RDN	2458	2271	2124	2284	1965
N3- 125% of RDN	2310	2312	2194	2272	2199
Mean (spacing)	2401	2292	2212		
ANOVA	Spacing	Nitrogen	S X N		
SE d	106.36	106.36	184.22		
CD (5%)	NS	NS	NS		
CV	9.83				

Basic parameters: pH: 7.60, EC: 0.09, OC (%): 0.241, Available N: 177.18 kg/ha, Available P₂O₅: 33.15 kg/ha, Available K₂O: 158.19 kg/ha, Recommended nutrients: 320:0:120 kg NPK/ha, Genotype: C 9337 BGII, Environment: Irrigated, Total rainfall during cropping period: 1044 mm



Initial Evaluation Trial of Compact Intra-Hirsutum Bt Hybrids - Irrigated

Constitution of Trial

The trial was constituted with eight Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids at closer spacing and one zonal check hybrid in normal spacing as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	5	52081	RSCH 119 BGII	Royal Seeds Private Limited
2	9	52082	RSCH 136 BGII	Royal Seeds Private Limited
3	3	52083	TBG 23/5 BG II	Cotton Research Station Talod
4	10	52084	PRCH 2799 Bt2 (ZC1)	
5	1	52085	DLCH 459 Bt II	Dhanalaxmi
6	4	52086	ACH-51-2 BGII	Ajeet Seeds Pvt Ltd.
7	7	52087	VSCH 546 BG II	Veda Seed Sciences Pvt. Ltd.
8	8	52088	22SS44 BGII	Sri Sathya seeds
9	6	52089	VPCH 474 BG II	Vanapamula Seeds Pvt. Ltd.
10	2	52090	NBC 2020 BG II (ZC2)	
11			PRCH 2799 Bt2 (ZC1) (normal)	

The trial was conducted in four different locations viz., Junagadh, Talod, Rahuri, and Khandwa.

Spacing: All the coded entries were given a spacing of 90 x 15 cm and one zonal check hybrid was given recommended spacing for the hybrid.

Number of rows: 6 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	142.0	132.7	113.3	179.9	142.0
2	RSCH 136 BGII	135.0	156.6	109.0	179.6	145.1
3	TBG 23/5 BG II	129.0	177.4	106.7	167.5	145.2
4	PRCH 2799 Bt2 (ZC1)	143.0	151.3	100.7	174.9	142.5
5	DLCH 459 Bt II	123.0	150.7	100.3	177.5	137.9
6	ACH-51-2 BGII	134.0	134.1	106.7	156.7	132.9
7	VSCH 546 BG II	127.0	174.1	104.0	190.3	148.9
8	22SS44 BGII	110.0	143.7	107.0	173.5	133.6
9	VPCH 474 BG II	142.0	175.4	109.0	186.9	153.3
10	NBC 2020 BG II (ZC2)	135.0	131.9	106.7	169.1	135.7
11	PRCH 2799 Bt2 (ZC1) (normal)	136.0	123.4	153.0	160.5	143.2
	CD @ 5%	16.2	13.5	7.1	20.7	
	CV%	7.2	5.3	3.8	8.0	

Table: Number of monopodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	0.0	0.0	1.5	0.0	0.4
2	RSCH 136 BGII	0.2	0.0	1.5	0.0	0.4
3	TBG 23/5 BG II	0.3	0.4	1.4	0.1	0.6
4	PRCH 2799 Bt2 (ZC1)	0.4	0.0	1.6	0.5	0.6
5	DLCH 459 Bt II	0.2	0.0	1.3	0.0	0.4
6	ACH-51-2 BGII	0.0	0.0	1.7	0.8	0.6
7	VSCH 546 BG II	0.0	0.1	1.6	0.4	0.5
8	22SS44 BGII	0.2	0.0	1.4	0.0	0.4
9	VPCH 474 BG II	0.0	0.0	1.3	0.0	0.3
10	NBC 2020 BG II (ZC2)	0.0	0.0	1.4	0.0	0.4
11	PRCH 2799 Bt2 (ZC1) (normal)	0.4	1.1	2.5	0.5	1.1
	CD @ 5%	0.1	0.2	0.4		
	CV%	22.1	66.0	17.2		



Table: Number of sympodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	18.5	16.3	12.3	20.0	16.8
2	RSCH 136 BGII	18.4	12.9	11.3	21.7	16.1
3	TBG 23/5 BG II	17.2	18.9	11.1	21.4	17.2
4	PRCH 2799 Bt2 (ZC1)	17.8	15.8	10.1	22.1	16.5
5	DLCH 459 Bt II	18.2	14.7	10.3	20.9	16.0
6	ACH-51-2 BGII	18.5	14.2	11.5	21.1	16.3
7	VSCH 546 BG II	17.3	13.3	10.7	22.5	16.0
8	22SS44 BGII	15.3	13.5	10.6	20.7	15.0
9	VPCH 474 BG II	16.6	12.9	11.0	20.4	15.2
10	NBC 2020 BG II (ZC2)	16.3	12.7	10.6	21.8	15.4
11	PRCH 2799 Bt2 (ZC1) (normal)	18.4	15.3	14.5	26.3	18.6
	CD @ 5%	2.0	3.0	0.8	2.3	
	CV%	6.8	12.2	4.4	7.2	

Table: Boll weight (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	5.5	6.2	6.9	5.2	6.0
2	RSCH 136 BGII	5.4	5.9	6.6	5.5	5.9
3	TBG 23/5 BG II	4.1	4.6	5.1	4.7	4.6
4	PRCH 2799 Bt2 (ZC1)	4.8	6.7	5.3	4.7	5.4
5	DLCH 459 Bt II	5.6	5.7	5.0	4.6	5.2
6	ACH-51-2 BGII	5.5	6.2	6.8	5.5	6.0
7	VSCH 546 BG II	5.5	5.9	5.6	5.2	5.6
8	22SS44 BGII	5.2	6.3	6.5	5.4	5.9
9	VPCH 474 BG II	5.2	6.1	5.5	5.4	5.6
10	NBC 2020 BG II (ZC2)	5.0	6.0	5.5	5.9	5.6
11	PRCH 2799 Bt2 (ZC1) (normal)	4.8	5.9	6.5	5.7	5.7
	CD @ 5%	0.5	0.9	0.2	0.8	
	CV%	6.0	8.9	2.3	9.7	



Table: Number of bolls / plant in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	9.9	44.6	28.4	13.9	24.2
2	RSCH 136 BGII	10.1	46.7	26.9	14.3	24.5
3	TBG 23/5 BG II	10.1	56.7	22.7	12.2	25.4
4	PRCH 2799 Bt2 (ZC1)	8.7	44.5	19.7	12.7	21.4
5	DLCH 459 Bt II	8.7	35.8	21.7	13.1	19.8
6	ACH-51-2 BGII	9.5	37.5	27.9	15.7	22.7
7	VSCH 546 BG II	8.0	28.1	18.1	11.9	16.5
8	22SS44 BGII	7.5	40.0	23.3	13.8	21.2
9	VPCH 474 BG II	8.5	37.2	22.3	12.3	20.1
10	NBC 2020 BG II (ZC2)	8.9	46.5	22.1	10.6	22.0
11	PRCH 2799 Bt2 (ZC1) (normal)	31.6	48.4	39.3	35.7	38.8
	CD @ 5%	2.8	8.5	2.6	2.4	
	CV%	15.0	11.8	6.3	10.6	

Table: Number of bolls / sq.m. in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	63.5	330.2	210.2	142.1	186.5
2	RSCH 136 BGII	63.0	346.0	198.8	145.8	188.4
3	TBG 23/5 BG II	64.5	419.7	167.7	122.6	193.6
4	PRCH 2799 Bt2 (ZC1)	56.4	329.3	145.5	128.6	165.0
5	DLCH 459 Bt II	56.1	265.2	160.8	132.3	153.6
6	ACH-51-2 BGII	60.9	277.5	206.2	161.5	176.5
7	VSCH 546 BG II	55.9	208.0	134.2	118.9	129.3
8	22SS44 BGII	43.7	296.3	172.7	140.6	163.3
9	VPCH 474 BG II	54.0	275.3	164.8	124.1	154.6
10	NBC 2020 BG II (ZC2)	56.3	344.5	163.3	104.7	167.2
11	PRCH 2799 Bt2 (ZC1) (normal)	73.7	69.2	54.3	108.3	76.4
	CD @ 5%	14.5	55.4	15.7	25.1	
	CV%	14.5	11.3	5.8	13.1	



Table: Lint Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	6.3	5.4	6.1	6.0	6.0
2	RSCH 136 BGII	5.9	5.9	5.4	6.8	6.0
3	TBG 23/5 BG II	4.6	5.3	4.2	4.9	4.8
4	PRCH 2799 Bt2 (ZC1)	4.9	6.8	6.0	6.2	6.0
5	DLCH 459 Bt II	6.3	5.6	6.1	6.2	6.1
6	ACH-51-2 BGII	6.3	6.7	6.4	6.7	6.5
7	VSCH 546 BG II	4.8	6.3	6.0	6.4	5.9
8	22SS44 BGII	4.7	6.1	6.0	6.5	5.8
9	VPCH 474 BG II	4.7	5.9	5.4	6.7	5.7
10	NBC 2020 BG II (ZC2)	5.3	5.6	5.8	6.0	5.7
11	PRCH 2799 Bt2 (ZC1) (normal)	5.0	6.6	5.9	5.6	5.8
	CD @ 5%	0.7	0.6			
	CV%	7.6	5.9			

Table: Seed Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	11.7	12.3	10.7	10.3	11.3
2	RSCH 136 BGII	11.0	13.0	11.2	11.4	11.7
3	TBG 23/5 BG II	10.2	10.7	8.5	9.1	9.6
4	PRCH 2799 Bt2 (ZC1)	9.5	12.3	10.6	10.7	10.8
5	DLCH 459 Bt II	11.7	11.7	9.8	11.0	11.1
6	ACH-51-2 BGII	11.7	12.0	12.1	11.3	11.8
7	VSCH 546 BG II	11.3	13.7	11.3	11.2	11.9
8	22SS44 BGII	11.0	12.3	11.9	11.1	11.6
9	VPCH 474 BG II	10.5	12.7	10.4	11.8	11.4
10	NBC 2020 BG II (ZC2)	11.8	12.0	12.1	11.0	11.7
11	PRCH 2799 Bt2 (ZC1) (normal)	10.7	12.0	9.9	9.1	10.4
	CD @ 5%	1.2	1.2			
	CV%	6.5	5.7			



Table: Ginning outturn (%) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	35.2	30.4	36.5	37.0	34.8
2	RSCH 136 BGII	35.0	31.2	32.4	37.4	34.0
3	TBG 23/5 BG II	31.0	33.1	32.9	35.0	33.0
4	PRCH 2799 Bt2 (ZC1)	34.0	35.5	36.2	36.5	35.6
5	DLCH 459 Bt II	35.0	32.4	38.5	36.1	35.5
6	ACH-51-2 BGII	35.2	35.7	34.7	37.1	35.7
7	VSCH 546 BG II	29.5	31.5	34.6	36.5	33.0
8	22SS44 BGII	30.0	33.2	33.4	37.0	33.4
9	VPCH 474 BG II	31.2	31.9	34.3	36.2	33.4
10	NBC 2020 BG II (ZC2)	31.0	31.7	32.4	35.2	32.6
11	PRCH 2799 Bt2 (ZC1) (normal)	32.2	35.6	37.3	38.0	35.8
	CD @ 5%	1.6	1.2			
	CV%	2.9	2.1			

Table: Upper Half Mean Length (mm) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	30.6	31.4	32.4	29.3	30.9
2	RSCH 136 BGII	30.4	30.2	30.4	30.3	30.3
3	TBG 23/5 BG II	27.3	30.3	27.1	26.4	27.8
4	PRCH 2799 Bt2 (ZC1)	28.4	29.9	30.6	28.3	29.3
5	DLCH 459 Bt II	29.6	30.9	28.0	28.9	29.4
6	ACH-51-2 BGII	28.1	29.9	29.6	28.1	28.9
7	VSCH 546 BG II	29.7	31.4	30.9	28.6	30.2
8	22SS44 BGII	30.0	31.4	31.5	29.0	30.5
9	VPCH 474 BG II	30.0	29.7	29.5	29.5	29.7
10	NBC 2020 BG II (ZC2)	30.2	29.6	30.8	28.8	29.9
11	PRCH 2799 Bt2 (ZC1) (normal)	29.2	29.0	29.1	26.7	28.5



Table: Uniformity index under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	84.0	85.0	86.0	84.0	84.8
2	RSCH 136 BGII	84.0	84.0	85.0	84.0	84.3
3	TBG 23/5 BG II	80.0	84.0	84.0	82.0	82.5
4	PRCH 2799 Bt2 (ZC1)	84.0	87.0	85.0	85.0	85.3
5	DLCH 459 Bt II	84.0	87.0	83.0	82.0	84.0
6	ACH-51-2 BGII	84.0	87.0	85.0	84.0	85.0
7	VSCH 546 BG II	84.0	87.0	85.0	83.0	84.8
8	22SS44 BGII	84.0	87.0	85.0	83.0	84.8
9	VPCH 474 BG II	84.0	84.0	84.0	83.0	83.8
10	NBC 2020 BG II (ZC2)	85.0	84.0	85.0	82.0	84.0
11	PRCH 2799 Bt2 (ZC1) (normal)	83.0	86.0	85.0	82.0	84.0

Table: Micronaire under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	4.5	5.0	3.4	3.6	4.1
2	RSCH 136 BGII	4.4	5.0	3.4	3.2	4.0
3	TBG 23/5 BG II	4.8	5.0	3.8	3.8	4.4
4	PRCH 2799 Bt2 (ZC1)	5.0	5.2	4.0	4.1	4.6
5	DLCH 459 Bt II	4.0	4.3	4.5	4.3	4.3
6	ACH-51-2 BGII	5.7	5.6	4.3	4.1	4.9
7	VSCH 546 BG II	4.3	5.0	3.9	3.6	4.2
8	22SS44 BGII	4.4	4.8	3.6	4.3	4.3
9	VPCH 474 BG II	4.6	5.4	3.4	3.6	4.3
10	NBC 2020 BG II (ZC2)	3.8	5.0	3.6	4.5	4.2
11	PRCH 2799 Bt2 (ZC1) (normal)	4.8	5.2	4.3	4.5	4.7



Table: Tenacity under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	29.3	31.8	32.5	28.8	30.6
2	RSCH 136 BGII	32.0	29.3	30.3	28.2	30.0
3	TBG 23/5 BG II	29.5	32.0	28.6	28.5	29.7
4	PRCH 2799 Bt2 (ZC1)	28.2	32.0	31.2	28.2	29.9
5	DLCH 459 Bt II	29.9	33.8	29.0	28.3	30.3
6	ACH-51-2 BGII	30.1	31.2	29.9	27.8	29.8
7	VSCH 546 BG II	29.9	30.8	31.0	27.0	29.7
8	22SS44 BGII	31.5	32.3	31.1	29.0	31.0
9	VPCH 474 BG II	30.8	30.1	30.3	28.6	30.0
10	NBC 2020 BG II (ZC2)	28.7	29.9	30.8	28.8	29.6
11	PRCH 2799 Bt2 (ZC1) (normal)	29.6	31.5	29.7	28.4	29.8

Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	20.01	18.36	14.68	14.46	16.88
2	RSCH 136 BGII	19.55	15.62	15.73	14.75	16.41
3	TBG 23/5 BG II	14.52	13.40	7.79	10.51	11.56
4	PRCH 2799 Bt2 (ZC1)	16.12	18.08	10.86	11.50	14.14
5	DLCH 459 Bt II	19.66	13.13	12.17	13.50	14.62
6	ACH-51-2 BGII	22.40	16.33	14.64	13.99	16.84
7	VSCH 546 BG II	17.61	6.75	10.66	11.38	11.60
8	22SS44 BGII	13.95	17.40	15.43	14.08	15.22
9	VPCH 474 BG II	17.49	11.69	10.53	12.88	13.15
10	NBC 2020 BG II (ZC2)	15.89	19.92	9.99	11.58	14.35
11	PRCH 2799 Bt2 (ZC1) (normal)	15.32	23.25	10.95	14.28	15.95
	CD @ 5%	3.15	4.00	1.97		
	CV%	10.56	14.87	9.79		



Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean
1	RSCH 119 BGII	13.83	9.12	20.00	4.57	11.88
2	RSCH 136 BGII	14.06	11.47	18.03	4.41	11.99
3	TBG 23/5 BG II	9.72	12.89	13.17	3.89	9.92
4	PRCH 2799 Bt2 (ZC1)	10.98	11.68	9.97	4.47	9.28
5	DLCH 459 Bt II	12.00	7.16	15.37	4.50	9.76
6	ACH-51-2 BGII	11.32	6.63	19.58	5.17	10.68
7	VSCH 546 BG II	10.29	9.79	10.83	3.40	8.58
8	22SS44 BGII	8.92	7.74	14.17	4.95	8.95
9	VPCH 474 BG II	10.63	10.94	11.03	5.01	9.40
10	NBC 2020 BG II (ZC2)	9.95	8.20	13.18	3.86	8.80
11	PRCH 2799 Bt2 (ZC1) (normal)	11.20	8.67	8.81	4.27	8.24
	CD @ 5%	2.49	2.39	2.10		
	CV%	13.11	14.77	8.88		

Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Mean	Rank	% Inc over best check
1	RSCH 119 BGII	33.84	27.49	34.68	19.03	28.76	1	18.9
2	RSCH 136 BGII	33.61	27.09	33.76	19.16	28.41	2	17.4
3	TBG 23/5 BG II	24.23	26.29	20.96	14.39	21.47	10	-11.3
4	PRCH 2799 Bt2 (ZC1)	27.09	29.75	20.82	15.97	23.41	7	-3.2
5	DLCH 459 Bt II	31.66	20.30	27.54	17.99	24.37	4	0.8
6	ACH-51-2 BGII	33.72	22.96	34.22	19.17	27.52	3	13.8
7	VSCH 546 BG II	27.89	16.53	21.49	14.78	20.17	11	-16.6
8	22SS44 BGII	22.86	25.14	29.60	19.03	24.16	6	-0.1
9	VPCH 474 BG II	28.12	22.63	21.57	17.89	22.55	9	-6.8
10	NBC 2020 BG II (ZC2)	25.83	28.12	23.17	15.44	23.14	8	-4.3
11	PRCH 2799 Bt2 (ZC1) (normal)	26.52	31.91	19.76	18.55	24.19	5	0.0
	CD @ 5%	3.97	4.71	3.21	3.10			
	CV%	8.14	10.93	7.33	12.04			



Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

**Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions –
Aphid**

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	9.90	-	1.67	9.73	29.15	-	12.61	AETL
RSCH 136 BGII	7.83	-	1.67	10.24	20.36	-	10.03	AETL
TBG 23/5 BG II	11.43	-	1.76	9.93	23.96	-	11.77	AETL
PRCH 2799 Bt2 (ZC1)	6.90	-	1.73	10.67	29.37	-	12.17	AETL
DLCH 459 Bt II	8.30	-	1.87	10.20	16.36	-	9.18	BETL
ACH-51-2 BGII	10.83	-	1.71	10.36	21.36	-	11.07	AETL
VSCH 546 BG II	8.60	-	1.67	10.16	18.96	-	9.85	BETL
22SS44 BGII	9.50	-	1.53	11.02	21.36	-	10.85	AETL
VPCH 474 BG II	7.23	-	1.84	11.04	12.36	-	8.12	BETL
NBC 2020 BG II (ZC2)	10.37	-	1.62	11.96	23.26	-	11.80	AETL
PRCH 2799 Bt2 (ZC1) (normal)	8.97	-	1.53	11.64	12.36		8.63	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	5.73	-	1.67	2.07	11.63	-	5.27	BETL
RSCH 136 BGII	6.93	-	1.58	1.96	6.96	-	4.36	BETL
TBG 23/5 BG II	9.07	-	1.60	1.91	10.36	-	5.73	BETL
PRCH 2799 Bt2 (ZC1)	6.43	-	1.53	2.16	8.69	-	4.70	BETL
DLCH 459 Bt II	8.07	-	1.56	1.89	12.32	-	5.96	BETL
ACH-51-2 BGII	7.13	-	1.38	2.02	10.00	-	5.13	BETL
VSCH 546 BG II	6.67	-	1.49	1.94	9.96	-	5.02	BETL
22SS44 BGII	5.43	-	1.53	1.96	11.36	-	5.07	BETL
VPCH 474 BG II	5.97	-	1.53	2.09	10.96	-	5.14	BETL
NBC 2020 BG II (ZC2)	8.60	-	1.47	2.07	9.89	-	5.51	BETL
PRCH 2799 Bt2 (ZC1) (normal)	7.60	-	1.38	1.93	11.26		5.54	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions –JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	II	-	I	I	-	-	I	
RSCH 136 BGII	II	-	I	I	-	-	I	
TBG 23/5 BG II	II	-	I	I	-	-	I	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	-	I	
DLCH 459 Bt II	II	-	I	I	-	-	I	
ACH-51-2 BGII	II	-	I	I	-	-	I	
VSCH 546 BG II	II	-	I	I	-	-	I	
22SS44 BGII	II	-	I	I	-	-	I	
VPCH 474 BG II	II	-	I	I	-	-	I	
NBC 2020 BG II (ZC2)	II	-	I	I	-	-	I	
PRCH 2799 Bt2 (ZC1) (normal)	II	-	I	I	-	-	I	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, *Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	11.47	-	1.04	10.11	-	-	7.54	BETL
RSCH 136 BGII	7.90	-	1.31	10.22	-	-	6.48	BETL
TBG 23/5 BG II	12.03	-	1.11	10.53	-	-	7.89	BETL
PRCH 2799 Bt2 (ZC1)	8.33	-	1.33	10.29	-	-	6.65	BETL
DLCH 459 Bt II	10.17	-	1.20	10.38	-	-	7.25	BETL
ACH-51-2 BGII	12.80	-	1.27	9.42	-	-	7.83	BETL
VSCH 546 BG II	9.17	-	1.16	10.64	-	-	6.99	BETL
22SS44 BGII	9.80	-	1.09	10.36	-	-	7.08	BETL
VPCH 474 BG II	8.77	-	1.20	9.18	-	-	6.38	BETL
NBC 2020 BG II (ZC2)	10.83	-	1.11	9.56	-	-	7.17	BETL
PRCH 2799 Bt2 (ZC1) (normal)	9.43	-	1.20	10.09	-	-	6.91	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	9.10	-	0.80	1.62	11.96	-	5.87	BETL
RSCH 136 BGII	6.73	-	0.87	1.47	12.60	-	5.42	BETL
TBG 23/5 BG II	9.37	-	0.80	1.49	9.96	-	5.40	BETL
PRCH 2799 Bt2 (ZC1)	6.30	-	0.80	1.51	14.22	-	5.71	BETL
DLCH 459 Bt II	7.13	-	1.02	1.29	9.36	-	4.70	BETL
ACH-51-2 BGII	8.70	-	1.04	1.42	12.32	-	5.87	BETL
VSCH 546 BG II	7.40	-	0.98	1.49	11.10	-	5.24	BETL
22SS44 BGII	8.27	-	1.04	1.40	10.20	-	5.23	BETL
VPCH 474 BG II	6.00	-	0.98	1.36	10.90	-	4.81	BETL
NBC 2020 BG II (ZC2)	9.77	-	0.93	1.47	9.89	-	5.51	BETL
PRCH 2799 Bt2 (ZC1) (normal)	7.87	-	0.96	1.29	9.99		5.03	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	1.60	-	-	0.53	
RSCH 136 BGII	0.00	-	0.00	2.04	-	-	0.68	
TBG 23/5 BG II	0.00	-	0.00	1.98	-	-	0.66	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	1.88	-	-	0.63	
DLCH 459 Bt II	0.00	-	0.00	1.80	-	-	0.60	
ACH-51-2 BGII	0.00	-	0.00	2.16	-	-	0.72	
VSCH 546 BG II	0.00	-	0.00	2.07	-	-	0.69	
22SS44 BGII	0.00	-	0.00	1.91	-	-	0.64	
VPCH 474 BG II	0.00	-	0.00	1.87	-	-	0.62	
NBC 2020 BG II (ZC2)	0.00	-	0.00	1.84	-	-	0.61	
PRCH 2799 Bt2 (ZC1) (normal)	0.00	-	0.00	2.40	-		0.80	

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Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1) (normal)	0.00	-	0.00	0.00	-		0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1) (normal)	0.00	-	0.00	0.00	-		0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1) (normal)	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	3.75	-	0.04	1.78	14.65	-	5.06	AETL
RSCH 136 BGII	5.25	-	0.04	1.67	12.69	-	4.91	AETL
TBG 23/5 BG II	2.65	-	0.07	1.22	14.56	-	4.62	AETL
PRCH 2799 Bt2 (ZC1)	3.25	-	0.02	1.67	10.20	-	3.78	AETL
DLCH 459 Bt II	3.05	-	0.04	1.22	11.20	-	3.88	AETL
ACH-51-2 BGII	4.95	-	0.09	1.78	11.80	-	4.65	AETL
VSCH 546 BG II	2.45	-	0.04	2.33	10.35	-	3.79	AETL
22SS44 BGII	4.65	-	0.04	1.56	12.95	-	4.80	AETL
VPCH 474 BG II	4.35	-	0.00	2.00	18.69	-	6.26	AETL
NBC 2020 BG II (ZC2)	3.55	-	0.02	1.56	9.52	-	3.66	AETL
PRCH 2799 Bt2 (ZC1) (normal)	4.05	-	0.02	1.78	13.26	-	4.78	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* data based on 20 green bolls, # data based on 2 observation



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions -Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1) (normal)	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	9.41	-	0.49	14.44	-	-	8.11	BETL
RSCH 136 BGII	12.76	-	0.38	13.33	-	-	8.82	BETL
TBG 23/5 BG II	7.28	-	0.38	13.33	-	-	7.00	BETL
PRCH 2799 Bt2 (ZC1)	8.27	-	0.49	20.00	-	-	9.59	BETL
DLCH 459 Bt II	7.68	-	0.49	13.33	-	-	7.17	BETL
ACH-51-2 BGII	12.17	-	0.38	17.78	-	-	10.11	AETL
VSCH 546 BG II	6.78	-	0.49	17.78	-	-	8.35	BETL
22SS44 BGII	11.42	-	0.27	17.78	-	-	9.82	BETL
VPCH 474 BG II	10.81	-	0.49	18.89	-	-	10.06	AETL
NBC 2020 BG II (ZC2)	8.81	-	0.38	21.11	-	-	10.10	AETL
PRCH 2799 Bt2 (ZC1) (normal)	10.15	-	0.16	12.22	-	-	7.51	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, # data based on 2 observation



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	12.33	-	5.56	19.35	-	-	12.42	
RSCH 136 BGII	15.41	-	11.35	21.01	-	-	15.92	
TBG 23/5 BG II	10.06	-	8.30	15.87	-	-	11.41	
PRCH 2799 Bt2 (ZC1)	11.26	-	8.64	31.94	-	-	17.28	
DLCH 459 Bt II	10.66	-	11.40	20.86	-	-	14.31	
ACH-51-2 BGII	14.79	-	2.97	21.07	-	-	12.94	
VSCH 546 BG II	9.12	-	13.36	21.15	-	-	14.54	
22SS44 BGII	14.21	-	16.43	20.36	-	-	17.00	
VPCH 474 BG II	13.58	-	7.36	27.42	-	-	16.12	
NBC 2020 BG II (ZC2)	11.62	-	10.13	19.33	-	-	13.69	
PRCH 2799 Bt2 (ZC1) (normal)	13.12	-	2.62	32.58	-		16.11	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	7.55	-	3.75	6.25	-	-	5.85	
RSCH 136 BGII	11.46	-	8.32	7.11	-	-	8.97	
TBG 23/5 BG II	5.26	-	4.63	5.66	-	-	5.18	
PRCH 2799 Bt2 (ZC1)	6.53	-	5.56	10.55	-	-	7.55	
DLCH 459 Bt II	5.62	-	6.83	7.22	-	-	6.56	
ACH-51-2 BGII	10.78	-	1.51	7.46	-	-	6.58	
VSCH 546 BG II	4.37	-	7.85	8.74	-	-	6.99	
22SS44 BGII	10.1	-	8.50	7.12	-	-	8.57	
VPCH 474 BG II	9.43	-	4.13	9.91	-	-	7.82	
NBC 2020 BG II (ZC2)	6.82	-	7.76	5.88	-	-	6.82	
PRCH 2799 Bt2 (ZC1) (normal)	7.97	-	1.77	10.62	-		6.79	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – No. of Sprays for Insect- Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
RSCH 119 BGII	7.00	-	4.00	5.00	-	-	5.33	
RSCH 136 BGII	7.00	-	4.00	5.00	-	-	5.33	
TBG 23/5 BG II	7.00	-	4.00	5.00	-	-	5.33	
PRCH 2799 Bt2 (ZC1)	7.00	-	4.00	5.00	-	-	5.33	
DLCH 459 Bt II	7.00	-	4.00	5.00	-	-	5.33	
ACH-51-2 BGII	7.00	-	4.00	5.00	-	-	5.33	
VSCH 546 BG II	7.00	-	4.00	5.00	-	-	5.33	
22SS44 BGII	7.00	-	4.00	5.00	-	-	5.33	
VPCH 474 BG II	7.00	-	4.00	5.00	-	-	5.33	
NBC 2020 BG II (ZC2)	7.00	-	4.00	5.00	-	-	5.33	
PRCH 2799 Bt2 (ZC1) (normal)	7.00	-	4.00	5.00	-		5.33	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Reaction to Diseases

Table 4 (a) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids– Irrigated (IET-Compact IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		Internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
5	52081	RSCH 119 BGII	19.2	R	2.3	R	14.0	R	14.8	R	26.7	MR	0.0	DF	0.0	DF	6.5	R	7.8	R	6.2	R	0.0	DF
9	52052	RSCH 136 BGII	22.5	R	11.8	R	14.3	R	29.3	MR	20.0	R	0.0	DF	0.0	DF	9.1	R	4.2	R	10.5	R	0.0	DF
3	52083	TBG 23/5 BG II	23.3	R	4.0	R	15.5	R	19.7	R	20.0	R	0.0	DF	0.0	DF	8.5	R	8.1	R	11.2	R	0.0	DF
10	52084	PRCH 2799 Bt2 (ZC1)	15.3	R	10.2	R	14.7	R	23.7	R	22.2	R	0.0	DF	0.0	DF	7.2	R	9.2	R	5.0	R	0.0	DF
1	52085	DLCH 459 Bt II	17.7	R	0.2	R	22.2	R	16.7	R	26.7	MR	0.0	DF	0.0	DF	10.3	R	9.6	R	4.2	R	0.0	DF
4	52086	ACH-51-2 BGII	18.7	R	8.0	R	17.7	R	10.5	R	33.3	MR	0.0	DF	0.0	DF	11.1	R	8.5	R	7.1	R	0.0	DF
7	52087	VSCH 546 BG II	21.7	R	11.3	R	13.0	R	22.5	R	17.8	R	0.0	DF	0.0	DF	0.0	DF	4.3	R	6.7	R	0.0	DF
8	52088	22SS44 BGII	20.7	R	2.0	R	12.3	R	19.5	R	26.7	MR	0.0	DF	0.0	DF	5.1	R	4.6	R	9.4	R	0.0	DF
6	52089	VPCH 474 BG II	22.0	R	8.3	R	16.2	R	21.8	R	20.0	R	0.0	DF	0.0	DF	9.2	R	13.5	R	8.2	R	0.0	DF
2	52090	NBC 2020 BG II (ZC2)	26.8	MR	8.0	R	16.2	R	19.5	R	33.3	MR	0.0	DF	0.0	DF	3.4	R	7.7	R	4.3	R	0.0	DF



Table 4 (b) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids– Irrigated (IET-Compact IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected condition							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	PDI	PDI	PDI	PDI	PDI	PDI	PDI
5	52081	RSCH 119 BGII	17.5	R	17.5	R	27.5	MR	0.0	DF
9	52052	RSCH 136 BGII	17.5	R	10.0	R	25.0	R	0.0	DF
3	52083	TBG 23/5 BG II	22.5	R	17.5	R	35.0	MR	0.0	DF
10	52084	PRCH 2799 Bt2 (ZC1)	20.0	R	22.5	R	30.0	MR	0.0	DF
1	52085	DLCH 459 Bt II	37.5	MR	37.5	MS	62.5	MS	0.0	DF
4	52086	ACH-51-2 BGII	22.5	R	22.5	R	30.0	MR	0.0	DF
7	52087	VSCH 546 BG II	42.5	MR	32.5	MR	57.5	MS	7.5	R
8	52088	22SS44 BGII	50.0	MR	35.0	MR	77.5	S	7.5	R
6	52089	VPCH 474 BG II	27.5	R	22.5	R	67.5	MS	5.0	R
2	52090	NBC 2020 BG II (ZC2)	22.5	R	17.5	R	27.5	MR	0.0	DF



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	10.23	-	3.27	13.02	-	-	8.84	BETL
RSCH 136 BGII	8.17	-	3.40	13.44	-	-	8.34	BETL
TBG 23/5 BG II	11.77	-	3.13	12.84	-	-	9.25	BETL
PRCH 2799 Bt2 (ZC1)	7.23	-	3.53	13.71	-	-	8.16	BETL
DLCH 459 Bt II	8.63	-	3.73	13.20	-	-	8.52	BETL
ACH-51-2 BGII	11.17	-	3.73	13.76	-	-	9.55	BETL
VSCH 546 BG II	8.90	-	3.73	13.36	-	-	8.66	BETL
22SS44 BGII	9.83	-	3.13	14.33	-	-	9.10	BETL
VPCH 474 BG II	7.57	-	4.27	13.89	-	-	8.57	BETL
NBC 2020 BG II (ZC2)	10.70	-	4.13	15.04	-	-	9.96	BETL
PRCH-2799 BG-II	9.30	-	3.47	14.98	-	-	9.25	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	6.03	-	3.00	4.44	-	-	4.49	BETL
RSCH 136 BGII	7.23	-	2.73	3.98	-	-	4.65	BETL
TBG 23/5 BG II	9.37	-	3.07	3.78	-	-	5.40	BETL
PRCH 2799 Bt2 (ZC1)	6.70	-	3.00	4.02	-	-	4.57	BETL
DLCH 459 Bt II	8.37	-	2.93	3.51	-	-	4.94	BETL
ACH-51-2 BGII	7.43	-	3.20	3.82	-	-	4.82	BETL
VSCH 546 BG II	6.97	-	3.07	3.71	-	-	4.58	BETL
22SS44 BGII	5.73	-	3.53	3.80	-	-	4.36	BETL
VPCH 474 BG II	6.30	-	3.13	3.93	-	-	4.46	BETL
NBC 2020 BG II (ZC2)	8.90	-	3.07	3.96	-	-	5.31	BETL
PRCH-2799 BG-II	7.90	-	3.20	3.76	-	-	4.95	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions –JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	II	-	I	I	-	-	I	
RSCH 136 BGII	II	-	I	I	-	-	I	
TBG 23/5 BG II	II	-	I	I	-	-	I	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	-	I	
DLCH 459 Bt II	II	-	I	I	-	-	I	
ACH-51-2 BGII	II	-	I	I	-	-	I	
VSCH 546 BG II	II	-	I	I	-	-	I	
22SS44 BGII	II	-	I	I	-	-	I	
VPCH 474 BG II	II	-	I	I	-	-	I	
NBC 2020 BG II (ZC2)	II	-	I	I	-	-	I	
PRCH-2799 BG-II	II	-	I	I	-	-	I	

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Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	11.70	-	3.40	13.07	-	-	9.39	BETL
RSCH 136 BGII	8.17	-	3.60	13.18	-	-	8.31	BETL
TBG 23/5 BG II	12.30	-	3.20	13.36	-	-	9.62	BETL
PRCH 2799 Bt2 (ZC1)	8.57	-	3.67	13.53	-	-	8.59	BETL
DLCH 459 Bt II	10.43	-	3.00	13.51	-	-	8.98	BETL
ACH-51-2 BGII	13.03	-	3.80	12.67	-	-	9.83	BETL
VSCH 546 BG II	9.43	-	3.93	13.91	-	-	9.09	BETL
22SS44 BGII	10.03	-	3.67	13.82	-	-	9.17	BETL
VPCH 474 BG II	9.03	-	3.20	12.56	-	-	8.26	BETL
NBC 2020 BG II (ZC2)	11.10	-	3.00	12.87	-	-	8.99	BETL
PRCH-2799 BG-II	9.70	-	3.87	13.44	-	-	9.00	BETL

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Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	9.43	-	0.07	3.09	-	-	4.20	BETL
RSCH 136 BGII	7.10	-	0.33	2.87	-	-	3.43	BETL
TBG 23/5 BG II	9.73	-	0.00	2.91	-	-	4.21	BETL
PRCH 2799 Bt2 (ZC1)	6.70	-	0.27	2.98	-	-	3.31	BETL
DLCH 459 Bt II	7.50	-	0.20	2.49	-	-	3.40	BETL
ACH-51-2 BGII	9.07	-	0.20	2.73	-	-	4.00	BETL
VSCH 546 BG II	7.73	-	0.00	2.84	-	-	3.53	BETL
22SS44 BGII	8.63	-	0.33	2.67	-	-	3.88	BETL
VPCH 474 BG II	6.37	-	0.07	2.91	-	-	3.11	BETL
NBC 2020 BG II (ZC2)	10.23	-	0.07	2.91	-	-	4.40	BETL
PRCH-2799 BG-II	8.20	-	0.27	2.84	-	-	3.77	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	2.64	-	-	0.88	
RSCH 136 BGII	0.00	-	0.00	2.93	-	-	0.98	
TBG 23/5 BG II	0.00	-	0.00	2.80	-	-	0.93	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	2.96	-	-	0.99	
DLCH 459 Bt II	0.00	-	0.00	3.02	-	-	1.01	
ACH-51-2 BGII	0.00	-	0.00	3.07	-	-	1.02	
VSCH 546 BG II	0.00	-	0.00	2.96	-	-	0.99	
22SS44 BGII	0.00	-	0.00	3.16	-	-	1.05	
VPCH 474 BG II	0.00	-	0.00	2.84	-	-	0.95	
NBC 2020 BG II (ZC2)	0.00	-	0.00	3.00	-	-	1.00	
PRCH-2799 BG-II	0.00	-	0.00	2.91	-	-	0.97	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	4.05	-	0.07	2.17	-	-	2.09	AETL
RSCH 136 BGII	5.55	-	0.00	2.50	-	-	2.68	AETL
TBG 23/5 BG II	2.95	-	0.07	1.83	-	-	1.62	AETL
PRCH 2799 Bt2 (ZC1)	3.55	-	0.00	2.50	-	-	2.02	AETL
DLCH 459 Bt II	3.35	-	0.07	1.67	-	-	1.69	AETL
ACH-51-2 BGII	5.25	-	0.13	2.67	-	-	2.68	AETL
VSCH 546 BG II	2.75	-	0.07	3.17	-	-	1.99	AETL
22SS44 BGII	4.95	-	0.00	2.33	-	-	2.43	AETL
VPCH 474 BG II	4.65	-	0.00	2.83	-	-	2.49	AETL
NBC 2020 BG II (ZC2)	3.85	-	0.13	2.83	-	-	2.27	AETL
PRCH-2799 BG-II	4.35	-	0.00	2.50	-	-	2.28	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH 136 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
TBG 23/5 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DLCH 459 Bt II	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH-51-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VSCH 546 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
22SS44 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
VPCH 474 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) /10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	9.72	-	0.33	20.00	-	-	10.02	AETL
RSCH 136 BGII	13.05	-	0.00	23.33	-	-	12.13	AETL
TBG 23/5 BG II	7.60	-	1.33	21.11	-	-	10.01	AETL
PRCH 2799 Bt2 (ZC1)	8.58	-	0.33	23.33	-	-	10.75	AETL
DLCH 459 Bt II	7.98	-	1.00	18.89	-	-	9.29	BETL
ACH-51-2 BGII	12.46	-	1.00	26.67	-	-	13.38	AETL
VSCH 546 BG II	7.10	-	0.33	30.00	-	-	12.48	AETL
22SS44 BGII	11.72	-	0.33	23.33	-	-	11.79	AETL
VPCH 474 BG II	11.11	-	0.00	26.67	-	-	12.59	AETL
NBC 2020 BG II (ZC2)	9.11	-	1.33	26.67	-	-	12.37	AETL
PRCH-2799 BG-II	10.44	-	0.33	23.33	-	-	11.37	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	12.63	-	13.21	24.46	-	-	16.76	
RSCH 136 BGII	15.70	-	14.89	27.31	-	-	19.30	
TBG 23/5 BG II	10.38	-	7.83	19.01	-	-	12.41	
PRCH 2799 Bt2 (ZC1)	11.57	-	11.50	39.71	-	-	20.93	
DLCH 459 Bt II	10.97	-	8.64	23.86	-	-	14.49	
ACH-51-2 BGII	15.09	-	5.10	26.60	-	-	15.60	
VSCH 546 BG II	9.44	-	9.30	31.09	-	-	16.61	
22SS44 BGII	14.50	-	27.84	24.37	-	-	22.24	
VPCH 474 BG II	13.88	-	14.55	36.00	-	-	21.47	
NBC 2020 BG II (ZC2)	11.91	-	5.65	24.65	-	-	14.07	
PRCH-2799 BG-II	13.44	-	11.11	39.43	-		21.33	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
RSCH 119 BGII	7.99	-	1.65	7.50	-	-	5.71	
RSCH 136 BGII	11.87	-	4.52	8.73	-	-	8.37	
TBG 23/5 BG II	5.72	-	2.61	6.69	-	-	5.01	
PRCH 2799 Bt2 (ZC1)	6.97	-	0.00	12.87	-	-	6.61	
DLCH 459 Bt II	6.06	-	2.16	8.05	-	-	5.42	
ACH-51-2 BGII	11.20	-	0.00	8.51	-	-	6.57	
VSCH 546 BG II	4.84	-	3.49	9.94	-	-	6.09	
22SS44 BGII	10.52	-	4.12	7.91	-	-	7.52	
VPCH 474 BG II	9.86	-	1.82	11.53	-	-	7.73	
NBC 2020 BG II (ZC2)	7.25	-	1.01	7.10	-	-	5.12	
PRCH-2799 BG-II	8.40	-	1.62	11.76	-		7.26	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 4 (c) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids– Irrigated (IET-Compact IRR) under Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																							
			Junagarh												Rahuri											
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR			
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR		
5	52081	RSCH 119 BGII	23.0	R	3.5	R	15.0	R	19.5	R	33.3	MR	0.0	DF	0.0	DF	8.8	R	8.8	R	28.1	MR	0.0	DF		
9	52082	RSCH 136 BGII	23.5	R	12.0	R	15.0	R	30.5	MR	26.7	MR	0.0	DF	0.0	DF	28.5	MR	5.5	R	25.6	MR	0.0	DF		
3	52083	TBG 23/5 BG II	25.0	R	5.5	R	17.5	R	22.0	R	20.0	R	0.0	DF	0.0	DF	10.4	R	10.0	R	24.2	R	0.0	DF		
10	52084	PRCH 2799 Bt2 (ZC1)	16.5	R	11.0	R	15.0	R	24.5	R	26.7	MR	0.0	DF	0.0	DF	10.4	R	27.1	MR	16.4	R	0.0	DF		
1	52085	DLCH 459 Bt II	16.5	R	1.0	R	23.5	R	17.0	R	26.7	MR	0.0	DF	0.0	DF	13.6	R	25.0	R	13.0	R	0.0	DF		
4	52086	ACH-51-2 BGII	19.0	R	9.0	R	18.0	R	19.0	R	40.0	MR	0.0	DF	0.0	DF	14.0	R	15.3	R	8.6	R	0.0	DF		
7	52087	VSCH 546 BG II	22.5	R	12.0	R	14.5	R	22.5	R	20.0	R	0.0	DF	0.0	DF	4.0	R	14.8	R	13.0	R	0.0	DF		
8	52088	22SS44 BGII	21.0	R	5.0	R	13.0	R	20.0	R	33.3	MR	0.0	DF	0.0	DF	7.3	R	7.2	R	11.5	R	0.0	DF		
6	52089	VPCH 474 BG II	23.5	R	9.5	R	17.0	R	23.5	R	26.7	MR	0.0	DF	0.0	DF	11.8	R	26.1	MR	10.9	R	0.0	DF		
2	52090	NBC 2020 BG II (ZC2)	27.0	MR	9.0	R	17.0	R	22.5	R	40.0	MR	0.0	DF	0.0	DF	25.5	MR	23.4	R	6.6	R	0.0	DF		



Advanced Evaluation Trial – I of Compact Intra-Hirsutum Bt Hybrids - Irrigated *Constitution of Trial*

The trial was constituted with six Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids at closer spacing and one zonal check hybrid in normal spacing as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	4	52101	PRCH 2799 Bt2 (ZC1)	
2	8	52102	DC5302 BGII	Rallis India Ltd
3	1	52103	NBC 29 BGII	Nath biogenes india ltd
4	3	52104	RSCH-999 BGII	Royal Seeds Pvt Ltd
5	5	52105	Indam-2412 BGII	IndoAmerican Hybrid seeds
6	7	52106	ACH 41-2 BGII	Ajeet seeds
7	2	52107	DGHH 1658 BG II	Dhanlaxmi crop science
8	6	52108	NBC 2020 BG II (ZC2)	
9			PRCH 2799 Bt2 (ZC1) (normal)	

The trial was conducted in six different locations viz., Junagadh, Talod, Rahuri, Khandwa, Gangapur (Ajeet Seeds) and Himmatnagar (Dhanlaxmi).

Spacing: All the coded entries were given a spacing of 90 x 15 cm and one zonal check hybrid was given recommended spacing for the hybrid.

Number of rows: 12 rows of 6 meters per entry with three replications

Data recorded:

Biometric evaluation

Table: Plant height (cm) at harvest in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	117.0	120.7	89.7	198.1	124.0	117.0	127.8
2	DC5302 BGII	136.0	146.7	92.3	182.4	118.0	103.0	129.7
3	NBC 29 BGII	126.0	124.2	100.0	188.3	140.0	125.0	133.9
4	RSCH-999 BGII	132.0	129.9	103.7	176.1	142.0	118.0	133.6
5	Indam-2412 BGII	140.0	136.5	103.3	197.2	151.0	107.0	139.2
6	ACH 41-2 BGII	112.0	129.0	99.3	178.3	148.0	98.0	127.4
7	DGHH 1658 BG II	129.0	133.6	103.7	179.2	150.0	100.0	132.6
8	NBC 2020 BG II (ZC2)	131.0	129.1	98.7	188.1	149.0	102.0	133.0
9	PRCH 2799 Bt2 (ZC1) (normal)	131.0	142.7	130.7	168.0	151.0	130.0	142.2
	CD @ 5%	15.7	11.1	7.2	21.0			
	CV%	7.1	4.9	4.1	7.6			



Table: Number of monopodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	0.4	0.1	1.4	0.5	1.2	0.7	0.7
2	DC5302 BGII	0.2	0.9	1.4	0.1	1.3	0.3	0.7
3	NBC 29 BGII	0.0	0.9	1.5	0.4	1.8	0.7	0.9
4	RSCH-999 BGII	0.0	0.4	1.6	0.0	2.0	0.3	0.7
5	Indam-2412 BGII	0.0	1.1	1.6	0.1	1.7	0.3	0.8
6	ACH 41-2 BGII	0.2	0.9	1.5	0.0	2.0	0.3	0.8
7	DGHH 1658 BG II	0.4	0.1	1.7	0.7	2.3	0.7	1.0
8	NBC 2020 BG II (ZC2)	0.2	0.0	1.7	0.2	1.6	0.3	0.7
9	PRCH 2799 Bt2 (ZC1) (normal)	0.3	1.1	2.6	1.9	1.8	1.0	1.5
	CD @ 5%	0.1	0.4	0.4	NS			
	CV%	20.8	38.0	12.7				

Table: Number of sympodia in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	17.4	13.6	10.1	26.6	17.4	12.0	16.2
2	DC5302 BGII	17.6	14.9	11.1	24.5	18.3	13.0	16.6
3	NBC 29 BGII	16.4	12.8	10.7	22.9	17.0	15.0	15.8
4	RSCH-999 BGII	18.2	14.2	11.9	24.0	16.3	12.0	16.1
5	Indam-2412 BGII	16.1	14.1	11.3	25.5	17.2	10.0	15.7
6	ACH 41-2 BGII	15.4	14.1	8.9	24.5	19.7	12.0	15.8
7	DGHH 1658 BG II	15.1	14.9	11.3	24.5	16.0	12.0	15.6
8	NBC 2020 BG II (ZC2)	17.5	13.2	10.5	25.6	17.1	13.0	16.2
9	PRCH 2799 Bt2 (ZC1) (normal)	17.3	15.7	14.7	26.2	19.0	14.0	17.8
	CD @ 5%	1.9	NS	1.6	5.9			
	CV%	6.6	12.7	8.5	15.7			



Table: Boll weight (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	4.8	5.3	5.1	4.2	4.7	5.4	4.9
2	DC5302 BGII	5.0	5.4	4.8	5.0	5.8	5.7	5.3
3	NBC 29 BGII	4.9	5.3	7.0	4.2	4.9	5.4	5.3
4	RSCH-999 BGII	5.4	5.4	6.9	5.0	5.1	5.7	5.6
5	Indam-2412 BGII	5.2	5.5	6.1	4.9	4.2	5.2	5.2
6	ACH 41-2 BGII	5.0	4.9	4.7	5.0	5.3	5.9	5.1
7	DGHH 1658 BG II	4.4	5.7	6.0	4.2	5.0	5.4	5.1
8	NBC 2020 BG II (ZC2)	5.2	6.0	6.1	4.8	4.5	5.5	5.4
9	PRCH 2799 Bt2 (ZC1) (normal)	4.8	5.8	6.2	5.6	4.4	5.7	5.4
	CD @ 5%	0.5	NS	0.2	0.7		0.2	
	CV%	6.4	11.3	2.0	10.0		2.4	

Table: Number of bolls / plant in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	9.3	32.0	12.1	11.3	20.0	14.0	16.5
2	DC5302 BGII	9.4	36.6	18.5	15.9	26.0	14.0	20.1
3	NBC 29 BGII	10.7	28.6	17.3	12.0	24.0	15.0	17.9
4	RSCH-999 BGII	10.2	24.6	21.2	16.7	27.0	13.0	18.8
5	Indam-2412 BGII	7.9	32.2	11.3	13.2	18.0	12.0	15.8
6	ACH 41-2 BGII	11.0	29.9	17.2	16.2	23.0	17.0	19.1
7	DGHH 1658 BG II	9.2	20.7	19.2	14.0	21.0	13.0	16.2
8	NBC 2020 BG II (ZC2)	7.3	22.7	11.4	13.6	19.0	13.0	14.5
9	PRCH 2799 Bt2 (ZC1) (normal)	32.4	44.1	36.3	26.8	22.0	20.0	30.3
	CD @ 5%	3.5	6.4	4.6	3.0		2.0	
	CV%	17.1	12.3	14.9	12.8		9.5	



Table: Number of bolls / sq.m. in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	60.5	160.2	89.8	137.1	110.0	93.0	108.4
2	DC5302 BGII	61.0	183.1	136.7	172.3	150.0	93.0	132.7
3	NBC 29 BGII	69.4	143.0	127.8	128.1	126.0	100.0	115.7
4	RSCH-999 BGII	68.3	123.0	156.9	182.2	151.0	87.0	128.1
5	Indam-2412 BGII	54.3	160.9	83.4	141.8	100.0	80.0	103.4
6	ACH 41-2 BGII	77.9	149.3	127.3	174.6	122.0	113.0	127.4
7	DGHH 1658 BG II	59.7	103.7	142.1	150.9	112.0	44.0	102.1
8	NBC 2020 BG II (ZC2)	46.4	113.4	84.4	133.0	104.0	87.0	94.7
9	PRCH 2799 Bt2 (ZC1) (normal)	67.8	55.1	50.1	83.5	118.0	74.0	74.8
	CD @ 5%	16.4	31.6	20.8	28.4			
	CV%	15.1	13.8	10.9	13.1			

Table: Lint Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	6.2	6.5	6.1	5.9	5.4	5.8	6.0
2	DC5302 BGII	5.3	6.1	6.2	5.5	6.8	6.0	6.0
3	NBC 29 BGII	5.7	6.6	8.1	6.6	5.8	6.6	6.6
4	RSCH-999 BGII	6.7	4.5	5.1	6.3	6.4	6.2	5.9
5	Indam-2412 BGII	5.4	5.5	5.2	5.3	5.4	5.4	5.4
6	ACH 41-2 BGII	5.5	5.3	6.0	5.0	6.1	7.1	5.8
7	DGHH 1658 BG II	5.4	8.0	6.3	5.4	5.0	6.2	6.1
8	NBC 2020 BG II (ZC2)	5.3	5.3	5.7	5.6	5.4	5.8	5.5
9	PRCH 2799 Bt2 (ZC1) (normal)	5.7	6.3	6.3	5.9	5.9	6.1	6.0
	CD @ 5%	0.8	1.3					
	CV%	8.4	12.0					



Table: Seed Index (g) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	11.5	12.0	10.3	9.5	11.2	10.1	10.8
2	DC5302 BGII	10.2	12.7	10.3	9.4	10.6	10.2	10.6
3	NBC 29 BGII	11.3	13.3	14.2	11.7	11.4	10.7	12.1
4	RSCH-999 BGII	12.3	11.7	10.8	10.4	10.5	11.1	11.1
5	Indam-2412 BGII	11.3	11.3	10.8	9.5	10.3	9.8	10.5
6	ACH 41-2 BGII	10.2	9.7	10.6	8.3	10.6	11.5	10.2
7	DGHH 1658 BG II	9.7	12.7	9.8	8.7	11.8	10.1	10.5
8	NBC 2020 BG II (ZC2)	11.8	12.0	12.3	9.9	12.3	10.3	11.4
9	PRCH 2799 Bt2 (ZC1) (normal)	10.5	11.0	10.1	9.9	12.1	10.1	10.6
	CD @ 5%	1.4	NS					
	CV%	7.4	13.7					

Table: Ginning outturn (%) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	35.0	35.1	37.2	38.3	33.7	36.6	36.0
2	DC5302 BGII	34.3	32.5	37.5	37.0	40.8	37.0	36.5
3	NBC 29 BGII	33.2	33.2	36.3	36.0	35.2	38.0	35.3
4	RSCH-999 BGII	35.2	28.0	32.2	37.7	35.6	35.9	34.1
5	Indam-2412 BGII	32.3	32.5	32.7	35.6	37.1	35.6	34.3
6	ACH 41-2 BGII	35.2	35.3	36.3	37.7	36.3	38.1	36.5
7	DGHH 1658 BG II	36.0	38.7	39.1	38.4	35.5	37.9	37.6
8	NBC 2020 BG II (ZC2)	31.2	30.6	31.6	36.3	36.2	36.2	33.7
9	PRCH 2799 Bt2 (ZC1) (normal)	35.3	36.5	38.6	37.5	34.9	37.6	36.7
	CD @ 5%	1.8	1.1				1.3	
	CV%	3.0	1.9				2.4	



Table: Upper Half Mean Length (mm) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	29.1	29.6	29.4	27.8	29.4	29.1
2	DC5302 BGII	29.3	29.9	30.6	28.5	28.6	29.4
3	NBC 29 BGII	30.2	28.7	30.5	28.3	28.7	29.3
4	RSCH-999 BGII	30.5	33.6	31.4	28.6	29.3	30.7
5	Indam-2412 BGII	30.4	30.4	29.2	28.7	28.8	29.5
6	ACH 41-2 BGII	28.4	29.4	29.3	26.4	27.4	28.2
7	DGHH 1658 BG II	27.0	26.6	27.5	25.0	26.4	26.5
8	NBC 2020 BG II (ZC2)	31.6	32.2	30.7	27.8	29.1	30.3
9	PRCH 2799 Bt2 (ZC1) (normal)	29.8	30.8	28.5	27.2	28.7	29.0

Table: Uniformity index under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	85.0	87.0	83.0	83.0	85.0	84.6
2	DC5302 BGII	83.0	87.0	86.0	82.0	84.0	84.4
3	NBC 29 BGII	86.0	85.0	87.0	84.0	85.0	85.4
4	RSCH-999 BGII	84.0	87.0	83.0	81.0	83.0	83.6
5	Indam-2412 BGII	84.0	84.0	83.0	83.0	84.0	83.6
6	ACH 41-2 BGII	84.0	84.0	85.0	82.0	84.0	83.8
7	DGHH 1658 BG II	83.0	83.0	85.0	81.0	84.0	83.2
8	NBC 2020 BG II (ZC2)	84.0	88.0	86.0	84.0	85.0	85.4
9	PRCH 2799 Bt2 (ZC1) (normal)	85.0	88.0	85.0	82.0	84.0	84.8

Table: Micronaire under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	5.0	5.2	4.1	3.9	4.2	4.5
2	DC5302 BGII	4.6	4.9	4.0	2.9	3.6	4.0
3	NBC 29 BGII	4.3	5.2	4.2	3.9	4.2	4.4
4	RSCH-999 BGII	4.2	3.8	3.2	3.1	3.8	3.6
5	Indam-2412 BGII	4.2	5.2	3.9	3.6	4.1	4.0
6	ACH 41-2 BGII	5.0	5.2	4.0	3.7	4.2	4.4
7	DGHH 1658 BG II	5.3	5.5	4.8	4.5	4.9	5.0
8	NBC 2020 BG II (ZC2)	4.4	4.8	3.8	3.7	3.7	4.1
9	PRCH 2799 Bt2 (ZC1) (normal)	4.6	5.0	4.6	4.9	4.2	4.7



Table: Tenacity under HVI Mode in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	28.6	30.6	30.2	28.0	27.4	29.0
2	DC5302 BGII	31.1	32.0	30.0	27.6	27.9	29.7
3	NBC 29 BGII	32.4	31.2	31.5	29.4	28.2	30.5
4	RSCH-999 BGII	30.7	32.9	30.1	27.0	27.4	29.6
5	Indam-2412 BGII	32.0	31.5	30.9	29.3	28.2	30.4
6	ACH 41-2 BGII	30.0	29.9	30.7	27.2	26.5	28.9
7	DGHH 1658 BG II	27.9	26.9	27.4	25.1	26.0	26.7
8	NBC 2020 BG II (ZC2)	31.1	35.1	32.0	28.5	28.4	31.0
9	PRCH 2799 Bt2 (ZC1) (normal)	29.1	33.6	27.5	27.4	29.2	29.4

Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	14.75	8.30	8.94	8.70	19.30	25.74	14.29
2	DC5302 BGII	17.60	12.24	12.87	10.97	22.06	25.66	16.90
3	NBC 29 BGII	17.09	10.76	11.13	8.11	18.21	27.25	15.43
4	RSCH-999 BGII	19.61	9.77	14.39	11.33	22.60	24.73	17.07
5	Indam-2412 BGII	12.63	14.96	8.63	8.48	16.34	21.54	13.76
6	ACH 41-2 BGII	26.12	14.56	14.12	11.09	20.71	33.76	20.06
7	DGHH 1658 BG II	12.92	8.09	9.50	9.20	15.40	15.34	11.74
8	NBC 2020 BG II (ZC2)	11.89	9.23	9.16	8.05	17.50	23.80	13.27
9	PRCH 2799 Bt2 (ZC1) (normal)	13.89	11.85	5.60	8.77	15.52	22.37	13.00
	CD @ 5%	4.03	2.91	2.36				
	CV%	14.29	15.18	13.26				



Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean
1	PRCH 2799 Bt2 (ZC1)	12.29	16.72	16.13	3.22	23.78	2.36	12.42
2	DC5302 BGII	11.14	16.25	22.07	3.28	25.95	3.24	13.66
3	NBC 29 BGII	15.20	11.63	21.65	3.15	21.42	3.44	12.75
4	RSCH-999 BGII	14.23	9.68	20.81	3.20	26.09	1.86	12.65
5	Indam-2412 BGII	11.32	11.09	16.83	3.46	19.40	1.75	10.64
6	ACH 41-2 BGII	8.00	6.84	16.85	3.31	25.50	2.29	10.47
7	DGHH 1658 BG II	10.29	9.30	13.26	3.40	19.22	1.30	9.46
8	NBC 2020 BG II (ZC2)	9.95	10.50	17.22	3.29	22.10	2.62	10.95
9	PRCH 2799 Bt2 (ZC1) (normal)	12.86	4.56	14.45	3.24	20.80	3.57	9.91
	CD @ 5%	3.59	2.44	3.23				
	CV%	17.74	13.15	10.72				

Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

S. No.	Entries	Junagadh	Talod	Rahuri	Khandwa	Himmatnagar (Dhanalaxmi)	Gangapur (Ajeet)	Mean	Rank	% Inc over best check
1	PRCH 2799 Bt2 (ZC1)	27.04	25.02	25.07	11.92	43.15	28.10	26.72	5	0.0
2	DC5302 BGII	28.75	28.49	34.93	14.24	47.97	28.90	30.55	1	14.3
3	NBC 29 BGII	32.29	22.39	32.77	11.26	39.62	30.69	28.17	4	5.4
4	RSCH-999 BGII	33.84	19.45	35.20	14.52	48.71	26.59	29.72	3	11.2
5	Indam-2412 BGII	23.95	26.05	25.46	11.94	35.78	23.29	24.41	6	-8.6
6	ACH 41-2 BGII	34.12	21.40	30.97	14.41	46.23	36.05	30.53	2	14.3
7	DGHH 1658 BG II	23.21	17.38	22.76	12.60	34.60	16.64	21.20	9	-20.7
8	NBC 2020 BG II (ZC2)	21.83	19.74	26.38	11.34	39.62	26.42	24.22	7	-9.4
9	PRCH 2799 Bt2 (ZC1) (normal)	26.75	16.41	20.06	12.02	36.30	25.94	22.91	8	-14.2
	CD @ 5%	4.00	3.27	3.18	2.27		4.17			
	CV%	8.26	8.66	6.64	11.95		10.59			



Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions –Aphid

Name of Entry	Aphid(Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	6.30	-	2.07	8.96	-	-	5.77	BETL
DC5302 BGII	8.50	-	2.33	11.44	-	-	7.43	BETL
NBC 29 BGII	8.80	-	2.27	10.33	-	-	7.13	BETL
RSCH-999 BGII	6.03	-	2.20	11.09	-	-	6.44	BETL
Indam-2412 BGII	7.90	-	2.36	10.64	-	-	6.97	BETL
ACH 41-2 BGII	6.97	-	2.24	10.91	-	-	6.71	BETL
DGHH 1658 BG II	6.67	-	2.24	12.64	-	-	7.19	BETL
NBC 2020 BG II (ZC2)	9.30	-	2.31	10.49	-	-	7.37	BETL
PRCH-2799 BG-II	7.40	-	2.16	11.47	-	-	7.01	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	5.90	-	1.80	2.59	-	-	3.43	BETL
DC5302 BGII	5.23	-	1.62	1.87	-	-	2.91	BETL
NBC 29 BGII	6.97	-	1.53	2.13	-	-	3.54	BETL
RSCH-999 BGII	8.43	-	1.62	1.89	-	-	3.98	BETL
Indam-2412 BGII	7.90	-	1.44	1.82	-	-	3.72	BETL
ACH 41-2 BGII	5.50	-	1.31	1.77	-	-	2.86	BETL
DGHH 1658 BG II	7.40	-	1.51	2.02	-	-	3.64	BETL
NBC 2020 BG II (ZC2)	6.53	-	1.49	1.96	-	-	3.33	BETL
PRCH-2799 BG-II	6.13	-	1.36	1.91	-	-	3.13	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	-	I	
DC5302 BGII	II	-	I	I	-	-	I	
NBC 29 BGII	II	-	I	I	-	-	I	
RSCH-999 BGII	II	-	I	I	-	-	I	
Indam-2412 BGII	II	-	I	I	-	-	I	
ACH 41-2 BGII	II	-	I	I	-	-	I	
DGHH 1658 BG II	II	-	I	I	-	-	I	
NBC 2020 BG II (ZC2)	II	-	I	I	-	-	I	
PRCH-2799 BG-II	II	-	I	I	-	-	I	

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	8.73	-	1.84	9.60	-	-	6.73	BETL
DC5302 BGII	12.17	-	1.91	9.02	-	-	7.70	BETL
NBC 29 BGII	9.43	-	1.91	10.16	-	-	7.17	BETL
RSCH-999 BGII	11.70	-	2.09	9.78	-	-	7.86	BETL
Indam-2412 BGII	7.97	-	2.20	9.04	-	-	6.40	BETL
ACH 41-2 BGII	8.37	-	2.16	10.13	-	-	6.89	BETL
DGHH 1658 BG II	9.63	-	2.07	8.93	-	-	6.88	BETL
NBC 2020 BG II (ZC2)	10.97	-	2.16	10.13	-	-	7.75	BETL
PRCH-2799 BG-II	10.37	-	2.16	10.44	-	-	7.66	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	5.93	-	0.76	1.40	-	-	2.70	BETL
DC5302 BGII	7.83	-	0.67	1.47	-	-	3.32	BETL
NBC 29 BGII	7.30	-	0.62	1.40	-	-	3.11	BETL
RSCH-999 BGII	5.20	-	0.62	1.56	-	-	2.46	BETL
Indam-2412 BGII	8.17	-	0.64	1.38	-	-	3.40	BETL
ACH 41-2 BGII	8.67	-	0.62	1.49	-	-	3.59	BETL
DGHH 1658 BG II	5.43	-	0.73	1.31	-	-	2.49	BETL
NBC 2020 BG II (ZC2)	6.50	-	0.69	1.53	-	-	2.91	BETL
PRCH-2799 BG-II	6.80	-	0.76	1.38	-	-	2.98	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	2.00	-	-	0.67	
DC5302 BGII	0.00	-	0.00	2.07	-	-	0.69	
NBC 29 BGII	0.00	-	0.00	2.09	-	-	0.70	
RSCH-999 BGII	0.00	-	0.00	2.04	-	-	0.68	
Indam-2412 BGII	0.00	-	0.00	2.09	-	-	0.70	
ACH 41-2 BGII	0.00	-	0.00	2.00	-	-	0.67	
DGHH 1658 BG II	0.00	-	0.00	2.11	-	-	0.70	
NBC 2020 BG II (ZC2)	0.00	-	0.00	2.20	-	-	0.73	
PRCH-2799 BG-II	0.00	-	0.00	1.93	-	-	0.64	

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./ 5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL



JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	2.40	-	0.16	2.11	-	-	1.56	AETL
DC5302 BGII	3.65	-	0.00	2.22	-	-	1.96	AETL
NBC 29 BGII	2.80	-	0.00	2.44	-	-	1.75	AETL
RSCH-999 BGII	2.20	-	0.00	2.22	-	-	1.47	AETL
Indam-2412 BGII	3.95	-	0.31	2.00	-	-	2.09	AETL
ACH 41-2 BGII	2.95	-	0.22	2.11	-	-	1.76	AETL
DGHH 1658 BG II	4.55	-	0.00	1.78	-	-	2.11	AETL
NBC 2020 BG II (ZC2)	4.25	-	0.00	2.44	-	-	2.23	AETL
PRCH-2799 BG-II	3.20	-	0.31	2.22	-	-	1.91	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # data based on 2 observation

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	7.44	-	0.67	18.89	-	-	9.00	BETL
DC5302 BGII	9.90	-	0.44	21.11	-	-	10.48	AETL
NBC 29 BGII	7.90	-	0.89	16.67	-	-	8.48	BETL
RSCH-999 BGII	7.07	-	0.78	20.00	-	-	9.28	BETL
Indam-2412 BGII	10.25	-	1.11	21.11	-	-	10.82	AETL
ACH 41-2 BGII	8.73	-	0.67	20.00	-	-	9.80	BETL
DGHH 1658 BG II	11.92	-	0.44	14.44	-	-	8.94	BETL
NBC 2020 BG II (ZC2)	10.58	-	0.89	17.78	-	-	9.75	BETL
PRCH-2799 BG-II	9.38	-	0.78	14.44	-	-	8.20	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # data based on 2 observatio

Table: Advanced H X H(Compact) trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	11.11	-	16.18	14.13	-	-	13.81	
DC5302 BGII	13.53	-	15.84	25.79	-	-	18.39	
NBC 29 BGII	11.82	-	5.01	16.43	-	-	11.09	
RSCH-999 BGII	10.04	-	3.53	16.55	-	-	10.04	
Indam-2412 BGII	14.31	-	19.18	14.98	-	-	16.16	
ACH 41-2 BGII	12.00	-	4.84	22.26	-	-	13.03	
DGHH 1658 BG II	16.00	-	13.81	16.50	-	-	15.43	
NBC 2020 BG II (ZC2)	15.36	-	7.88	20.26	-	-	14.50	
PRCH-2799 BG-II	12.89	-	4.85	15.69	-	-	11.15	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	5.35	-	9.85	5.53	-	-	6.91	
DC5302 BGII	7.60	-	9.58	10.56	-	-	9.25	
NBC 29 BGII	5.72	-	2.68	6.86	-	-	5.09	
RSCH-999 BGII	4.99	-	2.40	5.71	-	-	4.37	
Indam-2412 BGII	8.15	-	12.89	6.04	-	-	9.03	
ACH 41-2 BGII	6.24	-	2.46	7.62	-	-	5.44	
DGHH 1658 BG II	9.76	-	6.81	7.26	-	-	7.94	
NBC 2020 BG II (ZC2)	8.81	-	4.33	6.88	-	-	6.67	
PRCH-2799 BG-II	6.64	-	3.59	6.71	-	-	5.64	

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Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – No. of Sprays for Insect- Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	7.00	-	4.00	5.00	-	-	5.33	
DC5302 BGII	7.00	-	4.00	5.00	-	-	5.33	
NBC 29 BGII	7.00	-	4.00	5.00	-	-	5.33	
RSCH-999 BGII	7.00	-	4.00	5.00	-	-	5.33	
Indam-2412 BGII	7.00	-	4.00	5.00	-	-	5.33	
ACH 41-2 BGII	7.00	-	4.00	5.00	-	-	5.33	
DGHH 1658 BG II	7.00	-	4.00	5.00	-	-	5.33	
NBC 2020 BG II (ZC2)	7.00	-	4.00	5.00	-	-	5.33	
PRCH-2799 BG-II	7.00	-	4.00	5.00	-	-	5.33	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 5 (a) Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids– Irrigated (AET-I Compact IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): protected conditions																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		Internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
4	52101	PRCH 2799 Bt2 (ZC1)	14.3	R	1.2	R	13.5	R	18.7	R	17.8	R	0.0	DF	0.0	DF	4.2	R	11.8	R	3.3	R	0.0	DF
8	52102	DC5302 BGII	18.8	R	2.0	R	20.0	R	11.3	R	15.6	R	0.0	DF	0.0	DF	5.8	R	10.5	R	12.2	R	0.0	DF
1	52103	NBC 29 BGII	20.0	R	0.8	R	15.0	R	10.8	R	20.0	R	0.0	DF	0.0	DF	5.0	R	0.0	DF	5.0	R	0.0	DF
3	52104	RSCH-999 BGII	22.8	R	0.8	R	14.3	R	11.7	R	24.5	R	0.0	DF	0.0	DF	7.5	R	13.3	R	0.0	DF	0.0	DF
5	52105	Indam-2412 BGII	15.3	R	0.5	R	14.2	R	12.0	R	22.2	R	0.0	DF	0.0	DF	9.8	R	0.0	DF	7.5	R	0.0	DF
7	52106	ACH 41-2 BGII	18.8	R	3.2	R	15.3	R	26.2	MR	17.8	R	0.0	DF	0.0	DF	4.2	R	11.7	R	17.1	R	0.0	DF
2	52107	DGHH 1658 BG II	14.7	R	0.2	R	12	R	10.2	R	15.6	R	0.0	DF	0.0	DF	11.5	R	9.4	R	9.2	R	0.0	DF
6	52108	NBC 2020 BG II (ZC2)	18.8	R	0.2	R	15	R	11.2	R	20.0	R	0.0	DF	0.0	DF	6.7	R	4.5	R	4.8	R	0.0	DF



Table 5(b) Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids– Irrigated (AET-I Compact IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected condition							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	PDI	PDI	PDI	PDI	PDI	PDI	PDI
4	52101	PRCH 2799 Bt2 (ZC1)	27.50	MR	30.0	MR	15.0	R	0.0	DF
8	52102	DC5302 BGII	42.50	MR	27.5	MR	12.5	R	0.0	DF
1	52103	NBC 29 BGII	45.00	MR	15.0	R	47.5	MR	0.0	DF
3	52104	RSCH-999 BGII	47.50	MR	17.5	R	37.5	MR	0.0	DF
5	52105	Indam-2412 BGII	75.00	MS	15.0	R	40.0	MR	10.0	R
7	52106	ACH 41-2 BGII	42.50	MR	7.5	R	57.5	MS	0.0	DF
2	52107	DGHH 1658 BG II	32.50	MR	5.0	R	25.0	R	0.0	DF
6	52108	NBC 2020 BG II (ZC2)	30.00	MR	10.0	R	55.0	MR	0.0	DF



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid(Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	6.53	-	2.33	13.02	-	-	7.30	BETL
DC5302 BGII	8.70	-	3.00	15.60	-	-	9.10	BETL
NBC 29 BGII	9.03	-	2.87	13.84	-	-	8.58	BETL
RSCH-999 BGII	6.23	-	3.00	14.82	-	-	8.02	BETL
Indam-2412 BGII	8.17	-	3.00	14.62	-	-	8.60	BETL
ACH 41-2 BGII	7.20	-	2.67	14.27	-	-	8.04	BETL
DGHH 1658 BG II	6.90	-	2.60	15.89	-	-	8.46	BETL
NBC 2020 BG II (ZC2)	9.50	-	3.20	14.33	-	-	9.01	BETL
PRCH-2799 BG-II	7.57	-	2.67	14.93	-	-	8.39	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	6.07	-	2.87	4.69	-	-	4.54	BETL
DC5302 BGII	5.40	-	2.87	4.09	-	-	4.12	BETL
NBC 29 BGII	7.13	-	2.60	4.51	-	-	4.75	BETL
RSCH-999 BGII	8.57	-	2.93	4.04	-	-	5.18	BETL
Indam-2412 BGII	8.07	-	3.20	4.07	-	-	5.11	BETL
ACH 41-2 BGII	5.73	-	2.93	3.89	-	-	4.19	BETL
DGHH 1658 BG II	7.53	-	2.40	3.93	-	-	4.62	BETL
NBC 2020 BG II (ZC2)	6.70	-	2.80	3.84	-	-	4.45	BETL
PRCH-2799 BG-II	6.30	-	2.93	3.96	-	-	4.40	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	II	-	I	I	-	-	I	
DC5302 BGII	II	-	I	I	-	-	I	
NBC 29 BGII	II	-	I	I	-	-	I	
RSCH-999 BGII	II	-	II	I	-	-	II	
Indam-2412 BGII	II	-	I	I	-	-	I	
ACH 41-2 BGII	II	-	I	I	-	-	I	
DGHH 1658 BG II	II	-	I	I	-	-	I	
NBC 2020 BG II (ZC2)	II	-	I	I	-	-	I	
PRCH-2799 BG-II	II	-	I	I	-	-	I	

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions –

Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	8.97	-	3.00	13.29	-	-	8.42	BETL
DC5302 BGII	12.43	-	3.40	12.56	-	-	9.46	BETL
NBC 29 BGII	9.70	-	3.60	13.69	-	-	9.00	BETL
RSCH-999 BGII	11.93	-	3.87	13.22	-	-	9.67	BETL
Indam-2412 BGII	8.23	-	2.93	12.47	-	-	7.88	BETL
ACH 41-2 BGII	8.63	-	2.67	13.73	-	-	8.34	BETL
DGHH 1658 BG II	9.87	-	3.20	12.73	-	-	8.60	BETL
NBC 2020 BG II (ZC2)	11.23	-	3.93	13.91	-	-	9.69	BETL
PRCH-2799 BG-II	10.63	-	3.27	13.73	-	-	9.21	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	6.13	-	0.07	2.71	-	-	2.97	BETL
DC5302 BGII	8.00	-	0.13	2.71	-	-	3.61	BETL
NBC 29 BGII	7.47	-	0.20	2.78	-	-	3.48	BETL
RSCH-999 BGII	5.40	-	0.00	3.24	-	-	2.88	BETL
Indam-2412 BGII	8.33	-	0.33	2.82	-	-	3.83	BETL
ACH 41-2 BGII	8.87	-	0.13	3.13	-	-	4.04	BETL
DGHH 1658 BG II	5.67	-	0.20	2.80	-	-	2.89	BETL
NBC 2020 BG II (ZC2)	6.70	-	0.20	2.98	-	-	3.29	BETL
PRCH-2799 BG-II	7.03	-	0.13	2.84	-	-	3.34	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00		0.00	2.91	-		0.97	
DC5302 BGII	0.00		0.00	2.96	-		0.99	
NBC 29 BGII	0.00		0.00	3.02	-		1.01	
RSCH-999 BGII	0.00		0.00	3.02	-		1.01	
Indam-2412 BGII	0.00		0.00	3.00	-		1.00	
ACH 41-2 BGII	0.00		0.00	3.13	-		1.04	
DGHH 1658 BG II	0.00		0.00	3.16	-		1.05	
NBC 2020 BG II (ZC2)	0.00		0.00	3.13	-		1.04	
PRCH-2799 BG-II	0.00		0.00	3.00	-		1.00	

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./ 5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

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Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions –
Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	2.70	-	0.00	2.83	-	-	1.84	AETL
DC5302 BGII	3.90	-	0.07	3.33	-	-	2.43	AETL
NBC 29 BGII	3.25	-	0.00	3.33	-	-	2.19	AETL
RSCH-999 BGII	2.50	-	0.07	3.33	-	-	1.97	AETL
Indam-2412 BGII	4.65	-	0.13	3.00	-	-	2.59	AETL
ACH 41-2 BGII	3.25	-	0.00	3.00	-	-	2.08	AETL
DGHH 1658 BG II	4.95	-	0.00	2.50	-	-	2.48	AETL
NBC 2020 BG II (ZC2)	4.60	-	0.00	3.00	-	-	2.53	AETL
PRCH-2799 BG-II	3.50	-	0.00	2.50	-	-	2.00	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions –
Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	0.00	-	0.00	0.00	-	-	0.00	BETL
DC5302 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 29 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
RSCH-999 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
Indam-2412 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
ACH 41-2 BGII	0.00	-	0.00	0.00	-	-	0.00	BETL
DGHH 1658 BG II	0.00	-	0.00	0.00	-	-	0.00	BETL
NBC 2020 BG II (ZC2)	0.00	-	0.00	0.00	-	-	0.00	BETL
PRCH-2799 BG-II	0.00	-	0.00	0.00	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	7.67	-	0.00	26.67	-	-	11.45	AETL
DC5302 BGII	10.12	-	3.33	26.67	-	-	13.37	AETL
NBC 29 BGII	8.14	-	0.00	22.22	-	-	10.12	AETL
RSCH-999 BGII	7.30	-	6.67	27.78	-	-	13.91	AETL
Indam-2412 BGII	10.47	-	10.00	28.89	-	-	16.45	AETL
ACH 41-2 BGII	8.95	-	0.00	26.67	-	-	11.87	AETL
DGHH 1658 BG II	12.14	-	3.33	22.22	-	-	12.57	AETL
NBC 2020 BG II (ZC2)	10.80	-	0.00	22.22	-	-	11.01	AETL
PRCH-2799 BG-II	9.61	-	6.67	18.89	-	-	11.72	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations

Table: Advanced H X H(Compact) trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	11.55	-	2.76	18.95	-	-	11.09	
DC5302 BGII	13.97	-	7.19	35.92	-	-	19.03	
NBC 29 BGII	12.27	-	11.03	20.05	-	-	14.45	
RSCH-999 BGII	10.49	-	3.17	20.20	-	-	11.29	
Indam-2412 BGII	14.75	-	7.63	19.73	-	-	14.04	
ACH 41-2 BGII	12.44	-	6.52	28.04	-	-	15.67	
DGHH 1658 BG II	16.43	-	17.50	22.29	-	-	18.74	
NBC 2020 BG II (ZC2)	15.78	-	15.15	23.64	-	-	18.19	
PRCH-2799 BG-II	13.35	-	11.11	20.82	-	-	15.10	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PRCH 2799 Bt2 (ZC1)	5.79	-	1.90	7.15	-	-	4.94	
DC5302 BGII	8.02	-	4.14	13.27	-	-	8.47	
NBC 29 BGII	6.16	-	6.25	7.72	-	-	6.71	
RSCH-999 BGII	5.43	-	1.59	7.01	-	-	4.68	
Indam-2412 BGII	8.58	-	5.08	6.93	-	-	6.86	
ACH 41-2 BGII	6.67	-	4.89	8.99	-	-	6.85	
DGHH 1658 BG II	10.19	-	9.17	8.43	-	-	9.26	
NBC 2020 BG II (ZC2)	9.23	-	7.58	8.30	-	-	8.37	
PRCH-2799 BG-II	7.08	-	7.34	7.82	-	-	7.42	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 5 (c) Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids– Irrigated (AET-I Compact IRR) under Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		Internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
4	52101	PRCH 2799 Bt2 (ZC1)	17.5	R	2.0	R	15.5	R	19.0	R	26.7	MR	0.0	DF	0.0	DF	7.2	R	26.0	MR	12.2	R	0.0	DF
8	52102	DC5302 BGII	19.0	R	2.5	R	21.0	R	12.5	R	26.7	MR	0.0	DF	0.0	DF	9.3	R	25.0	R	18.3	R	0.0	DF
1	52103	NBC 29 BGII	20.0	R	2.0	R	16.0	R	11.0	R	20.0	R	0.0	DF	0.0	DF	11.4	R	9.6	R	9.9	R	0.0	DF
3	52104	RSCH-999 BGII	23.5	R	1.0	R	15.5	R	13.5	R	26.7	MR	0.0	DF	0.0	DF	10.0	R	25.2	MR	9.0	R	0.0	DF
5	52105	Indam-2412 BGII	15.5	R	2.0	R	15.5	R	13.0	R	33.3	MR	0.0	DF	0.0	DF	30.5	MR	6.0	R	9.7	R	0.0	DF
7	52106	ACH 41-2 BGII	19.0	R	4.5	R	16.0	R	27.0	MR	20.0	R	0.0	DF	0.0	DF	8.3	R	25.7	MR	19.9	R	0.0	DF
2	52107	DGHH 1658 BG II	16.0	R	2.5	R	13.0	R	11.5	R	20.0	R	0.0	DF	0.0	DF	26.5	MR	32.0	MR	11.8	R	0.0	DF
6	52108	NBC 2020 BG II (ZC2)	20.5	R	1.5	R	18.0	R	12.5	R	26.7	MR	0.0	DF	0.0	DF	8.6	R	24.3	R	13.0	R	0.0	DF



Agronomic Evaluation

KHANDWA (NBC 29 BGII)

The agronomic investigation conducted at Khandwa under irrigated conditions revealed that seed cotton yield of pre released hybrid NBC 29 BGII varied significantly under different spacing and nutrient levels (Table 15). Among the spacing levels, 90 cm × 60 cm (S₂) recorded significantly higher mean seed cotton yield (2425 kg/ha). The results on nutrient levels applied on Soil Test Value (STV) basis revealed that application of 100 per cent N and PK (N₂) recorded significantly higher mean seed cotton yield (2291 kg/ha), followed by 75 per cent N and PK (2174 kg/ha). The lowest yield (1966 kg/ha) was recorded under 125 per cent N and PK (N₃). The interaction between spacing and nutrient levels (S × N) was also found to be significant. The highest seed cotton yield (2946 kg/ha) was recorded under the combination of 90 cm × 60 cm spacing with 100 per cent N and PK (S₂N₂), whereas the lowest yield (1844 kg/ha) was observed under 90 cm × 75 cm spacing with 125 per cent N and PK (S₃N₃).

Table 15. Seed cotton yield (kg/ha) of NBC 29 BGII as influenced by spacing levels and nutrient levels at Khandwa

Treatments	S ₁ : 90 x 45 cm	S ₂ : 90 x 60 cm	S ₃ : 90 X 75 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75% RDN	2219	2147	2156	2174	Spacing	203	426
N ₂ - 100% RDN	1940	2946	1985	2291	Nitrogen	203	426
N ₃ - 125% RDN	1872	2183	1844	1966	S X N	345	745
Mean (spacing)	2011	2425	1995				

Basic parameters: pH: 7.852, EC: 0.480 dSm⁻¹, OC (%): 0.571, Available N: 235 kg/ha, Available P₂O₅: 13.6 kg/ha, Available K₂O: 385 kg/ha, Recommended nutrients: 120:60:40 kg NPK/ha, Genotype: NBC 29 BGII, Environment: Irrigated, Total rainfall during cropping period: 866.5 mm

KHANDWA (DC5302 BGII)

The field experiment conducted at Khandwa to study the effect of spacing and nutrient levels on seed cotton yield of pre released Bt hybrid DC 5302 BGII and found that variation in yield under different treatments (Table 16) were non-significant. Among the spacing levels, 90 cm × 60 cm (S₂) recorded numerically higher mean seed cotton yield (2593 kg/ha). The lowest mean seed cotton yield was recorded under 90 cm × 45 cm spacing (1759 kg/ha), which was closely followed by 90 cm × 75 cm (1793 kg/ha). With respect to nutrient levels applied on Soil Test Value (STV) basis, application of 100 per cent NPK (N₂) produced higher mean seed cotton yield (2320 kg/ha), followed by 75 per cent NPK (2197 kg/ha), while the lowest yield (1628 kg/ha) was recorded under 125 per cent NPK (N₃).



Table 16. Seed cotton yield (kg/ha) of DC5302 BGII as influenced by spacing levels and nutrient levels at Khandwa

Treatments	S ₁ :90 X 45 cm	S ₂ : 90 X 60 cm	S ₃ : 90 X 75 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75% RDN	2105	2510	1977	2197	Spacing	43 1	NS
N ₂ - 100% RDN	2443	2657	1859	2320	Nitrogen	43 1	NS
N ₃ - 125% RDN	730	2613	1542	1628	S X N	73 2	NS
Mean (spacing)	1759	2593	1793				

Basic parameters: pH: 7.852, EC: 0.480 dSm⁻¹, OC (%): 0.571, Available N: 235 kg/ha, Available P₂O₅: 13.6 kg/ha, Available K₂O: 385 kg/ha, Recommended nutrients: 150:60:40 kg NPK/ha, Genotype: DC5302 BGII , Environment: Irrigated, Total rainfall during cropping period: 866.5 mm

KHANDWA (RSCH-999 BGII)

The results of agronomic requirement studies conducted at Khandwa (Table 17) to evaluate the effect of different spacing and nitrogen levels (based on STV) on seed cotton yield revealed that among the different spacing levels, significantly higher seed cotton yield was recorded under S₂ – 90 × 60 cm (2584 kg/ha), which was found to be on par with S₁ – 90 × 45 cm (2296 kg/ha). The significantly lowest yield was recorded under the widest spacing of 90 × 75 cm. The results by nutrient levels found that application of N₂. 100% NPK on the basis of STV recorded significantly higher seed cotton yield (2557 kg ha and it was on par with N₃ .125% N and PK on the basis of STV (2212 kg/ha). The lowest yield was recorded with 75% NPK application. The interaction effect between spacing and nitrogen levels (S × N) was found to be significant. Among the treatment combinations, the highest seed cotton yield was recorded with 100% NPK under 90 × 60 cm spacing (2841 kg/ha).

Table 17. Seed cotton yield (kg/ha) of RSCH-999 BGII as influenced by spacing levels and nutrient levels at Khandwa

Treatments	S ₁ :90 X 45 cm	S ₂ : 90 X 60 cm	S ₃ : 90 X 75 cm	Mean (Nitrogen)	ANOVA	SEd	CD (5%)
N ₁ - 75% RDN	1960	2434	2067	2154	Spacing	164.4 5	345.50
N ₂ - 100% RDN	2698	2841	2134	2557	Nitrogen	164.4 5	345.50
N ₃ - 125% RDN	2229	2478	1929	2212	S X N	279.6 5	475.4
Mean (spacing)	2296	2584	2043				

Basic parameters: pH: 7.852, EC: 0.480 dSm⁻¹, OC (%): 0.571, Available N: 235 kg/ha, Available P₂O₅: 13.6 kg/ha, Available K₂O: 385 kg/ha, Recommended nutrients: 150:60:40 kg NPK/ha, Genotype: RSCH-999 BGII, Environment: Irrigated, Total rainfall during cropping period: 866.5 mm



RAHURI (ACH 41-2 BG II)

The results of agronomic requirement studies conducted at Rahuri under irrigated conditions revealed that spacing had a significant influence on total seed cotton yield and yield-attributing characters of ACH 41-2 BG II pre-released compact cotton hybrid (Table 29). The crop sown at 90 × 15 cm spacing resulted in significantly higher total seed cotton yield of 2668 kg/ha as compared to wider spacings (2480 kg/ha at 90 × 30 cm and 2150 kg/ha at 90 × 60 cm). Nitrogen application significantly influenced total seed cotton yield and yield-contributing characters. Application of 100 per cent recommended dose of nitrogen (RDN) recorded a significantly higher total seed cotton yield of 2846 kg/ha. This treatment remained statistically at par with 125 per cent RDN, which recorded 2488 kg/ha. The interaction effect between spacing and nitrogen levels was found to be non-significant for total seed cotton yield and all yield-contributing characters.

Table 29. Total Seed Cotton Yield (kg/ha) of ACH 41-2 BG II as influenced by spacing levels and nutrient levels at Rahuri

Treatments	S1 – 90 × 15 cm	S2 – 90 × 30 cm	S3 – 90 × 60 cm	Mean	ANOVA	SE(d)	CD (5%)	CV
N1 – 75% RDN	2063	1957	1874	1965	Spacing	36	140	7.27
N2 – 100% RDN	3224	2945	2369	2846	Nitrogen	59	182	
N3 – 125% RDN	2717	2538	2208	2488	S × N	102	NS	
Mean	2668	2480	2150	2433				

Basic parameters: pH: 7.54, EC: 0.35 dSm⁻¹, OC (%): 0.55, Available N: 153.22 kg/ha, Available P₂O₅: 8.47 kg/ha, Available K₂O: 497.4 kg/ha, Recommended nutrients: 125:65:65 kg NPK/ha, Genotype: ACH 41-2 BG II, Environment: Irrigated, Total rainfall during cropping period: 1031.0 mm.

RAHURI (DGHH -1658 BG II)

The agronomic requirement study conducted at Rahuri under irrigated conditions revealed that spacing significantly influenced total seed cotton yield of DGHH-1658 BG II pre-released compact cotton hybrid (Table 30). The crop sown at 90 × 15 cm spacing recorded significantly higher total seed cotton yield of 2312 kg/ha, followed by 90 × 30 cm (2158 kg/ha) and 90 × 60 cm (1778 kg/ha). Nitrogen application also significantly influenced total seed cotton yield. Application of 100% RDN recorded significantly higher yield of 2453 kg/ha, which remained statistically at par with 125% RDN (2252 kg/ha) but was superior over 75% RDN (1543 kg/ha). The interaction effect (S × N) was non-significant.

Table 30. Total Seed cotton yield (kg/ha) of DGHH -1658 BG II is influenced by spacing levels and nutrient levels at Rahuri

Treatments	S1 – 90 × 15 cm	S2 – 90 × 30 cm	S3 – 90 × 60 cm	Mean (Nitrogen)	ANOVA	SE(d)	CD (5%)	CV
N1 – 75% RDN	1655	1591	1382	1543	Spacing	42	166	9.64
N2 – 100% RDN	2764	2645	1951	2453	Nitrogen	67	206	
N3 – 125% RDN	2517	2237	2002	2252	S × N	116	NS	
Mean (Spacing)	2312	2158	1778	2083				

Basic parameters: pH: 8.22, EC: 0.25 dSm⁻¹, OC (%): 0.64, Available N: 176.22 kg/ha, Available P₂O₅: 8.62 kg/ha, Available K₂O: 647.11 kg/ha, Recommended nutrients: 125:65:65 kg NPK/ha, Genotype: DGHH-1658 BG II, Environment: Irrigated, Total rainfall during cropping period: 1031.0 mm



Rahuri (Indam - 2412 BG II)

The study at Rahuri revealed that spacing significantly influenced total seed cotton yield of Indam-2412 BG II (Table 31). The crop sown at 90 × 15 cm spacing recorded the highest total seed cotton yield of 1767 kg/ha, followed by 90 × 30 cm (1684 kg/ha) and 90 × 60 cm (1524 kg/ha). Application of 100% RDN recorded significantly higher total seed cotton yield of 1796 kg/ha, which remained statistically at par with 125% RDN (1716 kg/ha) but was significantly superior over 75% RDN (1463 kg/ha). The interaction effect was non-significant.

Table 31. Total Seed cotton yield (kg/ha) of Indam - 2412 BG II is influenced by spacing levels and nutrient levels at Rahuri

Treatments	S1 – 90 × 15 cm	S2 – 90 × 30 cm	S3 – 90 × 60 cm	Mean (Nitrogen)	ANOVA	SE(d)	CD (5%)	CV
N1 – 75% RDN	1561	1395	1432	1463	Spacing	19	77	7.14
N2 – 100% RDN	1888	1879	1621	1796	Nitrogen	39	122	
N3 – 125% RDN	1852	1777	1519	1716	S × N	68	NS	
Mean (Spacing)	1767	1684	1524	1658				

Basic parameters: pH: 8.18, EC: 0.25 dSm⁻¹, OC (%): 0.54, Available N: 185.55 kg/ha, Available P₂O₅: 9.22 kg/ha, Available K₂O: 432.11 kg/ha, Recommended nutrients: 125:65:65 kg NPK/ha, Genotype: Indam-2412 BG II, Environment: Irrigated, Total rainfall during cropping period: 1031.0 mm



Combined Evaluation Trial of Hirsutum x Barbadense Hybrids

Constitution of Trial

The trial was constituted with five Hirsutum x Barbadense Bt cotton Hybrids containing MON 15985 event sponsored by various Private organization along with two different check hybrids as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	5	52111	NCHB 9959 Bt	
2	1	52112	MRC 6918 BG II (ZC 2)	Nuziveedu
3	7	52113	GBCH 2002 BGII	Green Gold Seeds
4	3	52114	ACHB 2111 BGII	Ankur Seeds Pvt. Limited
5	6	52115	US 781 BGII	Seedworks
6	2	52116	DACHB 71C17 BGII	Dharti Agrochemicals Pvt. Ltd.
7	4	52117	MRC 7918 BG II (ZC 1)	

The trial was conducted in five different locations viz., Banswara, Rahuri, Khandwa, Aurangabad (Green Gold), and Phulambiri (Ankur).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with four replications

Data recorded:

Biometric evaluation

Plant height (cm) at harvest in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Mean
1	NCHB 9959 Bt	151.0	220.1	174.3	229.0	193.6
2	MRC 6918 BG II (ZC 2)	132.0	186.7	106.7	172.4	149.5
3	GBCH 2002 BGII	163.3	216.2	163.3	210.0	188.2
4	ACHB 2111 BGII	145.3	185.5	132.3	209.3	168.1
5	US 781 BGII	152.7	186.8	141.0	190.4	167.7
6	DACHB 71C17 BGII	141.3	199.7	143.7	190.2	168.7
7	MRC 7918 BG II (ZC 1)	139.3	174.9	126.0	174.9	153.8
	CD @ 5%	13.7	24.7	10.3		
	CV%	5.3	8.2	4.2		



Number of monopodia in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	3.0	0.5	2.9	2.8	4.0	2.6
2	MRC 6918 BG II (ZC 2)	2.7	0.2	3.1	2.8	5.0	2.8
3	GBCH 2002 BGII	2.0	0.5	3.0	2.3	4.0	2.4
4	ACHB 2111 BGII	2.3	0.6	2.8	2.4	4.0	2.4
5	US 781 BGII	2.7	1.3	2.8	2.3	5.0	2.8
6	DACHB 71C17 BGII	1.7	0.9	2.9	2.2	4.0	2.3
7	MRC 7918 BG II (ZC 1)	2.3	0.9	2.7	2.7	4.0	2.5
	CD @ 5%	0.7		0.6			
	CV%	17.6		12.8			

Number of sympodia in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	34.3	23.8	13.9	21.9	53.3	29.4
2	MRC 6918 BG II (ZC 2)	34.7	20.1	11.3	21.3	58.3	29.1
3	GBCH 2002 BGII	41.0	24.3	13.0	22.7	57.0	31.6
4	ACHB 2111 BGII	35.4	23.8	13.3	22.1	51.0	29.1
5	US 781 BGII	42.0	23.3	12.8	21.4	49.3	29.8
6	DACHB 71C17 BGII	41.6	22.4	14.9	21.4	53.3	30.7
7	MRC 7918 BG II (ZC 1)	31.2	20.5	14.5	20.8	48.3	27.1
	CD @ 5%	6.0	3.3	1.1			
	CV%	9.0	9.4	4.7			



Boll weight (g) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	3.0	4.6	4.3	2.9	3.7
2	MRC 6918 BG II (ZC 2)	3.2	4.5	3.9	2.9	3.6
3	GBCH 2002 BGII	3.2	4.7	3.9	3.3	3.8
4	ACHB 2111 BGII	3.8	4.7	4.4	4.4	4.3
5	US 781 BGII	3.2	4.5	4.3	3.8	4.0
6	DACHB 71C17 BGII	3.3	4.7	4.2	4.3	4.1
7	MRC 7918 BG II (ZC 1)	3.1	4.0	3.8	3.8	3.7
	CD @ 5%	0.2	0.8	0.2		
	CV%	3.3	12.1	2.8		

Number of bolls / plant in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	41.2	35.5	40.5	71.3	55.0	48.7
2	MRC 6918 BG II (ZC 2)	40.1	29.7	31.9	62.8	57.7	44.4
3	GBCH 2002 BGII	38.7	39.9	30.5	78.7	60.0	49.6
4	ACHB 2111 BGII	45.1	28.7	38.3	66.1	61.0	47.8
5	US 781 BGII	58.9	34.8	41.1	79.0	50.3	52.8
6	DACHB 71C17 BGII	55.5	31.7	36.5	63.3	54.0	48.2
7	MRC 7918 BG II (ZC 1)	43.9	28.1	39.1	63.6	60.7	47.1
	CD @ 5%	6.3	6.1	4.3			
	CV%	7.7	12.0	6.7			



Number of bolls /sq.m. in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Mean
1	NCHB 9959 Bt	163.3	113.3	55.1	195.0	131.7
2	MRC 6918 BG II (ZC 2)	169.3	96.3	44.0	187.7	124.3
3	GBCH 2002 BGII	143.0	127.8	42.0	194.7	126.9
4	ACHB 2111 BGII	158.7	90.6	52.8	180.0	120.5
5	US 781 BGII	202.3	110.8	56.7	194.0	141.0
6	DACHB 71C17 BGII	214.0	104.0	50.4	197.0	141.4
7	MRC 7918 BG II (ZC 1)	175.7	88.6	53.9	185.0	125.8
	CD @ 5%	21.5	20.3	6.0		
	CV%	6.9	12.6	6.7		

Lint Index (g) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Mean
1	NCHB 9959 Bt	4.8	4.9	5.1	4.1	4.7
2	MRC 6918 BG II (ZC 2)	5.1	4.6	3.4	5.0	4.5
3	GBCH 2002 BGII	5.3	4.7	3.7	4.3	4.5
4	ACHB 2111 BGII	6.2	6.3	5.1	5.2	5.7
5	US 781 BGII	5.3	4.8	4.6	5.1	5.0
6	DACHB 71C17 BGII	5.0	6.1	5.4	5.2	5.4
7	MRC 7918 BG II (ZC 1)	5.4	5.5	3.7	4.5	4.8
	CD @ 5%	0.4				
	CV%	3.8				



Seed Index (g) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	11.2	11.9	11.2	9.7	10.6	10.9
2	MRC 6918 BG II (ZC 2)	12.2	12.0	8.8	10.0	11.1	10.8
3	GBCH 2002 BGII	12.1	11.6	8.9	9.7	10.8	10.6
4	ACHB 2111 BGII	14.0	14.9	12.2	10.7	14.0	13.2
5	US 781 BGII	11.0	10.7	9.6	10.0	11.1	10.5
6	DACHB 71C17 BGII	11.1	13.8	12.3	10.7	12.8	12.1
7	MRC 7918 BG II (ZC 1)	13.0	13.0	10.3	9.7	11.5	11.5
	CD @ 5%	0.5					
	CV%	2.1					

Ginning outturn (%) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	30.0	34.5	31.1	31.2	28.0	31.0
2	MRC 6918 BG II (ZC 2)	29.7	30.2	27.6	31.4	28.9	29.6
3	GBCH 2002 BGII	30.3	34.6	29.4	33.0	30.3	31.5
4	ACHB 2111 BGII	30.7	34.2	29.4	33.0	32.3	31.9
5	US 781 BGII	32.7	33.2	32.3	32.1	32.7	32.6
6	DACHB 71C17 BGII	31.0	31.1	30.3	32.2	31.1	31.1
7	MRC 7918 BG II (ZC 1)	29.3	30.3	26.2	32.2	28.9	29.4
	CD @ 5%	1.3					
	CV%	2.3					



Upper Half Mean Length (mm) under HVI Mode in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	35.9	34.9	36.2	34.4	35.4
2	MRC 6918 BG II (ZC 2)	37.7	34.8	35.7	32.6	35.2
3	GBCH 2002 BGII	34.6	33.7	34.2	31.3	33.5
4	ACHB 2111 BGII	37.9	34.4	35.1	33.4	35.2
5	US 781 BGII	35.0	30.8	33.6	33.1	33.1
6	DACHB 71C17 BGII	34.9	35.2	34.3	33.7	34.5
7	MRC 7918 BG II (ZC 1)	36.7	34.6	34.2	34.2	34.9

Uniformity index under HVI Mode in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Mean
1	NCHB 9959 Bt	88.0	84.0	85.0	85.7
2	MRC 6918 BG II (ZC 2)	87.0	84.0	86.0	85.7
3	GBCH 2002 BGII	85.0	83.0	83.0	83.7
4	ACHB 2111 BGII	88.0	82.0	87.0	85.7
5	US 781 BGII	86.0	83.0	85.0	84.7
6	DACHB 71C17 BGII	87.0	83.0	85.0	85.0
7	MRC 7918 BG II (ZC 1)	86.0	83.0	86.0	85.0



Micronaire under HVI Mode in I Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	3.5	2.9	2.8	2.6	3.0
2	MRC 6918 BG II (ZC 2)	3.6	2.8	2.5	2.7	2.9
3	GBCH 2002 BGII	3.7	2.9	2.9	3.0	3.1
4	ACHB 2111 BGII	3.9	3.1	3.5	3.5	3.5
5	US 781 BGII	3.9	3.2	3.6	3.5	3.6
6	DACHB 71C17 BGII	3.9	3.0	3.6	3.4	3.5
7	MRC 7918 BG II (ZC 1)	3.0	2.7	2.6	2.5	2.7

Tenacity under HVI Mode in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	40.4	38.4	35.5	32.4	36.7
2	MRC 6918 BG II (ZC 2)	39.0	36.1	39.9	34.1	37.3
3	GBCH 2002 BGII	36.5	33.7	33.5	30.1	33.5
4	ACHB 2111 BGII	38.9	32.8	34.6	31.8	34.5
5	US 781 BGII	38.5	32.3	35.6	31.9	34.6
6	DACHB 71C17 BGII	38.2	35.4	34.7	31.5	35.0
7	MRC 7918 BG II (ZC 1)	36.9	30.1	39.3	31.9	34.6

Seed Cotton Yield at 140 DAS (q/ha) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	6.60	11.41	6.94	8.32	15.96	9.85
2	MRC 6918 BG II (ZC 2)	9.43	7.81	3.84	15.72	23.67	12.09
3	GBCH 2002 BGII	6.44	11.36	5.19	21.20	26.08	14.05
4	ACHB 2111 BGII	6.28	8.13	3.60	15.20	28.39	12.32
5	US 781 BGII	6.86	10.92	6.26	20.24	28.01	14.46
6	DACHB 71C17 BGII	7.35	9.95	3.72	15.02	27.75	12.76
7	MRC 7918 BG II (ZC 1)	7.10	8.26	6.30	15.02	23.63	12.06
	CD @ 5%	1.27		1.09			
	CV%	9.95		12.42			



Seed Cotton Yield at 165 DAS (q/ha) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean
1	NCHB 9959 Bt	8.71	3.41	8.34	3.61	3.94	5.60
2	MRC 6918 BG II (ZC 2)	9.53	3.85	6.85	4.09	4.18	5.70
3	GBCH 2002 BGII	7.46	3.79	8.17	7.07	6.41	6.58
4	ACHB 2111 BGII	8.94	3.16	7.27	7.44	5.78	6.52
5	US 781 BGII	11.94	3.45	12.39	8.49	6.75	8.60
6	DACHB 71C17 BGII	9.92	3.50	7.47	7.38	6.25	6.90
7	MRC 7918 BG II (ZC 1)	9.24	3.21	8.06	3.96	4.93	5.88
	CD @ 5%	1.34		1.84			
	CV%	8.04		12.56			

Total Seed Cotton Yield (q/ha) in Hirsutum x Barbadense Hybrids trial

S. No.	Entries	Banswara	Khandwa	Rahuri	Aurangabad (Green Gold)	Phulambiri (Ankur)	Mean	Rank	% Inc over best check
1	NCHB 9959 Bt	15.31	14.82	15.28	11.92	19.90	15.45	7	-13.9
2	MRC 6918 BG II (ZC 2)	18.96	11.66	10.69	19.80	27.85	17.79	6	-0.9
3	GBCH 2002 BGII	13.90	15.15	13.36	28.28	32.49	20.64	2	15.0
4	ACHB 2111 BGII	15.22	11.29	10.87	22.64	34.17	18.84	4	4.9
5	US 781 BGII	18.79	14.37	18.65	28.73	34.76	23.06	1	28.5
6	DACHB 71C17 BGII	17.27	13.45	11.19	22.39	34.00	19.66	3	9.5
7	MRC 7918 BG II (ZC 1)	16.34	11.47	14.36	18.98	28.61	17.95	5	0.0
	CD @ 5%	2.32	2.48	2.79					
	CV%	7.87	12.14	11.88					



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pest

Table: Combined HXB trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	12.33	7.47	6.60	BETL
MRC 6918 BG II (ZC 2)	0.00	14.32	8.24	7.52	BETL
GBCH 2002 BGII	0.00	13.36	8.13	7.16	BETL
ACHB 2111 BGII	0.00	29.37	7.69	12.35	AETL
US 781 BGII	0.00	29.28	7.51	12.26	AETL
DACHB 71C17 BGII	0.00	12.36	8.49	6.95	BETL
MRC 7918 BG II (ZC 1)	0.00	15.36	7.78	7.71	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	7.44	8.36	4.93	6.91	AETL
MRC 6918 BG II (ZC 2)	5.56	11.96	4.50	7.34	AETL
GBCH 2002 BGII	8.44	6.36	3.96	6.25	AETL
ACHB 2111 BGII	7.89	8.65	4.22	6.92	AETL
US 781 BGII	6.55	4.36	4.51	5.14	BETL
DACHB 71C17 BGII	6.78	7.89	4.14	6.27	AETL
MRC 7918 BG II (ZC 1)	7.22	9.36	4.73	7.11	AETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	III	-	II	III	
MRC 6918 BG II (ZC 2)	II	-	I	II	
GBCH 2002 BGII	III	-	II	III	
ACHB 2111 BGII	III	-	II	III	
US 781 BGII	III	-	II	III	
DACHB 71C17 BGII	III	-	II	III	
MRC 7918 BG II (ZC 1)	III	-	II	III	

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given



Table: Combined HXB trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.00	-	5.33	2.67	BETL
MRC 6918 BG II (ZC 2)	0.00	-	5.31	2.66	BETL
GBCH 2002 BGII	0.00	-	5.40	2.70	BETL
ACHB 2111 BGII	0.00	-	5.49	2.74	BETL
US 781 BGII	0.00	-	5.02	2.51	BETL
DACHB 71C17 BGII	0.00	-	5.47	2.73	BETL
MRC 7918 BG II (ZC 1)	0.00	-	5.40	2.70	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given

Table: Combined HXB trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	3.56	13.36	2.13	6.35	BETL
MRC 6918 BG II (ZC 2)	1.67	15.26	1.82	6.25	BETL
GBCH 2002 BGII	4.11	11.36	1.96	5.81	BETL
ACHB 2111 BGII	4.00	12.72	1.73	6.15	BETL
US 781 BGII	2.11	5.36	1.84	3.11	BETL
DACHB 71C17 BGII	2.67	11.36	1.96	5.33	BETL
MRC 7918 BG II (ZC 1)	3.11	9.63	1.58	4.77	BETL

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Table: Combined HXB trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.16	-	1.07	0.61	
MRC 6918 BG II (ZC 2)	0.14	-	1.13	0.64	
GBCH 2002 BGII	0.18	-	1.20	0.69	
ACHB 2111 BGII	0.17	-	1.33	0.75	
US 781 BGII	0.16	-	1.00	0.58	
DACHB 71C17 BGII	0.18	-	1.13	0.66	
MRC 7918 BG II (ZC 1)	0.16	-	1.18	0.67	

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given



Table: Combined HXB trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given

Table: Combined HXB trial in Central Zone under Protected Conditions – Spotted/
Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given

Table: Combined HXB trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plant)				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given



Table: Combined HXB trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive sampling)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	13.62	2.11	5.24	AETL
MRC 6918 BG II (ZC 2)	0.00	13.65	1.78	5.14	AETL
GBCH 2002 BGII	0.00	14.82	2.33	5.72	AETL
ACHB 2111 BGII	0.00	16.66	1.56	6.07	AETL
US 781 BGII	0.00	10.96	2.11	4.36	AETL
DACHB 71C17 BGII	0.00	10.35	2.11	4.15	AETL
MRC 7918 BG II (ZC 1)	0.00	12.95	2.22	5.06	AETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given

Table: Combined HXB trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling				Remark
	BA	KH*	RA	Mean	
NCHB 9959 Bt	0.00	-	16.67	8.33	BETL
MRC 6918 BG II (ZC 2)	0.00	-	18.89	9.44	BETL
GBCH 2002 BGII	0.00	-	21.11	10.56	AETL
ACHB 2111 BGII	0.00	-	16.67	8.33	BETL
US 781 BGII	0.00	-	22.22	11.11	AETL
DACHB 71C17 BGII	0.00	-	20.00	10.00	AETL
MRC 7918 BG II (ZC 1)	0.00	-	21.11	10.56	AETL

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given



Table: Combined HXB trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)				
	BA	KH*	RA	Mean	Remark
NCHB 9959 Bt	0.00	-	10.78	5.39	
MRC 6918 BG II (ZC 2)	0.00	-	9.67	4.83	
GBCH 2002 BGII	0.00	-	11.02	5.51	
ACHB 2111 BGII	0.00	-	12.74	6.37	
US 781 BGII	0.00	-	14.83	7.41	
DACHB 71C17 BGII	0.00	-	12.91	6.46	
MRC 7918 BG II (ZC 1)	0.00	-	10.86	5.43	

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given

Table: Combined HXB trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)				
	BA	KH*	RA	Mean	Remark
NCHB 9959 Bt	0.00	-	3.59	1.80	
MRC 6918 BG II (ZC 2)	0.00	-	4.07	2.04	
GBCH 2002 BGII	0.00	-	4.13	2.06	
ACHB 2111 BGII	0.00	-	3.66	1.83	
US 781 BGII	0.00	-	4.26	2.13	
DACHB 71C17 BGII	0.00	-	3.60	1.80	
MRC 7918 BG II (ZC 1)	0.00	-	3.44	1.72	

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given

Table: Combined HXB trial in Central Zone under Protected Conditions – No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests				
	BA*	KH*	RA	Mean	Remark
NCHB 9959 Bt	-	-	5.00	5.00	
MRC 6918 BG II (ZC 2)	-	-	5.00	5.00	
GBCH 2002 BGII	-	-	5.00	5.00	
ACHB 2111 BGII	-	-	5.00	5.00	
US 781 BGII	-	-	5.00	5.00	
DACHB 71C17 BGII	-	-	5.00	5.00	
MRC 7918 BG II (ZC 1)	-	-	5.00	5.00	

BA-Banswara, KH- Khandwa, RA- Rahuri,* Data not given



Reaction to Diseases

Table 6 (a) Combined Evaluation Trial of Interspecific H X B Hybrids– Irrigated(CET- Hybrids IRR) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																			
			Rahuri												Khandwa							
			CoLS		GM		TSV		ALB		BLB		RR		CoLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
5	52111	NCHB 9959 Bt	0.0	DF	0.0	DF	11.8	R	8.3	R	3.3	R	0.0	DF	15.0	R	15.0	R	12.5	R	0.0	DF
1	52112	MRC 6918 BG II (ZC 2)	0.0	DF	0.0	DF	7.6	R	11.2	R	9.2	R	0.0	DF	12.5	R	10.0	R	27.5	MR	15.0	R
7	52113	GBCH 2002 BGII	0.0	DF	0.0	DF	12.0	R	11.0	R	4.5	R	0.0	DF	22.5	R	22.5	R	32.5	MR	0.0	DF
3	52114	ACHB 2111 BGII	0.0	DF	0.0	DF	12.2	R	12.2	R	6.7	R	0.0	DF	25.0	R	17.5	R	32.5	MR	12.5	R
6	52115	US 781 BGII	0.0	DF	0.0	DF	11.2	R	0.0	DF	0.0	DF	0.0	DF	17.5	R	22.5	R	17.5	R	0.0	DF
2	52116	DACHB 71C17 BGII	0.0	DF	0.0	DF	11.2	R	12.2	R	0.0	DF	0.0	DF	25.0	R	17.5	R	35.0	MR	0.0	DF
4	52117	MRC 7918 BG II (ZC 1)	0.0	DF	0.0	DF	10.9	R	0.0	DF	8.3	DF	0.0	DF	27.5	MR	17.5	R	32.5	MR	7.5	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pest

Table: Combined HXB trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	4.15	-	10.60	5.30	BETL
MRC 6918 BG II (ZC 2)	4.40	-	11.42	5.71	BETL
GBCH 2002 BGII	4.49	-	11.58	5.79	BETL
ACHB 2111 BGII	4.55	-	10.76	5.38	BETL
US 781 BGII	4.72	-	10.67	5.33	BETL
DACHB 71C17 BGII	4.09	-	11.69	5.84	BETL
MRC 7918 BG II (ZC 1)	3.77	-	10.67	5.33	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	10.55	-	7.76	9.16	AETL
MRC 6918 BG II (ZC 2)	7.67	-	7.27	7.47	AETL
GBCH 2002 BGII	11.44	-	6.49	8.97	AETL
ACHB 2111 BGII	11.00	-	7.16	9.08	AETL
US 781 BGII	8.78	-	7.27	8.02	AETL
DACHB 71C17 BGII	10.00	-	6.98	8.49	AETL
MRC 7918 BG II (ZC 1)	10.33	-	7.04	8.69	AETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	IV	-	II	III	
MRC 6918 BG II (ZC 2)	III	-	I	II	
GBCH 2002 BGII	IV	-	II	III	
ACHB 2111 BGII	IV	-	II	III	
US 781 BGII	III	-	II	III	
DACHB 71C17 BGII	IV	-	II	III	
MRC 7918 BG II (ZC 1)	IV	-	II	III	

BA-Banswara, KH- Khandwa, RA- Rahuri



Table: Combined HXB trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	8.22	4.11	BETL
MRC 6918 BG II (ZC 2)	0.00	-	8.64	4.32	BETL
GBCH 2002 BGII	0.00	-	8.67	4.33	BETL
ACHB 2111 BGII	0.00	-	8.47	4.23	BETL
US 781 BGII	0.00	-	8.22	4.11	BETL
DACHB 71C17 BGII	0.00	-	8.22	4.11	BETL
MRC 7918 BG II (ZC 1)	0.00	-	8.56	4.28	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	6.22	-	3.58	4.90	BETL
MRC 6918 BG II (ZC 2)	3.78	-	3.38	3.58	BETL
GBCH 2002 BGII	7.00	-	3.69	5.34	BETL
ACHB 2111 BGII	6.56	-	3.49	5.02	BETL
US 781 BGII	4.33	-	3.62	3.98	BETL
DACHB 71C17 BGII	5.00	-	3.40	4.20	BETL
MRC 7918 BG II (ZC 1)	5.33	-	3.11	4.22	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.19	-	1.82	1.01	
MRC 6918 BG II (ZC 2)	0.19	-	1.91	1.05	
GBCH 2002 BGII	0.20	-	1.93	1.07	
ACHB 2111 BGII	0.20	-	2.13	1.17	
US 781 BGII	0.19	-	1.98	1.08	
DACHB 71C17 BGII	0.21	-	2.09	1.15	
MRC 7918 BG II (ZC 1)	0.19	-	2.18	1.18	

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri



Table: Combined HXB trial in Central Zone under Unprotected Conditions – Spotted/ Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plant)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive sampling)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	2.89	1.44	AETL
MRC 6918 BG II (ZC 2)	0.00	-	2.67	1.33	AETL
GBCH 2002 BGII	0.00	-	3.00	1.50	AETL
ACHB 2111 BGII	0.00	-	2.67	1.33	AETL
US 781 BGII	0.00	-	3.00	1.50	AETL
DACHB 71C17 BGII	0.00	-	3.00	1.50	AETL
MRC 7918 BG II (ZC 1)	0.00	-	3.00	1.50	AETL

BA-Banswara, KH- Khandwa, RA- Rahuri,



Table: Combined HXB trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	0.00	0.00	BETL
MRC 6918 BG II (ZC 2)	0.00	-	0.00	0.00	BETL
GBCH 2002 BGII	0.00	-	0.00	0.00	BETL
ACHB 2111 BGII	0.00	-	0.00	0.00	BETL
US 781 BGII	0.00	-	0.00	0.00	BETL
DACHB 71C17 BGII	0.00	-	0.00	0.00	BETL
MRC 7918 BG II (ZC 1)	0.00	-	0.00	0.00	BETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	23.33	11.67	AETL
MRC 6918 BG II (ZC 2)	0.00	-	26.67	13.33	AETL
GBCH 2002 BGII	0.00	-	27.78	13.89	AETL
ACHB 2111 BGII	0.00	-	23.33	11.67	AETL
US 781 BGII	0.00	-	27.78	13.89	AETL
DACHB 71C17 BGII	0.00	-	26.67	13.33	AETL
MRC 7918 BG II (ZC 1)	0.00	-	30.00	15.00	AETL

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	13.40	6.70	
MRC 6918 BG II (ZC 2)	0.00	-	13.03	6.51	
GBCH 2002 BGII	0.00	-	14.85	7.42	
ACHB 2111 BGII	0.00	-	15.76	7.88	
US 781 BGII	0.00	-	17.59	8.80	
DACHB 71C17 BGII	0.00	-	16.49	8.24	
MRC 7918 BG II (ZC 1)	0.00	-	14.58	7.29	

BA-Banswara, KH- Khandwa, RA- Rahuri

Table: Combined HXB trial in Central Zone under Unprotected Conditions –Locule Damage

Name of Entry	Locule Damage (%)				Remark
	BA	KH	RA	Mean	
NCHB 9959 Bt	0.00	-	4.15	2.07	
MRC 6918 BG II (ZC 2)	0.00	-	4.40	2.20	
GBCH 2002 BGII	0.00	-	4.49	2.25	
ACHB 2111 BGII	0.00	-	4.55	2.28	
US 781 BGII	0.00	-	4.72	2.36	
DACHB 71C17 BGII	0.00	-	4.09	2.04	
MRC 7918 BG II (ZC 1)	0.00	-	3.77	1.88	

BA-Banswara, KH- Khandwa, RA- Rahuri



Reaction to Diseases

Table 6(b) Combined Evaluation Trial of Interspecific H X B Hybrids – Irrigated (CET- Hybrids IRR) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions											
			Rahuri											
			CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
5	52111	NCHB 9959 Bt	0.0	DF	0.0	DF	33.9	MR	8.3	R	14.1	R	0.0	DF
1	52112	MRC 6918 BG II (ZC 2)	0.0	DF	0.0	DF	29.0	MR	13.1	R	25.9	MR	0.0	DF
7	52113	GBCH 2002 BGII	0.0	DF	0.0	DF	26.6	MR	25.6	MR	7.0	R	0.0	DF
3	52114	ACHB 2111 BGII	0.0	DF	0.0	DF	5.0	R	7.7	R	10.1	R	0.0	DF
6	52115	US 781 BGII	0.0	DF	0.0	DF	10.3	R	9.8	R	17.5	R	0.0	DF
2	52116	DACHB 71C17 BGII	0.0	DF	0.0	DF	26.1	MR	26.6	MR	13.9	R	0.0	DF
4	52117	MRC 7918 BG II (ZC 1)	0.0	DF	0.0	DF	32.3	MR	5.7	R	10.4	R	0.0	DF



Initial Evaluation Trial of Hirsutum Varieties in Central Zone - Irrigated

Constitution of Trial

The trial was constituted with 14 Bt cotton varieties containing deregulated events along with two different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	8	52121	NH 22067 Bt	CRS, Nanded
2	13	52122	RHCBt-2205 (BGII)	MPKV, Rahuri
3	16	52123	RAHBt 32	UAS, Raichur
4	1	52124	CCH 19-2 Bt	CICR, Coimbatore
5	4	52125	TBG 1/24	CRS, Talod
6	9	52126	NH 1901 Bt (ZC Bt-2)	
7	12	52127	RAHBt 34	UAS, Raichur
8	14	52128	Sunantha Bt	CICR, Coimbatore
9	2	52129	PKV 081 Bt (ZC Bt-1)	
10	5	52130	NH 22065 Bt	CRS, Nanded
11	10	52131	RAHBt 31	UAS, Raichur
12	15	52132	GPC-15 Cry1Ac	NAU, Surat
13	3	52133	Suraj Super Bt	CICR, Coimbatore
14	6	52134	Surabhi Bt	CICR, Coimbatore
15	11	52135	GNH-572 Cry1Ac	NAU, Surat
16	7	52136	RAHBt 33*	UAS, Raichur

The zonal check variety **PKV 081 Bt (ZC Bt-2)** was not released for the central zone under irrigated conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

*The entry did not germinate in all the locations.

The trial was conducted in six different locations viz., Junagadh, Talod, Rahuri, Anand, Khandwa, and Bhawanipatna.

Spacing: Recommended spacing for the variety has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	133.0	144.0	132.0	114.7	143.8	142.3	135.0
2	RHCBt-2205 (BGII)	127.0	122.8	121.3	97.7	130.7	134.5	122.3
3	RAHBt 32	133.0	156.3	166.7	103.0	139.8	143.1	140.3
4	CCH 19-2 Bt	128.0	138.0	128.7	113.7	132.0	154.5	132.5
5	TBG 1/24	116.0	146.7	160.7	114.3	140.8	157.5	139.3
6	NH 1901 Bt (ZC Bt)	135.0	164.0	164.0	101.3	140.2	159.4	144.0
7	RAHBt 34	128.0	151.3	133.3	110.3	143.5	158.5	137.5
8	Sunantha Bt	139.0	146.3	147.3	111.0	151.5	153.3	141.4
9	NH 22065 Bt	125.0	167.3	140.0	114.7	138.2	146.8	138.7
10	RAHBt 31	116.0	147.3	116.7	109.3	133.7	121.7	124.1
11	GPC-15 Cry1Ac	154.0	207.7	198.0	129.0	158.7	216.6	177.3
12	Suraj Super Bt	131.0	148.3	125.3	130.7	143.5	152.9	138.6
13	Surabhi Bt	132.0	156.7	159.3	113.0	139.7	163.5	144.0
14	GNH-572 Cry1Ac	125.0	141.3	147.3	96.7	138.7	152.7	133.6
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	17.9	14.7	20.3	7.3	21.3	19.3	
	CV%	8.2	5.7	8.3	4.2	9.7	9.4	

Number of monopodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	0.8	2.3	1.8	2.1	1.8	0.6	1.6
2	RHCBt-2205 (BGII)	0.8	2.0	1.4	1.9	2.0	0.1	1.4
3	RAHBt 32	1.6	1.5	2.4	1.9	3.0	1.6	2.0
4	CCH 19-2 Bt	1.6	3.1	2.1	2.5	3.2	1.4	2.3
5	TBG 1/24	1.0	1.6	1.1	2.0	2.3	0.7	1.5
6	NH 1901 Bt (ZC Bt)	0.8	1.8	1.4	1.7	2.2	0.0	1.3
7	RAHBt 34	0.7	2.9	2.5	1.7	3.0	0.5	1.9
8	Sunantha Bt	1.6	1.9	1.4	1.5	2.8	0.8	1.7
9	NH 22065 Bt	0.8	1.8	1.6	1.9	1.7	0.1	1.3
10	RAHBt 31	1.2	7.0	2.3	2.5	2.8	1.9	3.0
11	GPC-15 Cry1Ac	1.0	3.2	2.3	1.7	2.2	0.9	1.9
12	Suraj Super Bt	1.4	2.1	1.5	2.0	2.5	0.3	1.6
13	Surabhi Bt	2.0	1.5	1.9	1.9	3.7	1.5	2.1
14	GNH-572 Cry1Ac	1.8	4.7	1.9	1.9	2.7	1.9	2.5
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	0.3	0.4	0.8	0.6	0.8		
	CV%	16.7	8.2	26.2	20.8	20.6		



Number of sympodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	18.1	21.3	18.2	12.7	17.8	25.5	18.9
2	RHCBt-2205 (BGII)	16.3	16.8	17.5	14.1	16.5	19.4	16.8
3	RAHBt 32	17.4	23.3	18.3	9.9	19.7	19.7	18.1
4	CCH 19-2 Bt	15.3	17.3	16.9	12.9	15.3	19.9	16.3
5	TBG 1/24	15.1	20.0	17.7	12.7	18.0	22.7	17.7
6	NH 1901 Bt (ZC Bt)	17.1	17.3	18.5	11.5	19.2	21.0	17.4
7	RAHBt 34	15.8	21.3	17.1	10.0	17.2	19.0	16.7
8	Sunantha Bt	16.3	16.5	17.4	14.4	17.0	20.6	17.0
9	NH 22065 Bt	15.9	21.7	17.1	16.9	19.5	21.3	18.7
10	RAHBt 31	13.6	21.3	14.6	9.3	15.0	16.4	15.0
11	GPC-15 Cry1Ac	18.3	23.3	19.3	12.5	18.5	23.2	19.2
12	Suraj Super Bt	16.3	21.0	16.6	11.1	16.3	20.9	17.0
13	Surabhi Bt	18.5	23.2	18.3	13.5	18.7	22.3	19.1
14	GNH-572 Cry1Ac	17.7	23.5	17.5	10.9	16.8	20.1	17.8
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	1.9	3.1	2.1	1.8	2.8	4.7	
	CV%	6.9	9.2	7.3	9.6	10.2	16.8	

Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	4.6	4.7	3.4	4.4	4.4	3.9	4.2
2	RHCBt-2205 (BGII)	4.8	3.8	3.0	4.4	3.7	4.5	4.0
3	RAHBt 32	3.8	3.8	3.5	3.1	3.7	4.2	3.7
4	CCH 19-2 Bt	4.4	4.9	3.6	3.9	4.2	5.0	4.3
5	TBG 1/24	3.7	3.6	3.1	4.1	3.5	4.2	3.7
6	NH 1901 Bt (ZC Bt)	3.8	3.4	3.3	3.9	3.9	4.6	3.8
7	RAHBt 34	3.7	4.9	4.0	4.2	4.8	4.1	4.3
8	Sunantha Bt	3.6	3.9	3.8	4.6	4.1	3.9	4.0
9	NH 22065 Bt	4.2	4.4	4.2	4.6	4.3	4.4	4.4
10	RAHBt 31	4.6	4.2	3.6	3.9	4.3	4.7	4.2
11	GPC-15 Cry1Ac	4.9	5.4	4.0	3.8	4.6	4.1	4.5
12	Suraj Super Bt	4.1	4.9	3.6	5.3	4.6	4.9	4.6
13	Surabhi Bt	4.0	3.6	3.3	3.9	3.7	4.1	3.8
14	GNH-572 Cry1Ac	3.5	4.5	3.7	4.2	4.8	4.2	4.2
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	0.5	0.6	0.5	0.3	0.7	0.6	
	CV%	7.5	8.6	8.2	5.2	11.1	10.1	



Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	32.5	32.3	35.5	33.9	35.0	40.3	34.9
2	RHCBt-2205 (BGII)	20.1	29.2	33.2	38.6	28.2	33.8	30.5
3	RAHBt 32	28.1	30.5	39.8	16.8	34.7	27.5	29.6
4	CCH 19-2 Bt	18.3	22.2	37.5	30.9	38.3	26.3	28.9
5	TBG 1/24	22.6	35.6	43.8	43.2	33.3	32.8	35.2
6	NH 1901 Bt (ZC Bt)	25.3	35.4	43.8	36.7	40.3	34.4	36.0
7	RAHBt 34	25.9	27.5	45.4	19.7	35.3	30.2	30.7
8	Sunantha Bt	26.3	32.6	35.0	27.9	33.7	30.5	31.0
9	NH 22065 Bt	23.9	32.5	46.5	58.8	33.5	26.9	37.0
10	RAHBt 31	14.1	19.6	32.9	13.8	27.8	19.8	21.3
11	GPC-15 Cry1Ac	19.1	23.9	42.1	27.0	22.7	31.7	27.8
12	Suraj Super Bt	21.2	20.8	36.0	36.3	26.7	32.0	28.8
13	Surabhi Bt	24.1	32.2	44.7	36.1	37.7	28.9	34.0
14	GNH-572 Cry1Ac	24.2	36.1	40.3	20.1	27.0	31.9	29.9
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	6.0	6.3	9.8	6.4	9.2	5.1	
	CV%	15.3	12.5	14.6	13.3	18.3	12.2	

Number of bolls / sq.m. in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	67.4	32.3	65.8	46.7	69.7	124.5	67.7
2	RHCBt-2205 (BGII)	43.4	29.2	61.5	53.3	56.3	103.8	57.9
3	RAHBt 32	58.6	30.5	73.7	23.2	67.7	83.5	56.2
4	CCH 19-2 Bt	39.5	22.2	69.5	42.7	73.0	79.9	54.5
5	TBG 1/24	47.5	35.6	81.1	59.6	66.3	100.6	65.1
6	NH 1901 Bt (ZC Bt)	53.7	35.4	81.1	50.6	80.7	105.7	67.9
7	RAHBt 34	54.9	27.5	84.1	27.2	70.7	92.2	59.4
8	Sunantha Bt	55.1	32.6	64.8	38.5	67.3	93.3	58.6
9	NH 22065 Bt	51.1	32.5	86.0	81.1	67.0	81.6	66.6
10	RAHBt 31	30.9	19.6	61.0	19.0	55.7	59.0	40.9
11	GPC-15 Cry1Ac	41.6	23.9	78.0	37.3	45.3	96.9	53.8
12	Suraj Super Bt	44.9	20.8	66.7	50.1	52.3	98.0	55.5
13	Surabhi Bt	50.9	32.2	82.8	49.9	74.7	88.0	63.1
14	GNH-572 Cry1Ac	50.8	36.1	74.7	27.8	52.0	97.8	56.5
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	12.0	6.3	18.2	8.9	16.2	16.2	
	CV%	14.3	12.5	14.6	13.3	16.3	12.8	



Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	5.3	5.2	4.2	4.8	4.0	4.8	4.7
2	RHCBt-2205 (BGII)	5.3	5.1	3.8	6.4	4.2	5.9	5.1
3	RAHBt 32	4.6	5.4	5.1	5.0	4.0	3.9	4.7
4	CCH 19-2 Bt	4.1	5.3	4.9	5.5	4.9	4.6	4.9
5	TBG 1/24	4.2	4.4	4.0	5.0	3.6	3.9	4.2
6	NH 1901 Bt (ZC Bt)	5.5	5.1	4.5	5.8	3.8	4.5	4.9
7	RAHBt 34	5.3	5.8	5.5	5.6	4.4	5.6	5.4
8	Sunantha Bt	4.8	5.3	4.9	5.1	5.2	5.2	5.1
9	NH 22065 Bt	4.6	4.6	4.9	5.3	4.1	4.7	4.7
10	RAHBt 31	4.5	4.9	4.1	4.7	3.8	5.1	4.5
11	GPC-15 Cry1Ac	5.1	5.6	4.7	5.3	4.7	4.9	5.1
12	Suraj Super Bt	5.2	5.3	4.5	5.3	5.5	4.7	5.1
13	Surabhi Bt	4.5	4.6	4.1	5.0	4.7	4.6	4.6
14	GNH-572 Cry1Ac	6.2	6.6	5.9	5.8	4.8	5.0	5.7
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	0.7	0.6	0.9		0.4		
	CV%	8.6	7.1	11.2		5.4		

Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	10.5	10.0	8.0	9.6	8.1	8.7	9.2
2	RHCBt-2205 (BGII)	10.7	10.7	8.0	11.3	9.4	10.9	10.2
3	RAHBt 32	9.0	9.3	9.0	9.8	7.4	7.2	8.6
4	CCH 19-2 Bt	9.7	11.7	10.0	11.8	10.6	8.8	10.4
5	TBG 1/24	8.7	8.3	8.0	9.9	7.1	7.1	8.2
6	NH 1901 Bt (ZC Bt)	10.2	8.3	7.0	9.6	6.9	7.4	8.2
7	RAHBt 34	11.0	10.7	9.7	10.6	8.1	9.5	9.9
8	Sunantha Bt	10.0	10.7	9.7	10.1	10.0	9.0	9.9
9	NH 22065 Bt	9.2	9.0	8.7	10.2	7.5	8.6	8.9
10	RAHBt 31	10.3	9.7	8.3	10.2	8.6	9.4	9.4
11	GPC-15 Cry1Ac	10.7	12.0	8.3	11.1	9.8	9.2	10.2
12	Suraj Super Bt	11.0	10.7	9.0	11.1	10.5	8.4	10.1
13	Surabhi Bt	9.7	9.7	8.7	10.5	8.5	8.6	9.3
14	GNH-572 Cry1Ac	11.3	10.7	10.3	10.9	8.3	8.9	10.1
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	1.2	1.0	1.5		0.7		
	CV%	7.4	6.0	10.0		5.2		



Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	33.5	34.0	34.5	33.2	32.9	35.6	34.0
2	RHCBt-2205 (BGII)	33.2	32.2	32.1	36.1	30.6	35.1	33.2
3	RAHBt 32	33.7	36.5	36.0	33.6	35.1	34.9	35.0
4	CCH 19-2 Bt	30.0	31.2	33.0	31.7	31.5	34.3	32.0
5	TBG 1/24	32.3	34.4	33.3	33.7	33.5	35.3	33.8
6	NH 1901 Bt (ZC Bt)	35.2	38.1	39.0	37.5	35.8	37.6	37.2
7	RAHBt 34	32.7	35.4	36.1	34.5	35.1	37.0	35.1
8	Sunantha Bt	32.5	33.3	33.4	33.6	34.3	36.8	34.0
9	NH 22065 Bt	33.5	34.0	36.0	34.1	35.3	35.3	34.7
10	RAHBt 31	30.5	33.5	32.7	31.3	30.8	35.0	32.3
11	GPC-15 Cry1Ac	32.3	31.7	36.0	32.1	32.4	34.6	33.2
12	Suraj Super Bt	32.2	33.3	33.5	32.2	34.4	36.1	33.6
13	Surabhi Bt	32.0	32.2	32.1	32.2	35.4	34.9	33.1
14	GNH-572 Cry1Ac	35.3	38.0	36.2	34.8	36.6	35.8	36.1
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	1.6	1.9	2.3		1.0		
	CV%	2.9	3.4	4.1		1.9		

Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	29.1	28.6	25.8	26.5	28.3	26.3	27.4
2	RHCBt-2205 (BGII)	28.3	28.5	27.9	26.8	27.5	25.0	27.3
3	RAHBt 32	24.0	25.2	27.8	24.3	24.2	22.7	24.7
4	CCH 19-2 Bt	31.6	31.1	31.2	29.0	28.6	29.7	30.2
5	TBG 1/24	25.8	27.9	25.7	25.2	25.2	25.8	25.9
6	NH 1901 Bt (ZC Bt)	24.8	25.5	25.7	24.5	25.3	23.8	24.9
7	RAHBt 34	29.1	27.3	26.0	24.6	26.0	25.0	26.3
8	Sunantha Bt	30.8	33.9	31.2	28.8	30.6	29.4	30.8
9	NH 22065 Bt	29.0	30.1	27.8	26.7	29.2	27.1	28.3
10	RAHBt 31	31.8	31.8	30.4	29.7	31.9	27.2	30.5
11	GPC-15 Cry1Ac	29.7	28.7	28.2	26.5	26.5	27.0	27.8
12	Suraj Super Bt	31.3	33.4	31.7	30.5	31.4	30.0	31.4
13	Surabhi Bt	31.7	33.6	31.0	30.6	33.4	30.5	31.8
14	GNH-572 Cry1Ac	28.1	28.7	27.9	26.6	27.3	27.2	27.6
15	RAHBt 33	-	-	-	-	-	-	-



Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	87.0	84.0	81.5	82.0	85.0	83.0	83.8
2	RHCBt-2205 (BGII)	85.0	84.0	81.4	83.0	83.0	85.0	83.6
3	RAHBt 32	81.0	81.0	82.2	83.0	87.0	81.0	82.5
4	CCH 19-2 Bt	87.0	85.0	84.8	85.0	84.0	83.0	84.8
5	TBG 1/24	86.0	83.0	80.4	83.0	82.0	83.0	82.9
6	NH 1901 Bt (ZC Bt)	85.0	82.0	82.3	82.0	82.0	79.0	82.1
7	RAHBt 34	85.0	84.0	83.5	83.0	84.0	83.0	83.8
8	Sunantha Bt	84.0	85.0	84.1	84.0	84.0	84.0	84.2
9	NH 22065 Bt	85.0	85.0	81.0	83.0	85.0	82.0	83.5
10	RAHBt 31	83.0	81.0	79.9	83.0	84.0	85.0	82.7
11	GPC-15 Cry1Ac	85.0	83.0	83.5	83.0	83.0	82.0	83.3
12	Suraj Super Bt	84.0	87.0	84.6	85.0	87.0	85.0	85.4
13	Surabhi Bt	84.0	88.0	82.7	86.0	88.0	83.0	85.3
14	GNH-572 Cry1Ac	82.0	87.0	84.6	83.0	85.0	83.0	84.1
15	RAHBt 33	-	-	-	-	-	-	-

Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	4.7	4.7	3.9	3.9	5.0	4.5	4.5
2	RHCBt-2205 (BGII)	4.7	4.7	3.5	3.9	4.3	3.9	4.2
3	RAHBt 32	4.3	5.2	3.8	4.7	5.3	4.0	4.6
4	CCH 19-2 Bt	3.4	4.5	3.8	3.8	4.4	3.6	3.9
5	TBG 1/24	4.6	4.8	4.4	4.2	4.9	3.8	4.5
6	NH 1901 Bt (ZC Bt)	4.5	4.0	3.5	4.5	4.8	3.9	4.2
7	RAHBt 34	4.9	5.9	5.4	4.5	5.9	4.8	5.2
8	Sunantha Bt	3.7	3.9	4.0	4.1	4.4	3.8	4.0
9	NH 22065 Bt	4.2	4.3	3.3	4.1	4.9	3.4	4.0
10	RAHBt 31	3.8	3.7	3.2	3.5	3.5	4.1	3.6
11	GPC-15 Cry1Ac	3.7	4.4	4.1	3.5	4.2	3.1	3.8
12	Suraj Super Bt	4.2	4.6	3.8	3.7	4.7	3.7	4.1
13	Surabhi Bt	4.0	4.1	3.5	4.1	4.4	3.2	3.9
14	GNH-572 Cry1Ac	3.6	5.5	5.0	4.5	5.5	3.7	4.6
15	RAHBt 33	-	-	-	-	-	-	-



Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	32.0	29.7	27.2	28.4	29.4	25.9	28.8
2	RHCBt-2205 (BGII)	31.6	30.9	27.1	28.5	29.4	26.3	29.0
3	RAHBt 32	25.1	26.3	27.2	25.4	26.8	23.8	25.8
4	CCH 19-2 Bt	36.3	31.5	31.3	30.0	30.4	31.9	31.9
5	TBG 1/24	26.8	28.5	27.7	26.3	27.1	27.3	27.3
6	NH 1901 Bt (ZC Bt)	25.8	27.2	26.2	26.1	26.8	24.4	26.1
7	RAHBt 34	35.9	28.4	27.7	26.1	28.1	26.4	28.8
8	Sunantha Bt	33.4	32.9	31.2	30.2	32.5	30.7	31.8
9	NH 22065 Bt	28.7	30.9	27.7	27.9	31.3	27.6	29.0
10	RAHBt 31	29.4	30.3	28.6	29.7	31.3	29.6	29.8
11	GPC-15 Cry1Ac	30.7	29.9	30.4	26.8	28.2	28.5	29.1
12	Suraj Super Bt	33.4	36.3	31.3	31.8	33.5	30.2	32.8
13	Surabhi Bt	32.1	36.0	30.8	30.9	35.7	30.3	32.6
14	GNH-572 Cry1Ac	29.0	31.9	29.0	28.5	30.9	27.0	29.4
15	RAHBt 33	-	-	-	-	-	-	-

Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	12.22	15.01	6.42	10.92	11.32	13.53	11.57
2	RHCBt-2205 (BGII)	6.94	12.81	10.98	8.78	9.43	11.18	10.02
3	RAHBt 32	8.23	7.04	2.69	6.12	7.72	8.69	6.75
4	CCH 19-2 Bt	6.30	9.27	9.26	8.51	9.09	8.03	8.41
5	TBG 1/24	4.76	12.95	9.43	8.28	9.26	10.27	9.16
6	NH 1901 Bt (ZC Bt)	6.30	13.58	7.14	8.02	15.09	10.61	10.12
7	RAHBt 34	6.30	7.19	2.24	6.25	6.34	8.07	6.07
8	Sunantha Bt	7.72	11.34	6.60	7.17	10.97	8.95	8.79
9	NH 22065 Bt	6.82	13.32	6.24	10.04	7.54	7.73	8.62
10	RAHBt 31	4.89	5.82	2.12	5.01	6.00	7.82	5.28
11	GPC-15 Cry1Ac	6.30	5.72	1.17	5.77	8.23	9.66	6.14
12	Suraj Super Bt	6.81	10.41	10.06	9.79	11.49	9.21	9.63
13	Surabhi Bt	6.05	11.63	3.45	8.59	10.46	7.64	7.97
14	GNH-572 Cry1Ac	5.53	7.23	1.85	6.52	8.23	9.39	6.46
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	2.18	2.50		1.97	2.39		
	CV%	19.88	14.20		15.97	16.51		



Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean
1	NH 22067 Bt	14.15	7.38	9.03	5.60	9.50	4.51	8.36
2	RHCBt-2205 (BGII)	9.77	3.56	4.42	6.92	3.26	3.34	5.21
3	RAHBt 32	10.42	10.33	8.64	4.07	3.94	2.90	6.72
4	CCH 19-2 Bt	7.46	7.02	8.90	4.39	3.09	2.82	5.61
5	TBG 1/24	9.13	6.26	5.48	3.76	3.94	3.07	5.27
6	NH 1901 Bt (ZC Bt)	10.55	4.46	10.29	5.00	4.80	3.93	6.51
7	RAHBt 34	10.16	12.83	12.96	3.93	7.54	2.99	8.40
8	Sunantha Bt	8.49	7.48	6.78	3.93	3.43	2.98	5.52
9	NH 22065 Bt	10.29	7.78	11.45	5.40	4.54	3.16	7.10
10	RAHBt 31	5.02	6.36	10.40	4.94	4.03	3.04	5.63
11	GPC-15 Cry1Ac	9.90	13.13	12.09	5.09	5.86	3.39	8.24
12	Suraj Super Bt	7.84	4.76	5.41	5.57	5.06	3.58	5.37
13	Surabhi Bt	10.03	5.20	15.48	4.98	5.23	3.12	7.34
14	GNH-572 Cry1Ac	8.87	16.67	17.49	4.53	5.66	3.13	9.39
15	RAHBt 33	-	-	-	-	-	-	-
	CD @ 5%	2.30	2.01		1.31	1.51		
	CV%	15.50	14.74		16.97	19.37		

Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Khandwa	Mean	Rank	% Inc
1	NH 22067 Bt	26.36	22.39	15.44	16.52	20.82	18.04	19.93	1	19.8
2	RHCBt-2205 (BGII)	16.72	16.38	15.41	15.70	12.69	14.51	15.24	6	-8.4
3	RAHBt 32	18.65	17.38	11.33	10.19	11.66	11.59	13.47	13	-19.0
4	CCH 19-2 Bt	13.76	16.28	18.16	12.91	12.17	10.85	14.02	12	-15.7
5	TBG 1/24	13.89	19.21	14.90	12.04	13.20	13.33	14.43	9	-13.2
6	NH 1901 Bt (ZC Bt)	16.85	18.04	17.43	13.02	19.89	14.54	16.63	2	0.0
7	RAHBt 34	16.46	20.01	15.20	10.19	13.89	11.06	14.47	8	-13.0
8	Sunantha Bt	16.20	18.81	13.37	11.10	14.40	11.93	14.30	11	-14.0
9	NH 22065 Bt	17.10	21.10	17.68	15.44	12.09	10.89	15.72	4	-5.5
10	RAHBt 31	9.90	12.18	12.53	9.95	10.03	10.86	10.91	14	-34.4
11	GPC-15 Cry1Ac	16.20	18.85	13.26	10.86	14.09	13.06	14.39	10	-13.5
12	Suraj Super Bt	14.66	15.17	15.47	15.36	16.55	12.79	15.00	7	-9.8
13	Surabhi Bt	16.08	16.82	18.93	13.57	15.69	10.76	15.31	5	-7.9
14	GNH-572 Cry1Ac	14.40	23.90	19.34	11.06	13.89	12.52	15.85	3	-4.7
15	RAHBt 33	-	-	-	-	-	-	-	-	-
	CD @ 5%	3.71	3.64		2.18	2.94	2.08			
	CV%	14.38	11.64		10.89	13.19	12.11			



Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

Table: Initial Variety Trial in Central Zone under Protected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	10.30	1.80	1.91	11.90	14.32	29.09	11.55	AETL
RHCBt-2205 (BGII)	9.43	1.92	1.98	9.83	25.36	5.58	9.02	BETL
RAHBt 32	9.93	2.88	2.16	12.10	15.32	49.98	15.39	AETL
CCH 19-2 Bt	8.80	1.29	1.91	12.50	16.34	15.29	9.35	BETL
TBG 1/24	9.17	2.15	1.96	12.43	28.32	6.07	10.02	AETL
NH 1901 Bt (ZC Bt-2)	8.30	1.52	2.02	10.97	23.60	62.11	18.09	AETL
RAHBt 34	7.23	2.06	2.09	11.47	28.32	81.11	22.05	AETL
Sunantha Bt	7.90	2.34	2.11	11.13	13.25	20.13	9.48	BETL
PKV 081 Bt (ZC Bt-1)	6.90	1.02	1.82	10.77	15.32	15.91	8.62	BETL
NH 22065 Bt	8.03	1.39	1.69	9.53	16.35	28.58	10.93	AETL
RAHBt 31	8.57	2.76	1.93	13.13	18.32	16.67	10.23	AETL
GPC-15 Cry1Ac	8.17	2.56	2.07	10.90	19.32	21.33	10.72	AETL
Suraj Super Bt	10.77	1.68	1.47	11.87	13.20	17.33	9.39	BETL
Surabhi Bt	7.67	1.24	1.98	10.53	23.65	30.40	12.58	AETL
GNH-572 Cry1Ac	11.17	1.07	2.04	9.90	25.32	26.44	12.66	AETL
RAHBt 33*	-	0.00	-	NG	25.00	-	12.50	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	7.33	1.31	1.51	2.12	12.32	0.98	4.26	BETL
RHCBt-2205 (BGII)	7.60	1.43	1.42	1.77	11.32	0.98	4.09	BETL
RAHBt 32	8.80	2.39	1.44	2.10	10.20	1.17	4.35	BETL
CCH 19-2 Bt	7.07	0.80	1.40	2.07	9.36	1.56	3.71	BETL
TBG 1/24	5.03	1.66	1.40	1.97	8.33	1.04	3.24	BETL
NH 1901 Bt (ZC Bt-2)	5.23	1.03	1.36	2.08	12.32	1.71	3.96	BETL
RAHBt 34	7.57	1.57	1.27	1.93	15.32	1.20	4.81	BETL
Sunantha Bt	7.80	1.85	1.47	2.27	11.32	2.04	4.46	BETL
PKV 081 Bt (ZC Bt-1)	5.93	0.55	1.64	1.70	11.32	0.23	3.56	BETL
NH 22065 Bt	6.60	0.90	1.62	1.90	12.00	1.78	4.13	BETL
RAHBt 31	8.53	2.27	1.56	1.93	8.25	1.87	4.07	BETL
GPC-15 Cry1Ac	5.73	2.07	1.47	2.13	7.33	0.93	3.28	BETL
Suraj Super Bt	6.80	1.19	1.69	2.30	11.32	1.13	4.07	BETL
Surabhi Bt	6.20	0.75	1.76	1.83	15.00	1.11	4.44	BETL
GNH-572 Cry1Ac	8.27	0.58	1.64	1.97	14.32	1.13	4.65	BETL
RAHBt 33*	-	0.00	-	NG	10.30	-	5.15	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	II	II	I	I	-	I	II	
RHCBt-2205 (BGII)	II	II	I	I	-	I	II	
RAHBt 32	II	III	I	II	-	I	II	
CCH 19-2 Bt	II	I	I	I	-	I	I	
TBG 1/24	II	II	I	I	-	I	II	
NH 1901 Bt (ZC Bt-2)	II	II	I	I	-	I	II	
RAHBt 34	II	II	I	I	-	I	II	
Sunantha Bt	II	II	I	I	-	I	II	
PKV 081 Bt (ZC Bt-1)	II	I	I	I	-	I	I	
NH 22065 Bt	II	I	I	I	-	I	I	
RAHBt 31	II	III	I	I	-	I	II	
GPC-15 Cry1Ac	II	II	I	I	-	I	I	
Suraj Super Bt	II	I	I	I	-	I	I	
Surabhi Bt	II	I	I	I	-	I	I	
GNH-572 Cry1Ac	II	I	I	I	-	I	I	
RAHBt 33*	-	-	-	NG	-	-	-	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given,
NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	11.33	2.80	0.69	8.93	-	0.04	4.76	BETL
RHCBt-2205 (BGII)	10.67	2.92	0.80	9.10	-	0.11	4.72	BETL
RAHBt 32	10.17	3.88	0.82	9.17	-	0.09	4.82	BETL
CCH 19-2 Bt	10.97	2.29	0.82	8.67	-	0.13	4.58	BETL
TBG 1/24	9.90	3.15	0.87	8.97	-	0.00	4.58	BETL
NH 1901 Bt (ZC Bt-2)	9.50	2.52	0.84	7.60	-	0.09	4.11	BETL
RAHBt 34	9.07	3.06	0.84	8.43	-	0.02	4.29	BETL
Sunantha Bt	8.30	3.34	0.80	8.67	-	0.02	4.23	BETL
PKV 081 Bt (ZC Bt-1)	11.73	2.02	0.89	7.73	-	0.02	4.48	BETL
NH 22065 Bt	12.20	2.39	0.89	7.93	-	0.00	4.68	BETL
RAHBt 31	12.90	3.76	0.87	9.10	-	0.04	5.33	BETL
GPC-15 Cry1Ac	12.60	3.56	0.91	9.67	-	0.02	5.35	BETL
Suraj Super Bt	8.57	2.68	0.96	9.93	-	0.04	4.44	BETL
Surabhi Bt	8.03	2.24	0.91	9.43	-	0.09	4.14	BETL
GNH-572 Cry1Ac	9.20	2.07	0.96	8.73	-	0.20	4.23	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given,
NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	7.07	1.66	0.64	1.27	11.32	0.42	3.73	BETL
RHCBt-2205 (BGII)	9.00	1.79	0.62	1.47	14.99	0.64	4.75	BETL
RAHBt 32	8.27	2.74	0.67	1.27	12.36	0.42	4.29	BETL
CCH 19-2 Bt	7.77	1.16	0.53	1.40	10.32	0.60	3.63	BETL
TBG 1/24	6.73	2.01	0.69	1.37	11.36	0.29	3.74	BETL
NH 1901 Bt (ZC Bt-2)	6.23	1.39	0.51	1.67	15.23	0.38	4.23	BETL
RAHBt 34	8.67	1.92	0.53	1.63	11.36	0.13	4.04	BETL
Sunantha Bt	7.17	2.21	0.69	1.50	10.11	0.71	3.73	BETL
PKV 081 Bt (ZC Bt-1)	7.57	0.91	0.62	1.67	9.68	1.07	3.59	BETL
NH 22065 Bt	9.20	1.25	0.73	1.27	12.33	1.22	4.33	BETL
RAHBt 31	5.87	2.63	0.69	1.37	15.32	0.58	4.41	BETL
GPC-15 Cry1Ac	8.07	2.43	0.67	1.23	15.22	0.56	4.70	BETL
Suraj Super Bt	5.57	1.54	0.71	1.37	14.36	1.04	4.10	BETL
Surabhi Bt	6.50	1.11	0.71	1.13	10.23	1.22	3.48	BETL
GNH-572 Cry1Ac	9.60	0.94	0.69	1.33	9.99	0.58	3.86	BETL
RAHBt 33*	-	0.00	-	NG	9.60	-	4.80	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions –Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	0.00	2.00	0.00	1.80	-	0.56	0.87	
RHCBt-2205 (BGII)	0.00	1.62	0.00	2.10	-	0.67	0.88	
RAHBt 32	0.00	1.82	0.00	2.13	-	0.51	0.89	
CCH 19-2 Bt	0.00	1.96	0.00	1.83	-	0.31	0.82	
TBG 1/24	0.00	2.29	0.00	1.67	-	0.38	0.87	
NH 1901 Bt (ZC Bt-2)	0.00	2.40	0.00	1.87	-	0.09	0.87	
RAHBt 34	0.00	2.13	0.00	1.70	-	0.53	0.87	
Sunantha Bt	0.00	2.00	0.00	1.93	-	0.58	0.90	
PKV 081 Bt (ZC Bt-1)	0.00	2.18	0.00	1.93	-	0.51	0.92	
NH 22065 Bt	0.00	1.98	0.00	1.67	-	0.60	0.85	
RAHBt 31	0.00	2.07	0.00	1.87	-	0.51	0.89	
GPC-15 Cry1Ac	0.00	2.07	0.00	1.80	-	0.42	0.86	
Suraj Super Bt	0.00	2.14	0.00	1.70	-	0.27	0.82	
Surabhi Bt	0.00	2.33	0.00	1.50	-	0.49	0.86	
GNH-572 Cry1Ac	0.00	2.33	0.00	2.03	-	0.58	0.99	
RAHBt 33*	-	0.00	-	NG	-	-	0.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * data not given, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions–*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given,
NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	5.00	0.92	0.00	1.17	12.36	0.00	3.24	AETL
RHCBt-2205 (BGII)	5.20	1.03	0.02	1.00	11.02	0.00	3.05	AETL
RAHBt 32	3.40	2.28	0.11	1.17	8.70	0.00	2.61	AETL
CCH 19-2 Bt	4.30	0.37	0.07	1.00	8.88	0.00	2.44	AETL
TBG 1/24	3.00	1.55	0.02	1.17	11.20	0.00	2.82	AETL
NH 1901 Bt (ZC Bt-2)	3.90	0.77	0.09	1.50	12.36	0.00	3.10	AETL
RAHBt 34	2.70	1.46	0.07	2.17	14.25	0.00	3.44	AETL
Sunantha Bt	3.00	1.74	0.02	1.17	10.36	0.00	2.71	AETL
PKV 081 Bt (ZC Bt-1)	3.80	0.27	0.02	2.67	9.36	0.00	2.69	AETL
NH 22065 Bt	4.40	0.74	0.04	1.33	7.77	0.00	2.38	AETL
RAHBt 31	3.90	2.16	0.07	2.00	12.50	0.00	3.44	AETL
GPC-15 Cry1Ac	4.70	1.96	0.09	1.50	8.90	0.00	2.86	AETL
Suraj Super Bt	3.20	0.83	0.02	1.17	7.89	0.00	2.18	AETL
Surabhi Bt	4.50	0.38	0.07	2.00	11.28	0.00	3.04	AETL
GNH-572 Cry1Ac	3.60	0.29	0.04	1.33	12.36	2.44	3.35	AETL
RAHBt 33*	-	0.00	-	NG	11.78	-	5.89	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* data based on 20 green bolls, # Data based on 2 obseravtions, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions -Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions -Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	12.89	8.50	0.00	11.67	-	0.00	6.61	BETL
RHCBt-2205 (BGII)	13.53	8.33	2.56	13.33	-	0.00	7.55	BETL
RAHBt 32	9.04	12.00	1.78	15.00	-	0.00	7.56	BETL
CCH 19-2 Bt	11.20	7.00	1.00	15.00	-	0.00	6.84	BETL
TBG 1/24	7.78	7.67	1.89	15.00	-	4.44	7.36	BETL
NH 1901 Bt (ZC Bt-2)	10.31	6.33	1.11	18.33	-	0.00	7.22	BETL
RAHBt 34	7.29	8.00	1.56	25.00	-	0.00	8.37	BETL
Sunantha Bt	8.24	9.33	1.11	13.33	-	0.00	6.40	BETL
PKV 081 Bt (ZC Bt-1)	10.14	5.33	1.33	23.33	-	0.00	8.03	BETL
NH 22065 Bt	11.71	7.00	1.44	15.00	-	0.00	7.03	BETL
RAHBt 31	10.79	9.67	2.33	23.33	-	0.00	9.22	BETL
GPC-15 Cry1Ac	12.53	10.00	1.89	16.67	-	0.00	8.22	BETL
Suraj Super Bt	8.71	8.67	1.00	15.00	-	0.00	6.68	BETL
Surabhi Bt	12.08	6.00	1.22	23.33	-	0.00	8.53	BETL
GNH-572 Cry1Ac	9.58	6.67	1.11	15.00	-	18.89	10.25	AETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	16.40	28.33	14.26	10.50	-	15.56	17.01	
RHCBt-2205 (BGII)	16.61	25.00	12.30	14.21	-	35.83	20.79	
RAHBt 32	12.49	45.00	16.13	12.81	-	20.52	21.39	
CCH 19-2 Bt	14.68	28.33	20.61	11.55	-	28.81	20.79	
TBG 1/24	11.09	30.00	13.05	9.70	-	32.76	19.32	
NH 1901 Bt (ZC Bt-2)	13.88	25.00	11.93	9.45	-	33.84	18.82	
RAHBt 34	10.85	31.67	16.76	14.59	-	15.68	17.91	
Sunantha Bt	11.65	30.00	15.90	14.79	-	15.34	17.53	
PKV 081 Bt (ZC Bt-1)	13.36	16.67	13.50	15.52	-	15.68	14.95	
NH 22065 Bt	15.11	23.33	16.94	11.81	-	15.42	16.52	
RAHBt 31	14.23	31.67	11.43	20.42	-	15.25	18.60	
GPC-15 Cry1Ac	15.96	33.33	16.65	11.93	-	15.37	18.65	
Suraj Super Bt	12.33	28.33	21.38	11.76	-	19.40	18.64	
Surabhi Bt	15.67	21.67	16.78	22.82	-	15.46	18.48	
GNH-572 Cry1Ac	13.04	20.00	16.13	11.49	-	15.68	15.27	
RAHBt 33*	-	0.00	-	NG	-	-	0.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given,
NG-Not germinate

Table: Initial Variety Trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	10.75	5.67	7.59	3.49	-	7.83	7.07	
RHCBt-2205 (BGII)	11.01	5.00	6.80	4.64	-	15.49	8.59	
RAHBt 32	6.80	9.00	8.92	3.56	-	8.74	7.40	
CCH 19-2 Bt	8.74	5.67	10.90	4.00	-	15.70	9.00	
TBG 1/24	5.83	6.00	7.03	3.94	-	16.11	7.78	
NH 1901 Bt (ZC Bt-2)	7.91	5.00	5.74	3.56	-	16.34	7.71	
RAHBt 34	5.37	6.33	9.25	5.32	-	4.84	6.22	
Sunantha Bt	6.15	6.00	8.89	4.49	-	7.67	6.64	
PKV 081 Bt (ZC Bt-1)	7.68	3.33	7.45	5.71	-	7.67	6.37	
NH 22065 Bt	9.46	4.67	8.35	4.45	-	6.99	6.78	
RAHBt 31	8.35	6.33	7.64	5.39	-	7.15	6.97	
GPC-15 Cry1Ac	10.23	6.67	9.06	3.58	-	7.06	7.32	
Suraj Super Bt	6.33	5.67	12.13	3.87	-	5.97	6.79	
Surabhi Bt	9.65	4.33	9.84	8.40	-	4.78	7.40	
GNH-572 Cry1Ac	7.36	4.00	8.28	3.53	-	7.10	6.05	
RAHBt 33*	-	0.00	-	NG	-	-	0.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given,
NG-Not germinate



Table: Initial Variety Trial in Central Zone under Protected Conditions - No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
NH 22067 Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
RHCBt-2205 (BGII)	7.00	3.00	4.00	5.00	-	3.00	4.40	
RAHBt 32	7.00	3.00	4.00	5.00	-	3.00	4.40	
CCH 19-2 Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
TBG 1/24	7.00	3.00	4.00	5.00	-	3.00	4.40	
NH 1901 Bt (ZC Bt-2)	7.00	3.00	4.00	5.00	-	3.00	4.40	
RAHBt 34	7.00	3.00	4.00	5.00	-	3.00	4.40	
Sunantha Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
PKV 081 Bt (ZC Bt-1)	7.00	3.00	4.00	5.00	-	3.00	4.40	
NH 22065 Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
RAHBt 31	7.00	3.00	4.00	5.00	-	3.00	4.40	
GPC-15 Cry1Ac	7.00	3.00	4.00	5.00	-	3.00	4.40	
Suraj Super Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
Surabhi Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
GNH-572 Cry1Ac	7.00	3.00	4.00	5.00	-	3.00	4.40	
RAHBt 33*	-	-	-	5.00	-	-	5.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, * Data not given, NG-Not germinate



Reaction to Diseases

Table 7(a): Initial Evaluation Trial of Hirsutum Varieties – Irrigated (IET Variety IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																							
			Junagarh												Rahuri											
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR			
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR		
8	52121	NH 22067 Bt	12.7	R	0.7	R	20.5	R	10.0	R	15.6	R	0.0	DF	0.0	DF	0.0	DF	0.0	DF	0.0	DF	0.0	DF		
13	52122	RHCBt-2205 (BGII)	13.3	R	1.3	R	29.3	MR	25.5	MR	17.8	R	0.0	DF	0.0	DF	0.0	DF	5.0	R	8.7	R	0.0	DF		
16	52123	RAHBt 32	16.5	R	1.3	R	17.3	R	55.0	MS	22.2	R	0.0	DF	0.0	DF	12.3	R	6.7	R	5.8	R	0.0	DF		
1	52124	CCH 19-2 Bt	13.8	R	4.8	R	23.7	R	28.5	MR	35.6	MR	0.0	DF	0.0	DF	0.0	DF	8.6	R	0.0	DF	0.0	DF		
4	52125	TBG 1/24	19.3	R	0.8	R	15.8	R	17.0	R	26.7	MR	0.0	DF	0.0	DF	0.0	DF	1.1	R	0.0	DF	0.0	DF		
9	52126	NH 1901 Bt (ZC Bt-2)	14.2	R	1.3	R	18.2	R	21.0	R	15.6	R	0.0	DF	0.0	DF	12.6	R	0.0	DF	0.0	DF	0.0	DF		
12	52127	RAHBt 34	16.2	R	0.8	R	29.8	MR	29.0	MR	26.7	MR	0.0	DF	0.0	DF	6.7	R	9.0	R	0.0	DF	0.0	DF		
14	52128	Sunantha Bt	22.0	R	0.8	R	17.7	R	46.2	MR	22.2	R	0.0	DF	0.0	DF	0.0	DF	6.7	R	8.4	R	0.0	DF		
2	52129	PKV 081 Bt (ZC Bt-1)	23.7	R	9.0	R	16.2	R	37.8	MR	17.8	R	0.0	DF	0.0	DF	3.3	R	7.5	R	10.4	R	0.0	DF		
5	52130	NH 22065 Bt	14.7	R	0.5	R	12.5	R	32.3	MR	15.6	R	0.0	DF	0.0	DF	3.3	R	0.0	DF	9.9	R	0.0	DF		
10	52131	RAHBt 31	13.7	R	0.8	R	13.8	R	35.5	MR	42.2	MR	0.0	DF	0.0	DF	7.5	R	0.0	DF	8.2	R	0.0	DF		
15	52132	GPC-15 Cry1Ac	20.2	R	1.5	R	11.8	R	15.8	R	11.1	R	0.0	DF	0.0	DF	12.0	R	10.3	R	9.9	R	0.0	DF		
3	52133	Suraj Super Bt	31.3	MR	1.0	R	15.2	R	32.0	MR	33.3	MR	0.0	DF	0.0	DF	10.5	R	8.8	R	0.0	DF	0.0	DF		
6	52134	Surabhi Bt	23.0.	R	1.5	R	14.7	R	29.5	MR	31.1	MR	0.0	DF	0.0	DF	7.5	R	0.0	DF	3.0	R	0.0	DF		
11	52135	GNH-572 Cry1Ac	26.2	MR	8.2	R	17.2	R	25.7	MR	22.2	R	0.0	DF	0.0	DF	10.4	R	10.5	R	8.5	R	0.0	DF		
7	52136	RAHBt 33	No germination																							



Table 7(b): Initial Evaluation Trial of Hirsutum Varieties – Irrigated (IET Variety IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
8	52121	NH 22067 Bt	17.5	R	40.0	MR	12.5	R	0.0	DF
13	52122	RHCBt-2205 (BGII)	27.5	MR	10.0	R	40.0	MR	0.0	DF
16	52123	RAHBt 32	30.0	MR	22.5	R	35.0	MR	0.0	DF
1	52124	CCH 19-2 Bt	30.0	MR	27.5	MR	42.5	MR	0.0	DF
4	52125	TBG 1/24	40.0	MR	47.5	MR	15.0	R	0.0	DF
9	52126	NH 1901 Bt (ZC Bt-2)	32.5	MR	20.0	R	35.0	MR	0.0	DF
12	52127	RAHBt 34	42.5	MR	22.5	R	55.0	MS	7.5	R
14	52128	Sunantha Bt	32.5	MR	35.0	MR	77.5	S	0.0	DF
2	52129	PKV 081 Bt (ZC Bt-1)	42.5	MR	25.0	R	65.0	MS	0.0	DF
5	52130	NH 22065 Bt	37.5	MR	25.0	R	60.0	MR	0.0	DF
10	52131	RAHBt 31	42.5	MR	30.0	MR	55.0	MS	0.0	DF
15	52132	GPC-15 Cry1Ac	35.0	MR	27.5	MR	60.0	MS	0.0	DF
3	52133	Suraj Super Bt	32.5	MR	30.0	MR	62.5	MS	0.0	DF
6	52134	Surabhi Bt	65.0	MS	47.5	MR	72.5	MS	0.0	DF
11	52135	GNH-572 Cry1Ac	32.5	MR	32.5	MR	67.5	MS	0.0	DF
7	52136	RAHBt 33	-	-	-	-	-	-	-	-



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Initial Variety Trial in Central Zone under Unprotected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	10.63	2.12	3.13	14.47	-	6.13	7.30	BETL
RHCBt-2205 (BGII)	9.77	2.23	2.87	12.87	-	5.23	6.59	BETL
RAHBt 32	10.23	3.19	3.27	14.77	-	23.08	10.91	AETL
CCH 19-2 Bt	9.10	1.67	3.33	15.57	-	4.53	6.84	BETL
TBG 1/24	9.50	2.43	2.53	15.63	-	3.52	6.72	BETL
NH 1901 Bt (ZC Bt-2)	8.63	1.87	2.80	13.37	-	57.66	16.87	AETL
RAHBt 34	7.57	2.35	3.13	14.57	-	54.90	16.50	AETL
Sunantha Bt	8.23	2.71	2.87	13.63	-	13.89	8.27	BETL
PKV 081 Bt (ZC Bt-1)	7.23	1.33	3.20	12.97	-	6.26	6.20	BETL
NH 22065 Bt	8.37	1.75	3.07	11.43	-	11.55	7.23	BETL
RAHBt 31	8.90	3.08	3.53	16.27	-	11.64	8.68	BETL
GPC-15 Cry1Ac	8.50	2.90	3.00	13.10	-	19.20	9.34	BETL
Suraj Super Bt	11.10	2.02	2.67	14.30	-	3.64	6.75	BETL
Surabhi Bt	7.97	1.63	3.20	12.93	-	18.97	8.94	BETL
GNH-572 Cry1Ac	11.50	1.37	2.73	12.20	-	19.98	9.56	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	7.63	1.64	2.60	3.70	-	1.98	3.51	BETL
RHCBt-2205 (BGII)	7.90	1.77	3.07	3.50	-	3.04	3.86	BETL
RAHBt 32	9.10	2.72	3.00	3.93	-	2.97	4.34	BETL
CCH 19-2 Bt	7.37	1.13	3.00	3.40	-	2.42	3.46	BETL
TBG 1/24	5.37	1.99	3.00	3.57	-	2.13	3.21	BETL
NH 1901 Bt (ZC Bt-2)	5.57	1.37	2.80	3.87	-	2.04	3.13	BETL
RAHBt 34	7.90	1.90	3.53	3.53	-	1.80	3.73	BETL
Sunantha Bt	8.10	2.19	2.80	3.70	-	3.02	3.96	BETL
PKV 081 Bt (ZC Bt-1)	6.23	0.89	3.47	3.17	-	1.38	3.03	BETL
NH 22065 Bt	6.90	1.23	3.67	3.43	-	1.82	3.41	BETL
RAHBt 31	8.83	2.61	3.13	3.63	-	3.27	4.30	BETL
GPC-15 Cry1Ac	6.07	2.41	2.73	3.63	-	1.91	3.35	BETL
Suraj Super Bt	7.10	1.52	2.60	3.60	-	3.04	3.57	BETL
Surabhi Bt	6.50	1.08	3.40	3.53	-	2.16	3.33	BETL
GNH-572 Cry1Ac	8.57	0.91	2.40	3.20	-	1.84	3.38	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	II	II	I	I	-	I	I	
RHCBt-2205 (BGII)	II	II	I	I	-	I	I	
RAHBt 32	II	III	I	II	-	I	II	
CCH 19-2 Bt	II	II	I	I	-	I	I	
TBG 1/24	III	II	II	I	-	I	II	
NH 1901 Bt (ZC Bt-2)	II	II	I	I	-	I	I	
RAHBt 34	II	II	I	I	-	I	I	
Sunantha Bt	II	III	I	I	-	II	II	
PKV 081 Bt (ZC Bt-1)	II	I	I	I	-	I	I	
NH 22065 Bt	II	II	I	I	-	I	I	
RAHBt 31	II	III	I	I	-	II	II	
GPC-15 Cry1Ac	II	III	I	I	-	I	II	
Suraj Super Bt	II	II	I	I	-	II	II	
Surabhi Bt	II	I	I	I	-	I	I	
GNH-572 Cry1Ac	II	I	I	I	-	I	I	
RAHBt 33*	-	-	-	NG	-	-	-	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	11.63	3.05	3.40	12.10	-	0.02	6.04	BETL
RHCBt-2205 (BGII)	10.97	3.17	3.33	12.53	-	0.02	6.01	BETL
RAHBt 32	10.50	4.02	3.47	12.50	-	0.09	6.12	BETL
CCH 19-2 Bt	11.30	2.60	3.60	11.53	-	0.04	5.82	BETL
TBG 1/24	10.23	3.38	3.33	11.93	-	0.00	5.78	BETL
NH 1901 Bt (ZC Bt-2)	9.83	2.81	3.27	10.53	-	0.09	5.31	BETL
RAHBt 34	9.37	3.29	3.00	11.30	-	0.02	5.40	BETL
Sunantha Bt	8.70	3.54	3.53	11.43	-	0.02	5.45	BETL
PKV 081 Bt (ZC Bt-1)	12.03	2.36	2.93	10.77	-	0.02	5.62	BETL
NH 22065 Bt	12.50	2.69	3.47	11.53	-	0.00	6.04	BETL
RAHBt 31	13.23	3.92	3.20	12.27	-	0.04	6.53	BETL
GPC-15 Cry1Ac	12.90	3.74	2.73	12.93	-	0.02	6.47	BETL
Suraj Super Bt	8.90	2.94	3.40	12.87	-	0.04	5.63	BETL
Surabhi Bt	8.37	2.55	3.20	13.13	-	0.09	5.47	BETL
GNH-572 Cry1Ac	9.57	2.40	3.40	11.60	-	0.20	5.43	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	7.40	2.00	0.00	2.37	-	0.31	2.42	BETL
RHCBt-2205 (BGII)	9.33	2.12	0.13	2.50	-	0.40	2.90	BETL
RAHBt 32	8.60	3.08	0.20	2.67	-	0.40	2.99	BETL
CCH 19-2 Bt	8.13	1.49	0.27	2.57	-	0.56	2.60	BETL
TBG 1/24	7.07	2.35	0.07	2.47	-	0.22	2.43	BETL
NH 1901 Bt (ZC Bt-2)	6.60	1.72	0.20	2.83	-	0.27	2.32	BETL
RAHBt 34	9.00	2.26	0.13	2.67	-	0.36	2.88	BETL
Sunantha Bt	7.53	2.54	0.27	2.73	-	0.69	2.75	BETL
PKV 081 Bt (ZC Bt-1)	7.93	1.24	0.07	2.33	-	1.09	2.53	BETL
NH 22065 Bt	9.53	1.59	0.00	2.23	-	1.27	2.92	BETL
RAHBt 31	6.27	2.96	0.00	2.30	-	0.73	2.45	BETL
GPC-15 Cry1Ac	8.40	2.76	0.07	2.33	-	0.98	2.91	BETL
Suraj Super Bt	5.93	1.88	0.40	2.43	-	0.58	2.24	BETL
Surabhi Bt	6.87	1.44	0.27	2.43	-	0.76	2.35	BETL
GNH-572 Cry1Ac	9.93	1.27	0.13	2.30	-	0.51	2.83	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions –Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	0.00	2.38	0.00	2.67	-	0.49	1.11	
RHCBt-2205 (BGII)	0.00	2.09	0.00	2.93	-	0.64	1.13	
RAHBt 32	0.00	2.16	0.00	3.07	-	0.56	1.16	
CCH 19-2 Bt	0.00	2.28	0.00	2.77	-	0.42	1.09	
TBG 1/24	0.00	2.57	0.00	2.67	-	0.27	1.10	
NH 1901 Bt (ZC Bt-2)	0.00	2.74	0.00	2.83	-	0.11	1.14	
RAHBt 34	0.00	2.47	0.00	2.70	-	0.44	1.12	
Sunantha Bt	0.00	2.34	0.00	2.67	-	0.62	1.13	
PKV 081 Bt (ZC Bt-1)	0.00	2.49	0.00	2.93	-	0.47	1.18	
NH 22065 Bt	0.00	2.33	0.00	2.70	-	0.53	1.11	
RAHBt 31	0.00	2.49	0.00	2.90	-	0.40	1.16	
GPC-15 Cry1Ac	0.00	2.40	0.00	3.00	-	0.31	1.14	
Suraj Super Bt	0.00	2.46	0.00	2.77	-	0.24	1.09	
Surabhi Bt	0.00	2.67	0.00	2.67	-	0.64	1.20	
GNH-572 Cry1Ac	0.00	2.67	0.00	3.00	-	0.56	1.25	
RAHBt 33*	-	0.00	-	NG	-	-	0.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Unprotected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	-	-	NG	-	-	-	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	-	-	NG	-	-	-	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Unprotected Conditions–*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	-	-	NG	-	-	-	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	5.30	6.00	0.00	1.83	-	0.00	2.63	AETL
RHCBt-2205 (BGII)	5.50	5.67	0.07	2.00	-	0.00	2.65	AETL
RAHBt 32	3.70	9.67	0.00	1.83	-	0.00	3.04	AETL
CCH 19-2 Bt	4.60	6.33	0.00	2.17	-	0.00	2.62	AETL
TBG 1/24	3.30	6.67	0.00	2.17	-	0.00	2.43	AETL
NH 1901 Bt (ZC Bt-2)	4.20	5.67	0.07	2.50	-	0.00	2.49	AETL
RAHBt 34	3.00	7.00	0.00	3.33	-	0.00	2.67	AETL
Sunantha Bt	3.30	6.67	0.13	1.83	-	0.00	2.39	AETL
PKV 081 Bt (ZC Bt-1)	4.10	4.00	0.00	3.33	-	0.00	2.29	AETL
NH 22065 Bt	4.70	5.33	0.07	2.17	-	0.00	2.45	AETL
RAHBt 31	4.20	7.00	0.00	3.00	-	0.00	2.84	AETL
GPC-15 Cry1Ac	5.00	7.33	0.00	2.33	-	0.00	2.93	AETL
Suraj Super Bt	3.50	6.33	0.00	2.00	-	0.00	2.37	AETL
Surabhi Bt	4.80	5.00	0.00	3.00	-	0.00	2.56	AETL
GNH-572 Cry1Ac	3.90	4.67	0.07	2.17	-	0.00	2.16	AETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Unprotected Conditions -Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RHCBt-2205 (BGII)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 32	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 19-2 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 1/24	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 34	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Sunantha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22065 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 31	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GPC-15 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Super Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Surabhi Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
GNH-572 Cry1Ac	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions -Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	13.32	9.17	0.00	18.33	-	0.00	8.16	BETL
RHCBt-2205 (BGII)	13.95	9.00	6.67	20.00	-	0.00	9.92	BETL
RAHBt 32	9.50	12.67	0.00	18.33	-	0.00	8.10	BETL
CCH 19-2 Bt	11.63	7.67	3.33	21.67	-	0.00	8.86	BETL
TBG 1/24	8.22	8.33	0.00	21.67	-	4.44	8.53	BETL
NH 1901 Bt (ZC Bt-2)	10.75	7.00	10.00	25.00	-	0.00	10.55	AETL
RAHBt 34	7.75	8.67	3.33	33.33	-	0.00	10.62	AETL
Sunantha Bt	8.70	10.00	6.67	18.33	-	0.00	8.74	BETL
PKV 081 Bt (ZC Bt-1)	10.57	6.00	0.00	33.33	-	0.00	9.98	BETL
NH 22065 Bt	12.15	7.67	6.67	21.67	-	0.00	9.63	BETL
RAHBt 31	11.23	10.33	0.00	30.00	-	0.00	10.31	AETL
GPC-15 Cry1Ac	12.95	10.67	0.00	23.33	-	0.00	9.39	BETL
Suraj Super Bt	9.15	9.33	3.33	20.00	-	0.00	8.36	BETL
Surabhi Bt	12.51	6.67	0.00	30.00	-	0.00	9.84	BETL
GNH-572 Cry1Ac	10.02	7.33	6.67	21.67	-	0.00	9.14	BETL
RAHBt 33*	-	0.00	-	NG	-	-	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations, NG-Not germinate



Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	16.83	31.67	7.50	12.60	-	18.94	17.51	
RHCBt-2205 (BGII)	17.05	28.33	0.00	16.77	-	42.62	20.95	
RAHBt 32	12.93	48.33	7.06	14.79	-	23.95	21.41	
CCH 19-2 Bt	15.11	31.67	11.11	14.18	-	34.33	21.28	
TBG 1/24	11.54	33.33	4.83	13.66	-	38.64	20.40	
NH 1901 Bt (ZC Bt-2)	14.34	28.33	7.41	10.43	-	39.84	20.07	
RAHBt 34	11.29	35.00	9.60	17.37	-	19.11	18.47	
Sunantha Bt	12.14	33.33	17.35	16.74	-	18.27	19.57	
PKV 081 Bt (ZC Bt-1)	13.81	20.00	4.13	19.10	-	18.61	15.13	
NH 22065 Bt	15.55	26.67	6.96	15.15	-	18.45	16.55	
RAHBt 31	14.67	35.00	14.86	24.59	-	18.27	21.48	
GPC-15 Cry1Ac	16.40	36.67	20.25	15.44	-	18.20	21.39	
Suraj Super Bt	12.77	31.67	4.60	13.40	-	22.97	17.08	
Surabhi Bt	16.10	25.00	5.88	31.06	-	18.53	19.31	
GNH-572 Cry1Ac	13.47	23.33	13.70	14.64	-	18.32	16.69	
RAHBt 33*	-	0.00	-	NG	-	-	0.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
NH 22067 Bt	11.18	6.33	4.58	4.07	-	9.37	7.11	
RHCBt-2205 (BGII)	11.43	5.67	0.00	4.82	-	18.30	8.04	
RAHBt 32	7.26	9.67	5.00	5.22	-	9.93	7.42	
CCH 19-2 Bt	9.17	6.33	4.32	3.62	-	18.83	8.46	
TBG 1/24	6.28	6.67	3.10	4.78	-	20.11	8.19	
NH 1901 Bt (ZC Bt-2)	8.35	5.67	4.01	5.78	-	19.62	8.69	
RAHBt 34	5.82	7.00	5.60	5.54	-	8.85	6.56	
Sunantha Bt	6.59	6.67	9.44	6.93	-	8.57	7.64	
PKV 081 Bt (ZC Bt-1)	8.15	4.00	3.31	6.81	-	8.30	6.11	
NH 22065 Bt	9.90	5.33	4.13	3.87	-	5.66	5.78	
RAHBt 31	8.78	7.00	8.45	4.81	-	8.27	7.46	
GPC-15 Cry1Ac	10.67	7.33	12.34	4.39	-	8.22	8.59	
Suraj Super Bt	6.78	6.33	2.01	6.51	-	6.72	5.67	
Surabhi Bt	10.08	5.00	2.70	5.34	-	8.61	6.35	
GNH-572 Cry1Ac	7.80	4.67	8.22	4.67	-	8.81	6.83	
RAHBt 33*	-	0.00	-	NG	-	-	0.00	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, NG-Not germinate



Reaction to Diseases

Table 7(c): Initial Evaluation Trial of Hirsutum Varieties – Irrigated (IET Variety IRR) under unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																					
			Junagarh											Rahuri										
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
8	52121	NH 22067 Bt	14.0	R	7.5	R	21.5	R	24.0	R	26.7	MR	0.0	DF	0.0	DF	7.7	R	11.1	R	6.4	R	0.0	DF
13	52122	RHCbt-2205 (BGII)	14.5	R	5.5	R	30.0	R	29.0	MR	20.0	R	0.0	DF	0.0	DF	9.3	R	13.6	R	12.2	R	0.0	DF
16	52123	RAHBt 32	18.0	R	10.0	R	19.5	R	59.5	MS	33.3	MR	0.0	DF	0.0	DF	26.9	MR	10.0	R	11.9	R	0.0	DF
1	52124	CCH 19-2 Bt	15.5	R	7.5	R	25.0	MR	39.5	MR	20.0	R	0.0	DF	0.0	DF	7.4	R	29.2	MR	18.4	R	0.0	DF
4	52125	TBG 1/24	21.5	R	9.5	R	17.5	R	22.0	R	6.7	R	0.0	DF	0.0	DF	11.8	R	9.4	R	8.8	R	0.0	DF
9	52126	NH 1901 Bt (ZC Bt-2)	14.5	R	8.0	R	20.0	R	29.0	MR	26.7	MR	0.0	DF	0.0	DF	30.6	MR	9.7	R	10.6	R	0.0	DF
12	52127	RAHBt 34	17.5	R	12.5	R	30.0	R	30.0	MR	13.3	R	0.0	DF	0.0	DF	4.0	R	13.7	R	12.1	R	0.0	DF
14	52128	Sunantha Bt	23.0	R	8.5	R	18.5	R	48.0	MR	20.0	R	0.0	DF	0.0	DF	13.2	R	25.2	MR	23.4	R	0.0	DF
2	52129	PKV 081 Bt (ZC Bt-1)	25.5	MR	9.0	R	18.5	R	38.5	MR	13.3	R	0.0	DF	0.0	DF	8.8	R	13.7	R	16.1	R	0.0	DF
5	52130	NH 22065 Bt	15.5	R	10	R	20.0	R	33.0	MR	26.7	MR	0.0	DF	0.0	DF	8.3	R	5.4	R	21.2	R	0.0	DF
10	52131	RAHBt 31	15.5	R	8.0	R	15.5	R	50.5	MS	6.7	R	0.0	DF	0.0	DF	42.8	MR	17.1	R	24.5	R	0.0	DF
15	52132	GPC-15 Cry1Ac	21.5	R	10	R	19.0	R	34.0	MR	20.0	R	0.0	DF	0.0	DF	30.1	MR	17.4	R	6.5	R	0.0	DF
3	52133	Suraj Super Bt	33.5	MR	9.0	R	16.5	R	53.5	MS	20.0	R	0.0	DF	0.0	DF	28.8	MR	26.0	MR	9.4	R	0.0	DF
6	52134	Surabhi Bt	25.0	MR	8.0	R	16.0	R	29.0	MR	13.3	R	0.0	DF	0.0	DF	42.4	MR	10.0	R	7.7	R	0.0	DF
11	52135	GNH-572 Cry1Ac	24.0	R	7.0	R	18.0	R	35.5	MR	20.0	R	0.0	DF	0.0	DF	31.9	MR	25.8	MR	14.7	R	0.0	DF
7	52136	RAHBt 33	*= Not germinated																					



Advanced Evaluation Trial of Hirsutum Varieties (II) - Irrigated

Constitution of Trial

The trial was constituted with one Bt cotton varieties containing deregulated events along with three different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	1	52141	PKV 081 Bt (ZC Bt-2)	
2	2	52142	NH 22254 Bt	Nanded
3	3	52143	Local Check	
4	5	52144	Suraj Bt (ZC Bt-1)	
5	4	52145	Phule Yamuna (ZC Non-Bt)	

The zonal check variety **PKV 081 Bt (ZC Bt-2)** was not released for the central zone under irrigated conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

The trial was conducted in five different locations and detail is furnished below.

Location	JAU, Junagadh	SDAU, Talod	MPKV, Rahuri	RVSKVV, Khandwa	OUAT, Bhawanipatna	AAU, Anand
Local Check	GN. Cot 22	GN. Cot 22	Phule 688	JK 4	BS 30	GN. Cot 22

Spacing: Recommended spacing for the variety have been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Advanced Evaluation Trial of Hirsutum Varieties (II)**

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	123.0	146.0	147.4	125.8	115.4	131.5
2	Local Check	91.0	113.3	95.4	87.3	79.7	93.3
3	Suraj Bt (ZC Bt-1)	124.0	110.3	126.6	105.0	105.8	114.3
4	Phule Yamuna (ZC Non-Bt)	133.0	121.8	117.8	99.5	117.7	118.0
	CD @ 5%	15.6	17.7	16.3	8.4	17.1	
	CV%	8.4	9.2	9.6	5.3	9.6	

Number of monopodia in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	1.0	2.1	1.1	1.9	1.7	1.6
2	Local Check	3.1	2.0	1.2	1.8	2.4	2.1
3	Suraj Bt (ZC Bt-1)	3.9	2.7	1.2	1.8	1.6	2.2
4	Phule Yamuna (ZC Non-Bt)	2.2	1.8	1.2	1.9	1.5	1.7
	CD @ 5%	0.3	0.4	0.9	0.3	0.6	
	CV%	12.6	11.1	56.0	12.7	17.7	

Number of sympodia in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	16.8	18.0	15.3	12.7	15.1	15.6
2	Local Check	15.2	18.8	15.1	12.0	13.0	14.8
3	Suraj Bt (ZC Bt-1)	17.8	18.7	15.5	13.1	16.7	16.4
4	Phule Yamuna (ZC Non-Bt)	18.9	25.9	14.7	14.5	16.1	18.0
	CD @ 5%	2.0	NS	1.9	1.6	2.8	
	CV%	7.5	33.7	9.4	8.1	10.6	

Boll weight (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	3.8	5.3	3.7	4.1	3.6	4.1
2	Local Check	3.1	4.3	2.9	3.5	3.1	3.4
3	Suraj Bt (ZC Bt-1)	4.3	5.9	4.1	4.7	4.1	4.6
4	Phule Yamuna (ZC Non-Bt)	3.5	4.8	3.9	3.7	3.4	3.9
	CD @ 5%	0.4	0.8	0.7	0.2	0.6	
	CV%	7.4	10.2	13.3	3.7	10.1	



Number of bolls / plant in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	24.3	27.3	34.2	31.0	29.6	29.3
2	Local Check	31.8	30.0	37.3	29.0	33.1	32.2
3	Suraj Bt (ZC Bt-1)	26.2	24.8	34.0	28.7	38.8	30.5
4	Phule Yamuna (ZC Non-Bt)	33.6	28.9	32.0	32.2	38.6	33.1
	CD @ 5%	6.7	NS	6.2	2.9	8.6	
	CV%	14.8	12.7	13.4	6.4	14.5	

Number of bolls / sq.m.in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	51.4	50.5	63.4	42.7	54.9	52.6
2	Local Check	66.4	55.5	69.1	40.0	61.9	58.6
3	Suraj Bt (ZC Bt-1)	55.0	45.9	63.0	39.6	69.5	54.6
4	Phule Yamuna (ZC Non-Bt)	70.1	53.5	59.3	44.4	74.7	60.4
	CD @ 5%	13.7	NS	11.5	4.0	17.5	
	CV%	14.4	12.7	13.4	6.4	15.7	

Lint Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	4.6	4.7	4.7	4.0	4.3	4.5
2	Local Check	4.8	5.2	8.1	4.1	4.2	5.3
3	Suraj Bt (ZC Bt-1)	6.3	5.8	6.9	4.6	5.8	5.9
4	Phule Yamuna (ZC Non-Bt)	4.7	4.5	4.8	3.4	3.6	4.2
	CD @ 5%	1.0	0.7	2.5		0.4	
	CV%	12.9	9.2	31.1		4.5	

Seed Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	9.0	11.0	9.6	8.5	8.8	9.4
2	Local Check	8.6	9.0	9.2	7.0	6.8	8.1
3	Suraj Bt (ZC Bt-1)	11.0	10.8	10.8	8.4	10.0	10.2
4	Phule Yamuna (ZC Non-Bt)	9.1	9.8	10.0	7.4	7.5	8.8
	CD @ 5%	1.5	1.1	2.0		0.7	
	CV%	10.8	7.2	15.1		4.4	



Ginning outturn (%) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	33.9	29.9	32.9	31.8	32.8	32.3
2	Local Check	35.8	36.7	45.8	37.1	38.3	38.7
3	Suraj Bt (ZC Bt-1)	36.3	35.1	38.4	35.5	36.9	36.4
4	Phule Yamuna (ZC Non-Bt)	33.6	31.5	32.2	31.4	32.3	32.2
	CD @ 5%	1.8	1.1	7.2		1.0	
	CV%	3.3	2.2	14.5		1.7	

Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	27.4	28.2	26.1	25.9	26.7	26.9
2	Local Check	27.5	27.8	26.9	25.1	25.1	26.5
3	Suraj Bt (ZC Bt-1)	28.2	27.5	27.9	25.6	25.6	27.0
4	Phule Yamuna (ZC Non-Bt)	25.8	27.3	26.2	24.7	25.8	26.0

Uniformity index under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	83.0	87.0	84.4	82.0	84.0	84.1
2	Local Check	81.0	85.0	83.6	82.0	80.0	82.3
3	Suraj Bt (ZC Bt-1)	80.0	85.0	84.3	81.0	83.0	82.7
4	Phule Yamuna (ZC Non-Bt)	83.0	83.0	84.7	81.0	83.0	82.9

Micronaire under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	3.2	4.4	4.0	3.5	4.3	3.9
2	Local Check	3.7	5.0	4.7	3.7	4.7	4.4
3	Suraj Bt (ZC Bt-1)	4.0	4.8	3.4	3.8	4.7	4.1
4	Phule Yamuna (ZC Non-Bt)	4.4	4.9	4.7	4.3	4.5	4.6

Tenacity under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	29.0	30.1	27.8	26.8	28.6	28.5
2	Local Check	28.6	27.4	27.4	25.3	25.5	26.8
3	Suraj Bt (ZC Bt-1)	29.8	33.5	29.7	26.8	27.4	29.4
4	Phule Yamuna (ZC Non-Bt)	26.7	29.4	27.9	26.1	27.5	27.5



Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	6.66	14.97	9.78	8.27	8.57	9.65
2	Local Check	7.91	15.84	15.53	8.74	10.24	11.65
3	Suraj Bt (ZC Bt-1)	7.23	17.55	16.56	10.82	10.71	12.57
4	Phule Yamuna (ZC Non-Bt)	11.00	18.65	14.29	7.61	12.86	12.88
	CD @ 5%	2.12	1.60		2.10	2.49	
	CV%	17.31	6.50		16.34	12.95	

Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	NH 22254 Bt	8.97	8.25	1.02	7.60	9.76	7.12
2	Local Check	8.78	4.72	1.45	6.88	5.56	5.48
3	Suraj Bt (ZC Bt-1)	12.15	6.07	1.54	6.60	10.63	7.40
4	Phule Yamuna (ZC Non-Bt)	9.36	3.28	1.39	3.79	5.63	4.69
	CD @ 5%	2.73	1.22		1.41	2.93	
	CV%	17.22	12.12		16.14	22.38	

Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean	Rank	% Inc over best check
1	NH 22254 Bt	15.63	23.22	10.80	15.87	18.33	16.77	4	-16.0
2	Local Check	16.69	20.55	16.98	15.62	15.79	17.13	3	-14.2
3	Suraj Bt (ZC Bt-1)	19.39	23.62	18.09	17.42	21.35	19.97	1	0.0
4	Phule Yamuna (ZC Non-Bt)	20.35	21.92	15.68	11.39	18.49	17.57	2	-12.0
	CD @ 5%	2.86	2.12		2.66	3.52			
	CV%	10.17	6.10		12.36	10.89			



Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	9.50	2.64	2.11	9.13	12.36	30.20	10.99	AETL
NH 22254 Bt	6.30	3.28	2.13	8.87	15.60	28.28	10.74	AETL
Local Check	8.17	2.70	2.20	9.07	25.36	31.19	13.11	AETL
Suraj Bt (ZC Bt-1)	7.10	1.94	1.80	8.88	13.56	49.13	13.74	AETL
Phule Yamuna (ZC Non-Bt)	8.73	3.22	1.76	8.78	26.55	27.84	12.81	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Protected Conditions -Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	8.67	2.74	1.71	1.56	8.69	3.82	4.53	BETL
NH 22254 Bt	7.27	3.26	1.40	1.71	7.65	1.84	3.86	BETL
Local Check	6.57	2.79	1.38	2.02	6.37	3.33	3.74	BETL
Suraj Bt (ZC Bt-1)	5.90	2.10	1.73	1.79	4.65	1.29	2.91	BETL
Phule Yamuna (ZC Non-Bt)	7.97	3.21	1.51	1.67	5.66	2.56	3.76	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	II	III	I	I	-	I	II	
NH 22254 Bt	II	III	I	I	-	I	II	
Local Check	II	III	I	I	-	I	II	
Suraj Bt (ZC Bt-1)	II	III	I	I	-	I	II	
Phule Yamuna (ZC Non-Bt)	II	III	I	I	-	I	II	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions –Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	13.27	2.98	1.58	8.22	-	0.02	5.21	BETL
NH 22254 Bt	10.60	3.55	1.93	8.44	-	0.02	4.91	BETL
Local Check	9.83	3.04	1.73	8.16	-	0.02	4.56	BETL
Suraj Bt (ZC Bt-1)	14.33	2.15	1.62	8.76	-	0.29	5.43	BETL
Phule Yamuna (ZC Non-Bt)	11.97	3.49	1.69	8.71	-	0.31	5.23	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced Variety Trial in Central Zone under Protected Conditions –Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	12.17	2.31	0.00	1.09	13.20	1.02	4.96	BETL
NH 22254 Bt	11.40	2.82	0.00	1.44	11.32	1.44	4.74	BETL
Local Check	8.10	2.36	0.00	1.40	6.35	1.58	3.30	BETL
Suraj Bt (ZC Bt-1)	9.13	1.76	0.00	1.38	13.25	1.13	4.44	BETL
Phule Yamuna (ZC Non-Bt)	10.40	2.78	0.00	1.29	8.65	0.78	3.98	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Protected Conditions -Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	3.43	0.00	1.56	-	0.96	1.19	
NH 22254 Bt	0.00	3.60	0.00	1.67	-	1.16	1.28	
Local Check	0.00	3.35	0.00	1.67	-	0.73	1.15	
Suraj Bt (ZC Bt-1)	0.00	2.99	0.00	1.69	-	1.00	1.14	
Phule Yamuna (ZC Non-Bt)	0.00	3.56	0.00	1.71	-	0.62	1.18	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions- *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
52141	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
52142	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
52143	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
52144	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
52145	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.27	0.05	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.20	0.04	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Advanced Variety Trial in Central Zone under Protected Conditions –*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions -Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	4.65	1.30	0.16	1.78	14.25	1.11	3.87	AETL
NH 22254 Bt	2.20	2.90	0.04	1.67	11.35	0.00	3.03	AETL
Local Check	3.90	1.80	0.09	1.67	16.32	0.00	3.96	AETL
Suraj Bt (ZC Bt-1)	2.75	1.20	0.09	2.11	10.23	0.00	2.73	AETL
Phule Yamuna (ZC Non-Bt)	3.40	1.90	0.00	2.22	12.20	0.00	3.29	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* data based on 20 green bolls, , # Data based on 2 obseravtions

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand,TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	13.35	10.10	1.33	16.67	-	0.00	8.29	BETL
NH 22254 Bt	8.62	14.30	0.89	14.44	-	0.00	7.65	BETL
Local Check	12.09	10.70	1.67	15.56	-	0.00	8.00	BETL
Suraj Bt (ZC Bt-1)	9.87	4.70	1.11	15.56	-	0.00	6.25	BETL
Phule Yamuna (ZC Non-Bt)	10.80	12.40	1.44	17.78	-	0.00	8.48	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, # Data based on 2 obseravtions



Table: Advanced Variety Trial in Central Zone under Protected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	16.84	18.00	13.56	14.50	-	29.63	18.51	
NH 22254 Bt	11.18	32.00	16.85	12.77	-	41.93	22.95	
Local Check	15.49	22.00	17.58	17.18	-	39.72	22.39	
Suraj Bt (ZC Bt-1)	12.62	11.00	14.10	17.37	-	41.73	19.36	
Phule Yamuna (ZC Non-Bt)	14.61	27.00	14.72	14.08	-	20.31	18.14	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	11.40	6.60	8.51	4.45	-	9.68	8.13	
NH 22254 Bt	6.28	13.60	8.51	4.99	-	13.55	9.39	
Local Check	10.61	8.60	9.31	5.22	-	12.80	9.31	
Suraj Bt (ZC Bt-1)	7.70	2.20	8.21	6.11	-	17.64	8.37	
Phule Yamuna (ZC Non-Bt)	8.55	9.60	7.57	4.64	-	6.19	7.31	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions - No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
PKV 081 Bt (ZC Bt-2)	7.00	3.00	4.00	5.00	-	3.00	4.40	
NH 22254 Bt	7.00	3.00	4.00	5.00	-	3.00	4.40	
Local Check	7.00	3.00	4.00	5.00	-	3.00	4.40	
Suraj Bt (ZC Bt-1)	7.00	3.00	4.00	5.00	-	3.00	4.40	
Phule Yamuna (ZC Non-Bt)	7.00	3.00	4.00	5.00	-	3.00	4.40	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Reaction to Diseases

Table 8(a): Advanced Evaluation Trial of Hirsutum Varieties – Irrigated (AET-II Variety IRR) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																					
			Junagarh										Rahuri											
			ALS		BLB		GM		CoLS		internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	52141	PKV 081 Bt (ZC Bt-2)	24.8	R	2.5	R	23.3	R	20.7	R	11.1	R	0.0	DF	0.0	DF	9.1	R	17.2	R	4.3	R	0.0	DF
2	52142	NH 22254 Bt	30.0	MR	3.0	R	14.0	R	21.3	R	15.6	R	0.0	DF	0.0	DF	8.4	R	2.0	R	4.6	R	0.0	DF
3	52143	Local Check	24.2	R	4.7	R	25.8	MR	17.3	R	8.9	R	0.0	DF	0.0	DF	0.0	DF	12.3	R	13.5	R	0.0	DF
5	52144	Suraj Bt (ZC Bt-1)	16.7	R	2.2	R	20.0	R	18.2	R	11.1	R	0.0	DF	0.0	DF	7.9	R	9.1	R	7.7	R	0.0	DF
4	52145	Phule Yamuna (ZC Non-Bt)	22.0	R	6.2	R	15.7	R	35.5	MR	8.9	R	0.0	DF	0.0	DF	8.6	R	8.9	R	6.3	R	0.0	DF

Table 8(b): Advanced Evaluation Trial of Hirsutum Varieties – Irrigated (AET-II Variety IRR) under protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions							
			Khandwa							
			CLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	52141	PKV 081 Bt (ZC Bt-2)	52.5	MR	42.5	MR	70.0	MR	-	DF
2	52142	NH 22254 Bt	62.5	MS	7.5	R	17.5	R	-	DF
3	52143	Local Check	62.5	MS	7.5	R	17.5	R	-	DF
5	52144	Suraj Bt (ZC Bt-1)	60.0	MS	65.0	MS	22.5	R	-	DF
4	52145	Phule Yamuna (ZC Non-Bt)	75.0	MS	35.0	MR	40.0	MR	-	DF



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	10.07	2.97	3.60	12.36	-	19.28	9.65	BETL
NH 22254 Bt	6.87	3.61	3.80	13.07	-	7.23	6.91	BETL
Local Check	8.73	3.03	3.73	11.53	-	18.20	9.05	BETL
Suraj Bt (ZC Bt-1)	7.70	2.28	4.07	12.13	-	17.07	8.65	BETL
Phule Yamuna (ZC Non-Bt)	9.23	3.56	3.93	12.76	-	7.28	7.35	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	9.33	3.02	3.13	2.98	-	2.84	4.26	BETL
NH 22254 Bt	8.00	3.68	3.53	3.29	-	3.91	4.48	BETL
Local Check	7.27	3.08	3.07	3.47	-	1.47	3.67	BETL
Suraj Bt (ZC Bt-1)	6.60	2.32	3.40	3.62	-	1.67	3.52	BETL
Phule Yamuna (ZC Non-Bt)	8.67	3.63	3.27	3.16	-	0.24	3.79	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	II	III	I	I	-	II	II	
NH 22254 Bt	II	III	I	I	-	I	II	
Local Check	II	III	I	I	-	I	II	
Suraj Bt (ZC Bt-1)	II	II	I	I	-	I	I	
Phule Yamuna (ZC Non-Bt)	II	III	I	I	-	I	II	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions –Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	13.87	3.48	3.27	12.22	-	0.00	6.57	BETL
NH 22254 Bt	11.27	4.05	3.27	11.96	-	0.00	6.11	BETL
Local Check	10.50	3.54	3.80	11.91	-	0.00	5.95	BETL
Suraj Bt (ZC Bt-1)	15.07	2.65	3.47	11.82	-	0.00	6.60	BETL
Phule Yamuna (ZC Non-Bt)	12.53	3.99	2.80	12.73	-	0.00	6.41	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions –Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	12.60	2.71	0.07	2.18	-	0.00	3.51	BETL
NH 22254 Bt	11.83	3.22	0.13	2.42	-	0.67	3.66	BETL
Local Check	8.57	2.76	0.13	2.33	-	0.56	2.87	BETL
Suraj Bt (ZC Bt-1)	9.63	2.16	0.27	2.36	-	0.44	2.97	BETL
Phule Yamuna (ZC Non-Bt)	10.87	3.18	0.00	2.29	-	1.00	3.47	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions -Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	4.85	0.00	2.53	-	0.00	1.48	
NH 22254 Bt	0.00	4.95	0.00	2.56	-	0.67	1.63	
Local Check	0.00	4.79	0.00	2.78	-	0.44	1.60	
Suraj Bt (ZC Bt-1)	0.00	4.63	0.00	2.87	-	0.33	1.57	
Phule Yamuna (ZC Non-Bt)	0.00	4.24	0.00	2.78	-	0.56	1.51	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions- *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions –*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions -Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	4.90	3.20		2.50	-	2.56	3.29	AETL
NH 22254 Bt	2.50	5.30		2.00	-	0.89	2.67	AETL
Local Check	4.20	3.80		2.17	-	0.00	2.54	AETL
Suraj Bt (ZC Bt-1)	2.95	2.80		2.83	-	2.67	2.81	AETL
Phule Yamuna (ZC Non-Bt)	3.65	4.10		3.00	-	0.00	2.69	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 22254 Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Local Check	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraj Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Phule Yamuna (ZC Non-Bt)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions-Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	13.85	10.60	6.67	21.11	-	27.78	16.00	AETL
NH 22254 Bt	9.10	14.70	0.00	20.00	-	8.89	10.54	AETL
Local Check	12.56	11.10	6.67	18.89	-	0.00	9.84	BETL
Suraj Bt (ZC Bt-1)	10.37	5.10	3.33	22.22	-	28.89	13.98	AETL
Phule Yamuna (ZC Non-Bt)	11.29	12.80	6.67	21.11	-	0.00	10.37	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	17.18	30.00	9.00	16.65	-	17.29	18.02	
NH 22254 Bt	11.54	44.00	13.64	15.55	-	19.80	20.91	
Local Check	15.83	34.00	8.91	21.01	-	36.17	23.18	
Suraj Bt (ZC Bt-1)	12.97	23.00	12.73	20.51	-	39.86	21.81	
Phule Yamuna (ZC Non-Bt)	14.97	39.00	10.31	16.71	-	12.95	18.79	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
PKV 081 Bt (ZC Bt-2)	11.74	6.00	17.46	5.65	-	4.25	9.02	
NH 22254 Bt	6.66	8.80	21.67	5.92	-	5.80	9.77	
Local Check	10.95	6.80	17.37	6.75	-	16.67	11.71	
Suraj Bt (ZC Bt-1)	8.04	4.60	20.90	7.28	-	21.76	12.52	
Phule Yamuna (ZC Non-Bt)	8.86	7.80	18.73	5.56	-	4.13	9.02	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 8(c): Advanced Evaluation Trial of Hirsutum Varieties – Irrigated (AET-II Variety IRR) under Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																					
			Junagarh												Rahuri									
			ALS		BLB		GM		CoLS		Internal Boll rot		CoLS		GM		TSV		ALB		BLB		RR	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	52141	PKV 081 Bt (ZC Bt-2)	25.5	MR	8.0	R	27.0	MR	34.0	MR	13.3	R	0.0	DF	0.0	DF	5.7	R	25.5	R	8.4	R	0.0	DF
2	52142	NH 22254 Bt	32.5	MR	10.0	R	16.0	R	30.0	MR	13.3	R	0.0	DF	0.0	DF	9.2	R	8.3	R	8.8	R	0.0	DF
3	52143	Local Check	25.0	MR	9.0	R	27.0	MR	26.0	MR	6.7	R	0.0	DF	0.0	DF	6.7	R	20.0	R	18.9	R	0.0	DF
5	52144	Suraj Bt (ZC Bt-1)	25.0	MR	8.5	R	11.0	R	20.5	R	20.0	R	0.0	DF	0.0	DF	12.8	R	13.0	R	10.6	R	0.0	DF
4	52145	Phule Yamuna (ZC Non-Bt)	23.0	R	11.5	R	23.5	R	35.0	MR	6.7	R	0.0	DF	0.0	DF	6.8	R	8.1	R	10.6	R	0.0	DF



Agronomic Evaluation

KHANDWA (NH 22254 Bt)

The results of agronomic requirement studies conducted to evaluate the effect of different spacing and nitrogen levels on seed cotton yield of pre released Bt variety NH 22254 Bt revealed that seed cotton yield did not differ significantly due to spacing levels, nitrogen levels, or their interaction (Table 18).

Table 18. Seed cotton yield (kg/ha) of NH 22254 Bt as influenced by spacing levels and nutrient levels at Khandwa

Treatments	S ₁ :90 X 45 cm	S ₂ : 90 X 60 cm	S ₃ : 90 X 75 cm	Mean (Nitrogen)	ANOVA	SEd	CD (5%)
N ₁ : 75 % NPK	1986	2195	1666	1949	Spacing	338.55	NS
N ₂ : 100 % NPK	2091	2461	1740	2097	Nitrogen	338.55	NS
N ₃ : 125 % NPK	1965	2151	1744	1953	S X N	575.53	NS
Mean(spacing)	2014	2269	1716				

Basic parameters: pH: 7.852, EC: 0.480 dSm⁻¹, OC (%): 0.571, Available N: 235 kg/ha, Available P₂O₅: 13.6 kg/ha, Available K₂O: 385 kg/ha, Recommended nutrients: 120:60:40 kg NPK/ha, Genotype: RSCH-999 BGII, Environment: Irrigated, Total rainfall during cropping period: 866.5 mm



Initial Evaluation Trial of Compact Hirsutum Varieties in Central Zone - Irrigated

Constitution of Trial

The trial was constituted with seven Bt cotton varieties containing deregulated events along with two different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	9	52151	Nano Bt	CICR, Coimbatore
2	1	52152	Suraksha Bt	CICR, Coimbatore
3	4	52153	Subiksha Bt	CICR, Coimbatore
4	7	52154	TBG 101/24 BG II	CRS, Talod
5	2	52155	CCH 25-1 Bt II	CICR, Coimbatore
6	5	52156	PKV 081 Bt (ZC Bt-1)	
7	8	52157	NH 1901 Bt (ZC Bt-2)	
8	6	52158	CCH 25-3 Bt II	CICR, Coimbatore
9	3	52159	CCH 25-4 Bt II	CICR, Coimbatore

The zonal check variety **PKV 081 Bt (ZC Bt-2)** was not released for the central zone under irrigated conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

The trial was conducted in six different locations viz., Junagadh, Talod, Rahuri, Anand, Khandwa, and Bhawanipatna.

Spacing: Closer spacing of 90 cm x 15 cm has been followed.

Number of rows: 6 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	136.0	151.5	121.3	103.3	133.2	129.1
2	Suraksha Bt	145.0	188.0	150.3	111.7	123.2	143.6
3	Subiksha Bt	134.0	157.7	176.0	105.3	146.3	143.9
4	TBG 101/24 BG II	128.0	164.6	165.0	105.3	150.3	142.6
5	CCH 25-1 Bt II	152.0	148.9	139.3	108.0	133.7	136.4
6	NH 1901 Bt (ZC Bt-2)	142.0	161.2	177.7	104.7	159.8	149.1
7	CCH 25-3 Bt II	138.0	173.2	181.3	102.3	158.9	150.7
8	CCH 25-4 Bt II	121.0	150.6	136.3	90.7	129.4	125.6
	CD @ 5%	18.5	16.3	13.4	7.2	19.5	
	CV%	7.9	5.8	5.1	4.0	7.9	

Number of monopodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	1.4	0.2	0.1	1.3	1.2	0.8
2	Suraksha Bt	0.7	0.0	0.5	1.6	1.9	0.9
3	Subiksha Bt	0.5	0.1	0.1	1.4	1.8	0.8
4	TBG 101/24 BG II	1.0	0.7	0.5	1.9	1.6	1.1
5	CCH 25-1 Bt II	0.7	0.0	0.1	1.1	1.6	0.7
6	NH 1901 Bt (ZC Bt-2)	0.4	0.0	0.5	1.7	1.2	0.8
7	CCH 25-3 Bt II	0.5	0.0	0.0	1.3	1.9	0.7
8	CCH 25-4 Bt II	0.9	0.2	0.2	1.7	2.1	1.0
	CD @ 5%	0.2	0.4	0.5	0.3	0.5	
	CV%	16.3	148.1	103.7	12.6	18.5	

Number of sympodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	16.5	13.3	13.6	10.9	15.3	13.9
2	Suraksha Bt	18.7	14.5	13.3	9.5	18.5	14.9
3	Subiksha Bt	14.5	13.8	14.9	10.0	15.5	13.7
4	TBG 101/24 BG II	17.7	13.5	14.5	9.6	18.5	14.8
5	CCH 25-1 Bt II	15.5	12.7	14.3	9.9	19.2	14.3
6	NH 1901 Bt (ZC Bt-2)	18.3	12.4	15.9	12.1	20.6	15.9
7	CCH 25-3 Bt II	14.5	15.1	13.1	9.6	18.0	14.1
8	CCH 25-4 Bt II	16.5	12.7	15.7	10.4	17.7	14.6
	CD @ 5%	1.6	NS	2.9	2.0	2.1	
	CV%	5.6	7.3	11.7	10.9	6.9	



Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	4.4	3.9	3.9	4.4	4.0	4.1
2	Suraksha Bt	4.2	4.4	3.6	4.2	4.1	4.1
3	Subiksha Bt	4.0	4.1	4.2	4.6	4.1	4.2
4	TBG 101/24 BG II	3.9	4.6	3.4	4.3	4.3	4.1
5	CCH 25-1 Bt II	4.9	6.1	5.0	5.9	4.7	5.3
6	NH 1901 Bt (ZC Bt-2)	3.5	4.0	3.5	4.9	3.4	3.9
7	CCH 25-3 Bt II	4.1	4.9	4.2	5.6	4.5	4.7
8	CCH 25-4 Bt II	4.2	5.2	4.6	6.8	4.8	5.1
	CD @ 5%	0.6	1.1	0.5	0.2	0.5	
	CV%	8.1	13.9	7.4	2.4	6.6	

Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	8.6	34.8	20.7	21.9	11.8	19.6
2	Suraksha Bt	9.9	46.0	19.6	19.4	16.2	22.2
3	Subiksha Bt	6.5	39.8	20.0	20.1	15.2	20.3
4	TBG 101/24 BG II	8.4	56.8	24.9	19.8	25.2	27.0
5	CCH 25-1 Bt II	5.5	30.9	19.6	19.6	21.3	19.4
6	NH 1901 Bt (ZC Bt-2)	11.6	52.3	23.8	25.2	28.0	28.2
7	CCH 25-3 Bt II	7.2	26.3	21.9	20.1	22.5	19.6
8	CCH 25-4 Bt II	7.5	32.7	20.4	20.3	20.8	20.3
	CD @ 5%	2.0	12.1	5.5	3.2	4.6	
	CV%	13.6	16.8	15.1	8.8	13.1	

Number of bolls / sq.m. in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	55.8	248.3	38.3	161.8	78.5	116.5
2	Suraksha Bt	64.1	328.7	36.3	143.6	112.3	137.0
3	Subiksha Bt	44.4	284.4	37.0	149.0	107.9	124.5
4	TBG 101/24 BG II	55.7	405.8	46.2	146.5	114.3	153.7
5	CCH 25-1 Bt II	36.9	220.7	36.3	145.0	120.1	111.8
6	NH 1901 Bt (ZC Bt-2)	74.9	373.9	44.1	186.5	207.0	177.3
7	CCH 25-3 Bt II	46.3	188.1	40.5	148.5	166.5	118.0
8	CCH 25-4 Bt II	48.3	233.8	37.8	150.5	133.9	120.9
	CD @ 5%	10.8	86.6	10.1	23.9	28.3	
	CV%	11.3	16.8	15.1	8.8	12.7	



Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	4.5	5.1	5.4	4.6	5.3	5.0
2	Suraksha Bt	5.1	5.3	6.1	4.9	5.1	5.3
3	Subiksha Bt	4.2	5.0	4.3	4.5	4.2	4.4
4	TBG 101/24 BG II	4.5	4.6	4.8	4.3	3.9	4.4
5	CCH 25-1 Bt II	5.7	5.8	4.9	5.3	5.1	5.4
6	NH 1901 Bt (ZC Bt-2)	5.2	5.1	5.7	4.5	4.1	4.9
7	CCH 25-3 Bt II	4.8	4.6	4.3	4.4	4.1	4.4
8	CCH 25-4 Bt II	4.8	5.0	5.1	5.6	4.9	5.1
	CD @ 5%	0.8	NS	1.3		0.4	
	CV%	9.5	11.5	14.9		5.2	

Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	10.0	10.0	10.7	10.1	10.1	10.2
2	Suraksha Bt	11.0	11.0	11.7	10.4	9.8	10.8
3	Subiksha Bt	10.2	11.0	8.3	10.0	8.9	9.7
4	TBG 101/24 BG II	8.7	9.3	8.7	8.5	7.0	8.4
5	CCH 25-1 Bt II	12.0	12.3	10.0	11.2	9.8	11.1
6	NH 1901 Bt (ZC Bt-2)	8.7	9.7	9.3	7.5	6.8	8.4
7	CCH 25-3 Bt II	11.7	11.3	10.0	9.7	9.0	10.3
8	CCH 25-4 Bt II	10.7	12.3	10.7	10.7	10.1	10.9
	CD @ 5%	1.5	2.0	2.5		0.6	
	CV%	8.2	10.3	15.0		3.6	

Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	31.0	33.5	33.6	31.4	34.4	32.8
2	Suraksha Bt	32.0	32.6	34.5	31.8	34.1	33.0
3	Subiksha Bt	29.0	31.2	33.9	31.1	32.2	31.5
4	TBG 101/24 BG II	34.2	33.2	35.5	33.4	35.5	34.4
5	CCH 25-1 Bt II	32.3	32.0	32.8	32.1	34.2	32.7
6	NH 1901 Bt (ZC Bt-2)	37.3	34.3	38.0	37.6	37.7	37.0
7	CCH 25-3 Bt II	29.0	28.9	30.1	31.1	31.5	30.1
8	CCH 25-4 Bt II	31.0	28.9	32.4	34.2	32.7	31.8
	CD @ 5%	1.9	2.6	1.9		1.5	
	CV%	3.5	4.7	3.2		2.5	



Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	31.1	33.3	33.1	29.3	29.7	31.3
2	Suraksha Bt	33.9	32.5	32.8	32.6	30.3	32.4
3	Subiksha Bt	32.2	32.0	30.7	32.3	34.7	32.4
4	TBG 101/24 BG II	29.2	28.3	25.6	25.8	26.3	27.0
5	CCH 25-1 Bt II	33.2	33.1	32.3	31.4	30.7	32.1
6	NH 1901 Bt (ZC Bt-2)	26.7	26.1	26.4	24.3	25.3	25.8
7	CCH 25-3 Bt II	33.8	33.3	33.9	32.1	33.8	33.4
8	CCH 25-4 Bt II	32.9	36.5	31.3	28.9	33.0	32.5

Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	85.0	88.0	86.8	84.0	84.0	85.6
2	Suraksha Bt	83.0	84.0	82.3	86.0	83.0	83.7
3	Subiksha Bt	84.0	84.0	84.3	86.0	86.0	84.9
4	TBG 101/24 BG II	83.0	85.0	81.4	83.0	82.0	82.9
5	CCH 25-1 Bt II	84.0	86.0	80.8	85.0	84.0	84.0
6	NH 1901 Bt (ZC Bt-2)	83.0	83.0	83.7	81.0	84.0	82.9
7	CCH 25-3 Bt II	83.0	82.0	83.2	84.0	85.0	83.4
8	CCH 25-4 Bt II	84.0	86.0	82.7	83.0	85.0	84.1

Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	3.6	4.8	3.6	3.1	4.0	3.8
2	Suraksha Bt	3.5	4.1	3.5	3.4	4.2	3.7
3	Subiksha Bt	3.8	4.8	4.2	3.4	4.2	4.1
4	TBG 101/24 BG II	3.9	4.6	4.1	3.5	4.9	4.2
5	CCH 25-1 Bt II	4.1	3.9	3.6	3.5	4.2	3.9
6	NH 1901 Bt (ZC Bt-2)	4.7	4.7	4.0	3.5	4.5	4.3
7	CCH 25-3 Bt II	3.4	4.0	3.4	3.1	4.5	3.7
8	CCH 25-4 Bt II	3.7	4.2	3.6	3.6	4.0	3.8



Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	30.9	34.1	32.2	31.0	31.5	31.9
2	Suraksha Bt	33.7	34.0	32.9	32.2	30.3	32.6
3	Subiksha Bt	33.2	32.0	32.7	32.6	32.0	32.5
4	TBG 101/24 BG II	31.3	29.9	27.1	26.6	26.8	28.3
5	CCH 25-1 Bt II	31.5	32.2	32.8	28.9	31.0	31.3
6	NH 1901 Bt (ZC Bt-2)	27.2	26.9	26.4	25.2	27.0	26.5
7	CCH 25-3 Bt II	32.0	32.1	32.2	32.6	31.6	32.1
8	CCH 25-4 Bt II	33.4	35.4	32.3	30.5	32.6	32.8

Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	12.00	6.15	21.84	8.59	8.02	11.32
2	Suraksha Bt	9.37	8.57	17.62	6.50	9.88	10.39
3	Subiksha Bt	4.92	7.25	14.52	4.82	6.27	7.56
4	TBG 101/24 BG II	9.03	15.54	27.67	4.99	11.52	13.75
5	CCH 25-1 Bt II	5.71	11.31	16.08	3.81	9.05	9.19
6	NH 1901 Bt (ZC Bt-2)	13.72	13.49	29.08	8.56	15.33	16.04
7	CCH 25-3 Bt II	9.14	4.79	13.48	3.25	10.39	8.21
8	CCH 25-4 Bt II	6.28	10.32	10.34	4.07	6.38	7.48
	CD @ 5%	3.37	2.37		1.56	1.70	
	CV%	20.51	14.15		16.09	10.10	

Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean
1	Nano Bt	8.35	7.81	23.48	9.84	4.42	10.78
2	Suraksha Bt	9.60	12.00	17.75	15.94	6.07	12.27
3	Subiksha Bt	4.80	9.54	19.29	15.39	7.51	11.31
4	TBG 101/24 BG II	9.60	10.62	24.15	9.32	4.73	11.68
5	CCH 25-1 Bt II	6.29	8.28	24.92	15.52	8.74	12.75
6	NH 1901 Bt (ZC Bt-2)	7.78	8.33	24.41	16.46	5.76	12.55
7	CCH 25-3 Bt II	5.37	8.48	21.30	18.66	7.82	12.33
8	CCH 25-4 Bt II	8.80	7.32	19.70	14.07	11.73	12.32
	CD @ 5%	2.72	2.21		3.89	1.89	
	CV%	20.37	13.22		15.75	15.82	



Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Junagadh	Talod	Anand	Rahuri	B'Patna	Mean	Rank	% Inc over best check
1	Nano Bt	20.34	13.96	45.32	18.43	12.45	22.10	4	-22.7
2	Suraksha Bt	18.98	20.58	35.37	22.44	15.94	22.66	3	-20.7
3	Subiksha Bt	9.72	16.79	33.81	20.21	13.78	18.86	8	-34.0
4	TBG 101/24 BG II	18.63	26.16	51.83	14.31	16.25	25.44	2	-11.0
5	CCH 25-1 Bt II	12.00	19.59	41.00	19.30	17.80	21.94	5	-23.2
6	NH 1901 Bt (ZC Bt-2)	21.49	21.81	53.49	25.02	21.09	28.58	1	0.0
7	CCH 25-3 Bt II	14.52	13.26	34.77	21.91	18.21	20.53	6	-28.2
8	CCH 25-4 Bt II	15.09	17.64	30.04	18.14	18.10	19.80	7	-30.7
	CD @ 5%	3.55	3.22		5.70	2.92			
	CV%	11.92	9.44		16.57	10.16			



Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	8.10	2.44	2.09	9.31	21.26	10.11	8.89	BETL
Suraksha Bt	7.13	3.71	2.24	10.67	15.32	7.89	7.83	BETL
Subiksha Bt	6.37	3.68	2.07	9.76	21.36	8.22	8.58	BETL
TBG 101/24 BG II	8.40	1.75	2.18	8.71	12.36	15.58	8.16	BETL
CCH 25-1 Bt II	8.87	2.68	2.09	9.22	14.26	10.80	7.99	BETL
PKV 081 Bt (ZC Bt-1)	10.00	2.69	2.16	10.53	18.90	25.24	11.59	AETL
NH 1901 Bt (ZC Bt-2)	9.50	1.88	2.07	9.67	23.62	16.42	10.53	AETL
CCH 25-3 Bt II	6.83	3.70	2.07	10.36	13.25	25.04	10.21	AETL
CCH 25-4 Bt II	7.73	4.67	2.18	9.18	16.34	14.53	9.10	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	6.37	1.67	1.40	1.97	11.25	1.36	4.00	BETL
Suraksha Bt	5.87	2.67	1.49	1.96	9.30	1.62	3.82	BETL
Subiksha Bt	5.43	2.71	1.38	1.93	8.36	2.63	3.74	BETL
TBG 101/24 BG II	7.60	0.75	1.18	1.80	9.60	1.41	3.72	BETL
CCH 25-1 Bt II	9.07	1.71	1.62	2.13	12.35	1.62	4.75	BETL
PKV 081 Bt (ZC Bt-1)	8.00	1.71	1.44	1.89	13.20	1.13	4.56	BETL
NH 1901 Bt (ZC Bt-2)	6.73	0.88	1.51	1.91	10.20	1.16	3.73	BETL
CCH 25-3 Bt II	5.07	2.72	1.56	2.16	8.36	1.36	3.54	BETL
CCH 25-4 Bt II	7.07	3.67	1.42	1.93	9.35	1.68	4.19	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	II	II	I	I	-	I	II	
Suraksha Bt	II	III	I	I	-	I	II	
Subiksha Bt	II	III	I	II	-	I	II	
TBG 101/24 BG II	II	I	I	I	-	I	I	
CCH 25-1 Bt II	II	II	I	II	-	I	II	
PKV 081 Bt (ZC Bt-1)	II	II	I	I	-	I	II	
NH 1901 Bt (ZC Bt-2)	II	I	I	I	-	I	I	
CCH 25-3 Bt II	II	III	I	II	-	I	II	
CCH 25-4 Bt II	II	IV	I	II	-	I	II	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	9.90	3.65	0.96	8.31	-	0.29	4.62	BETL
Suraksha Bt	7.87	4.92	0.87	8.98	-	0.33	4.59	BETL
Subiksha Bt	10.87	4.86	0.96	8.78	-	0.00	5.09	BETL
TBG 101/24 BG II	12.07	3.00	1.11	8.89	-	0.00	5.01	BETL
CCH 25-1 Bt II	8.67	4.03	1.09	8.47	-	0.00	4.45	BETL
PKV 081 Bt (ZC Bt-1)	12.63	3.92	1.04	9.47	-	0.00	5.41	BETL
NH 1901 Bt (ZC Bt-2)	8.37	3.13	0.91	8.64	-	0.09	4.23	BETL
CCH 25-3 Bt II	9.27	4.90	1.04	9.33	-	0.04	4.92	BETL
CCH 25-4 Bt II	11.57	5.92	0.956	7.40	-	0.00	5.17	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	9.27	2.32	0.62	1.36	12.19	0.36	4.35	BETL
Suraksha Bt	7.20	3.28	0.67	1.29	16.34	0.22	4.83	BETL
Subiksha Bt	5.37	3.30	0.73	1.31	9.65	0.62	3.50	BETL
TBG 101/24 BG II	6.40	1.34	0.76	1.18	12.72	0.38	3.80	BETL
CCH 25-1 Bt II	6.80	2.29	0.84	1.27	8.66	0.56	3.40	BETL
PKV 081 Bt (ZC Bt-1)	7.73	2.31	0.89	1.11	12.36	0.49	4.15	BETL
NH 1901 Bt (ZC Bt-2)	5.73	1.47	0.82	1.33	11.02	0.38	3.46	BETL
CCH 25-3 Bt II	8.13	3.29	0.71	1.36	10.96	0.53	4.16	BETL
CCH 25-4 Bt II	8.70	4.28	0.84	1.20	9.68	0.89	4.27	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	0.00	2.73	0.00	1.69	-	0.29	0.94	
Suraksha Bt	0.00	2.15	0.00	1.58	-	0.24	0.79	
Subiksha Bt	0.00	2.12	0.00	1.78	-	0.29	0.84	
TBG 101/24 BG II	0.00	2.26	0.00	1.96	-	0.27	0.90	
CCH 25-1 Bt II	0.00	2.39	0.00	1.71	-	0.20	0.86	
PKV 081 Bt (ZC Bt-1)	0.00	2.26	0.00	1.78	-	0.24	0.86	
NH 1901 Bt (ZC Bt-2)	0.00	2.12	0.00	1.82	-	0.27	0.84	
CCH 25-3 Bt II	0.00	1.99	0.00	1.56	-	0.42	0.79	
CCH 25-4 Bt II	0.00	2.26	0.00	1.76	-	0.40	0.88	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions–*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
Nano Bt	3.80	1.53	0.09	2.44	9.56	0.00	2.90	AETL
Suraksha Bt	4.90	2.58	0.18	1.78	10.26	0.44	3.36	AETL
Subiksha Bt	4.50	2.53	0.18	1.89	9.29	0.00	3.06	AETL
TBG 101/24 BG II	2.80	0.58	0.22	1.67	9.52	0.22	2.50	AETL
CCH 25-1 Bt II	3.50	1.58	0.00	1.89	13.26	0.22	3.41	AETL
PKV 081 Bt (ZC Bt-1)	2.20	1.52	0.36	2.00	15.36	0.22	3.61	AETL
NH 1901 Bt (ZC Bt-2)	2.50	0.71	0.11	1.44	14.22	0.44	3.24	AETL
CCH 25-3 Bt II	4.10	2.52	0.18	1.67	10.19	0.00	3.11	AETL
CCH 25-4 Bt II	3.10	3.50	0.02	1.78	12.20	0.22	3.47	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* data based on 20 green bolls, # data based on 2 observation

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions -Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions -Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	JU#	AN	TA	RA	KH*	BP	Mean	
Nano Bt	9.70	3.33	0.78	15.56	-	0.00	5.87	BETL
Suraksha Bt	11.50	4.25	0.56	15.56	-	2.22	6.82	BETL
Subiksha Bt	10.98	4.28	0.78	18.89	-	0.00	6.99	BETL
TBG 101/24 BG II	7.83	2.37	0.33	13.33	-	7.78	6.33	BETL
CCH 25-1 Bt II	9.17	3.22	0.00	16.67	-	2.22	6.25	BETL
PKV 081 Bt (ZC Bt-1)	6.67	3.16	1.22	17.78	-	2.22	6.21	BETL
NH 1901 Bt (ZC Bt-2)	7.22	2.38	0.89	13.33	-	2.22	5.21	BETL
CCH 25-3 Bt II	10.19	4.32	0.78	21.11	-	0.00	7.28	BETL
CCH 25-4 Bt II	8.28	4.83	0.67	16.67	-	2.22	6.53	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given, ,
data based on 2 observation



Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	12.88	25.00	30.18	15.23	-	60.84	28.83	
Suraksha Bt	14.64	30.00	7.64	27.64	-	59.40	27.86	
Subiksha Bt	14.26	30.33	8.83	25.50	-	45.89	24.96	
TBG 101/24 BG II	10.49	20.00	6.40	23.78	-	67.67	25.67	
CCH 25-1 Bt II	11.78	25.00	8.19	20.75	-	46.67	22.48	
PKV 081 Bt (ZC Bt-1)	9.47	23.83	7.61	22.40	-	59.43	24.55	
NH 1901 Bt (ZC Bt-2)	9.82	20.00	7.16	22.58	-	35.50	19.01	
CCH 25-3 Bt II	13.49	30.00	14.70	20.89	-	45.31	24.88	
CCH 25-4 Bt II	11.35	30.00	13.79	27.12	-	73.10	31.07	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	7.88	5.00	14.90	6.46	-	47.96	16.44	
Suraksha Bt	9.80	6.00	4.84	8.56	-	37.66	13.37	
Subiksha Bt	9.25	6.00	6.06	8.19	-	30.31	11.96	
TBG 101/24 BG II	5.87	4.00	3.90	9.14	-	35.45	11.67	
CCH 25-1 Bt II	7.04	5.00	4.76	7.15	-	2.78	5.35	
PKV 081 Bt (ZC Bt-1)	4.79	4.67	6.00	7.30	-	29.76	10.50	
NH 1901 Bt (ZC Bt-2)	5.12	4.00	6.55	9.21	-	11.12	7.20	
CCH 25-3 Bt II	8.47	6.00	5.64	4.54	-	31.17	11.16	
CCH 25-4 Bt II	6.31	6.00	7.77	8.11	-	43.06	14.25	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions - No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	JU	AN	TA	RA	KH*	BP	Mean	
Nano Bt	7.00	3.00	4.00	5.00	-	4.00	4.60	
Suraksha Bt	7.00	3.00	4.00	5.00	-	4.00	4.60	
Subiksha Bt	7.00	3.00	4.00	5.00	-	4.00	4.60	
TBG 101/24 BG II	7.00	3.00	4.00	5.00	-	4.00	4.60	
CCH 25-1 Bt II	7.00	3.00	4.00	5.00	-	4.00	4.60	
PKV 081 Bt (ZC Bt-1)	7.00	3.00	4.00	5.00	-	4.00	4.60	
NH 1901 Bt (ZC Bt-2)	7.00	3.00	4.00	5.00	-	4.00	4.60	
CCH 25-3 Bt II	7.00	3.00	4.00	5.00	-	4.00	4.60	
CCH 25-4 Bt II	7.00	3.00	4.00	5.00	-	4.00	4.60	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna,* Data not given



Reaction to Diseases

Table 9(a) Initial Evaluation Trial Hirsutum Varieties Irrigated (IET Hir –Compact Variety IRR) under protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																							
			Rahuri												Junagarh											
			CoLS		GM		TSV		ALB		BLB		RR		ALS		BLB		GM		CoLS		Internal Boll rot			
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR		
9	52151	Nano Bt	0.0	DF	0.0	DF	10.5	R	13.2	R	11.5	R	0.0	DF	16.3	R	12.8	R	12.0	R	57.3	MS	13.3	R		
1	52152	Suraksha Bt	0.0	DF	0.0	DF	9.8	R	10.0	R	11.1	R	0.0	DF	15.0	R	52.0	MS	16.2	R	44.3	MR	20.0	R		
4	52153	Subiksha Bt	0.0	DF	0.0	DF	8.3	R	11.5	R	0.0	DF	0.0	DF	14.7	R	21.8	R	17.5	R	11.0	R	11.1	R		
7	52154	TBG 101/24 BG II	0.0	DF	0.0	DF	12.5	R	15.1	R	13.6	R	0.0	DF	18.3	R	53.2	MS	10.5	R	10.5	R	22.2	R		
2	52155	CCH 25-1 Bt II	0.0	DF	0.0	DF	9.8	R	6.8	R	11.6	R	0.0	DF	23.0	R	5.5	R	14.0	R	8.5	R	26.7	MR		
5	52156	PKV 081 Bt (ZC Bt-1)	0.0	DF	0.0	DF	6.0	R	18.8	R	9.7	R	0.0	DF	20.0	R	15.2	R	26.5	MR	13.3	R	13.3	R		
8	52157	NH 1901 Bt (ZC Bt-2)	0.0	DF	0.0	DF	11.5	R	0.0	DF	11.4	R	0.0	DF	16.0	R	10.7	R	14.0	R	15.3	R	22.2	R		
6	52158	CCH 25-3 Bt II	0.0	DF	0.0	DF	0.0	DF	11.0	R	0.0	DF	0.0	DF	18.2	R	26.8	MR	16.3	R	9.7	R	22.2	R		
3	52159	CCH 25-4 Bt II	0.0	DF	0.0	DF	14.0	R	15.5	R	0.0	DF	0.0	DF	21.7	R	40.7	MR	14.3	R	54.7	MS	20.0	R		



Table 9(b) Initial Evaluation Trial Hirsutum Varieties Irrigated (IET Hir –Compact Variety IRR) under protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions							
			Khandwa							
			CoLS		ALS		GM		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
9	52151	Nano Bt	17.5	R	7.5	R	20.0	R	-	DF
1	52152	Suraksha Bt	16.3	R	2.5	R	12.5	R	-	DF
4	52153	Subiksha Bt	47.5	MR	32.5	MR	47.5	MR	-	DF
7	52154	TBG 101/24 BG II	15.0	R	22.5	R	50.0	MR	-	DF
2	52155	CCH 25-1 Bt II	7.5	R	7.5	R	37.5	MR	-	DF
5	52156	PKV 081 Bt (ZC Bt-1)	2.5	R	2.5	R	22.5	R	-	DF
8	52157	NH 1901 Bt (ZC Bt-2)	42.5	MR	7.5	R	17.5	R	-	DF
6	52158	CCH 25-3 Bt II	12.5	R	12.5	R	42.5	MR	-	DF
3	52159	CCH 25-4 Bt II	7.5	R	7.5	R	12.5	R	-	DF



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions –Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	8.23	2.79	3.67	13.00	-	17.58	9.05	BETL
Suraksha Bt	7.33	4.04	3.87	14.31	-	38.31	13.57	AETL
Subiksha Bt	6.60	4.01	3.60	13.47	-	16.58	8.85	BETL
TBG 101/24 BG II	8.53	2.08	4.67	12.64	-	30.89	11.76	AETL
CCH 25-1 Bt II	9.07	3.02	4.33	13.67	-	56.16	17.25	AETL
PKV 081 Bt (ZC Bt-1)	10.13	3.03	3.67	13.67	-	29.98	12.09	AETL
NH 1901 Bt (ZC Bt-2)	9.63	2.21	3.53	13.33	-	53.16	16.37	AETL
CCH 25-3 Bt II	7.00	4.03	3.20	14.18	-	45.91	14.86	AETL
CCH 25-4 Bt II	7.93	5.00	4.07	12.60	-	9.60	7.84	BETL

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Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	6.50	2.33	3.27	3.60	-	2.43	3.63	BETL
Suraksha Bt	6.03	3.33	3.47	3.67	-	3.31	3.96	BETL
Subiksha Bt	5.57	3.37	2.60	3.69	-	5.64	4.17	BETL
TBG 101/24 BG II	7.77	1.42	3.07	3.82	-	2.03	3.62	BETL
CCH 25-1 Bt II	9.23	2.38	3.53	3.76	-	3.66	4.51	BETL
PKV 081 Bt (ZC Bt-1)	8.17	2.38	2.93	3.62	-	1.70	3.76	BETL
NH 1901 Bt (ZC Bt-2)	6.90	1.54	3.47	3.76	-	1.67	3.47	BETL
CCH 25-3 Bt II	5.23	3.39	3.00	3.71	-	3.60	3.79	BETL
CCH 25-4 Bt II	7.17	4.33	2.53	3.67	-	1.86	3.91	BETL

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Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	II	III	I	I	-	I	II	
Suraksha Bt	II	IV	I	I	-	I	II	
Subiksha Bt	II	IV	I	II	-	II	II	
TBG 101/24 BG II	II	II	I	I	-	I	I	
CCH 25-1 Bt II	II	III	I	II	-	I	II	
PKV 081 Bt (ZC Bt-1)	II	III	I	I	-	I	II	
NH 1901 Bt (ZC Bt-2)	II	II	I	I	-	I	II	
CCH 25-3 Bt II	II	IV	I	II	-	I	II	
CCH 25-4 Bt II	II	IV	I	II	-	I	II	

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Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	10.10	3.98	4.07	12.07	-	0.00	6.04	BETL
Suraksha Bt	8.10	5.25	4.27	12.80	-	0.09	6.10	BETL
Subiksha Bt	11.10	5.19	4.00	12.62	-	0.02	6.59	BETL
TBG 101/24 BG II	12.23	3.33	5.13	12.73	-	0.00	6.69	BETL
CCH 25-1 Bt II	8.93	4.37	4.60	12.56	-	0.00	6.09	BETL
PKV 081 Bt (ZC Bt-1)	12.83	4.25	4.07	12.89	-	0.00	6.81	BETL
NH 1901 Bt (ZC Bt-2)	8.60	3.46	3.80	12.36	-	0.00	5.64	BETL
CCH 25-3 Bt II	9.50	5.24	3.53	12.78	-	0.09	6.23	BETL
CCH 25-4 Bt II	11.77	6.25	4.33	10.96	-	0.00	6.66	BETL

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Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	9.50	2.99	0.13	2.58	-	0.60	3.16	BETL
Suraksha Bt	7.43	3.95	0.00	2.62	-	0.33	2.87	BETL
Subiksha Bt	5.63	3.97	0.07	2.67	-	0.96	2.66	BETL
TBG 101/24 BG II	6.63	2.01	0.20	2.71	-	0.33	2.38	BETL
CCH 25-1 Bt II	7.03	2.95	0.00	2.78	-	0.53	2.66	BETL
PKV 081 Bt (ZC Bt-1)	7.97	2.98	0.13	2.47	-	0.27	2.76	BETL
NH 1901 Bt (ZC Bt-2)	6.00	2.14	0.07	2.84	-	0.53	2.32	BETL
CCH 25-3 Bt II	8.37	3.96	0.20	2.44	-	0.18	3.03	BETL
CCH 25-4 Bt II	8.93	4.95	0.07	2.58	-	0.87	3.48	BETL

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Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions –Natural Enemies

Name of Entry	Natural Enemies (No./ Plant)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	0.00	5.60	0.00	2.58	-	0.07	1.65	
Suraksha Bt	0.00	4.58	0.00	2.56	-	0.07	1.44	
Subiksha Bt	0.00	4.46	0.00	2.73	-	0.29	1.50	
TBG 101/24 BG II	0.00	4.68	0.00	2.91	-	0.00	1.52	
CCH 25-1 Bt II	0.00	4.81	0.00	2.67	-	0.24	1.54	
PKV 081 Bt (ZC Bt-1)	0.00	4.68	0.00	2.82	-	0.22	1.54	
NH 1901 Bt (ZC Bt-2)	0.00	4.54	0.00	2.98	-	0.00	1.50	
CCH 25-3 Bt II	0.00	4.41	0.00	2.71	-	0.20	1.46	
CCH 25-4 Bt II	0.00	4.70	0.00	2.87	-	0.00	1.51	

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Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

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**Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions–
*Spodoptera litura***

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.02	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

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Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
Nano Bt	4.10	1.86	0.00	3.33	-	0.67	1.99	AETL
Suraksha Bt	5.20	2.92	0.00	2.17	-	1.11	2.28	AETL
Subiksha Bt	4.80	2.87	0.07	2.83	-	0.22	2.16	AETL
TBG 101/24 BG II	3.10	0.92	0.00	2.83	-	0.00	1.37	AETL
CCH 25-1 Bt II	3.80	1.92	0.00	3.00	-	1.78	2.10	AETL
PKV 081 Bt (ZC Bt-1)	2.50	1.87	0.13	2.67	-	0.44	1.52	AETL
NH 1901 Bt (ZC Bt-2)	2.80	1.04	0.00	2.17	-	0.44	1.29	AETL
CCH 25-3 Bt II	4.40	2.71	0.00	2.50	-	0.44	2.01	AETL
CCH 25-4 Bt II	3.40	3.83	0.00	2.33	-	0.44	2.00	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations

Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions -Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Suraksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
Subiksha Bt	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
TBG 101/24 BG II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	0.00	0.00	0.00	-	0.00	0.00	BETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions -Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive Sampling)							Remark
	JU#	AN	TA	RA	KH	BP	Mean	
Nano Bt	10.13	3.75	0.00	23.33	-	10.00	9.44	BETL
Suraksha Bt	11.92	4.25	0.00	20.00	-	6.67	8.57	BETL
Subiksha Bt	11.42	4.42	10.00	22.22	-	3.33	10.28	AETL
TBG 101/24 BG II	8.27	2.96	0.00	17.78	-	0.00	5.80	BETL
CCH 25-1 Bt II	9.59	3.42	3.33	25.56	-	14.44	11.27	AETL
PKV 081 Bt (ZC Bt-1)	7.12	3.46	6.67	23.33	-	6.67	9.45	BETL
NH 1901 Bt (ZC Bt-2)	7.67	2.96	0.00	20.00	-	14.44	9.01	BETL
CCH 25-3 Bt II	10.62	3.79	6.67	23.33	-	7.78	10.44	AETL
CCH 25-4 Bt II	8.71	5.08	6.67	21.11	-	14.44	11.20	AETL

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna, # based on 2 observations

Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	8.42	40.00	5.75	20.50	-	66.33	28.20	
Suraksha Bt	10.32	48.33	8.33	32.70	-	65.05	32.95	
Subiksha Bt	9.88	55.00	8.93	30.51	-	50.30	30.92	
TBG 101/24 BG II	7.06	31.67	8.18	30.10	-	27.55	20.91	
CCH 25-1 Bt II	8.05	43.33	7.07	27.66	-	54.39	28.10	
PKV 081 Bt (ZC Bt-1)	5.96	35.00	6.00	28.00	-	65.59	28.11	
NH 1901 Bt (ZC Bt-2)	6.62	21.67	8.70	29.54	-	39.75	21.26	
CCH 25-3 Bt II	9.08	51.67	12.00	24.04	-	49.69	29.30	
CCH 25-4 Bt II	7.50	55.00	9.62	33.52	-	80.06	37.14	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna

Table: Initial Variety (Compact) Trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	JU	AN	TA	RA	KH	BP	Mean	
Nano Bt	11.83	8.00	4.60	7.63	-	48.43	16.10	
Suraksha Bt	13.51	9.67	5.47	10.20	-	40.43	15.85	
Subiksha Bt	12.96	11.00	5.80	10.26	-	30.42	14.09	
TBG 101/24 BG II	9.48	6.33	5.00	10.47	-	38.20	13.90	
CCH 25-1 Bt II	11.13	8.67	3.79	8.80	-	3.00	7.08	
PKV 081 Bt (ZC Bt-1)	8.27	7.00	4.50	9.27	-	31.54	12.12	
NH 1901 Bt (ZC Bt-2)	8.71	4.33	7.39	10.48	-	17.92	9.77	
CCH 25-3 Bt II	12.16	10.33	6.60	5.84	-	33.44	13.67	
CCH 25-4 Bt II	9.92	11.00	6.73	8.87	-	45.46	16.40	

JU-Junagadh, AN-Anand, TA-Talod, RA-Rahuri, KH-Khandwa, BP-Bhawanipatna



Reaction to Diseases

Table 9(c) Initial Evaluation Trial Hirsutum Varieties Irrigated (IET Hir –Compact Variety IRR) under Unprotected condition

Code -I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																					
			Rahuri												Junagarh									
			CoLS		GM		TSV		ALB		BLB		RR		ALS		BLB		GM		CoLS		Internal Boll rot	
			PD I	D R	PD I	D R	PDI	DR	PDI	DR	PDI	DR	PD I	D R	PDI	D R	PDI	DR	PDI	DR	PDI	DR	PDI	DR
9	5215 1	Nano Bt	0.0	DF	0.0	DF	33.5	M R	25.7	M R	24.7	R	0.0	DF	17.5	R	13.5	R	14.0	R	58.5	MS	20.0	R
1	5215 2	Suraksha Bt	0.0	DF	0.0	DF	38.6	M R	24.9	R	29.3	M R	0.0	DF	16.0	R	54.0	MS	18.5	R	45.5	M R	26.7	M R
4	5215 3	Subiksha Bt	0.0	DF	0.0	DF	35.7	M R	27.1	M R	10.0	R	0.0	DF	15.0	R	22.5	R	18.0	R	13.0	R	20.0	R
7	5215 4	TBG 101/24 BG II	0.0	DF	0.0	DF	26.0	M R	23.4	R	24.2	R	0.0	DF	19.5	R	55.0	MS	11.0	R	11.0	R	26.7	M R
2	5215 5	CCH 25-1 Bt II	0.0	DF	0.0	DF	24.1	R	36.5	M R	28.7	M R	0.0	DF	24.0	R	6.0	R	15.0	R	10.0	R	33.3	M R
5	5215 6	PKV 081 Bt (ZC Bt-1)	0.0	DF	0.0	DF	11.8	R	37.6	M R	34.8	M R	0.0	DF	22.0	R	17.0	R	28.5	M R	14.5	R	13.3	R
8	5215 7	NH 1901 Bt (ZC Bt-2)	0.0	DF	0.0	DF	28.0	M R	15.2	R	12.0	R	0.0	DF	17.5	R	12.5	R	15.0	R	16.0	R	26.7	M R
6	5215 8	CCH 25-3 Bt II	0.0	DF	0.0	DF	11.6	R	24.4	R	16.5	R	0.0	DF	19.0	R	28.5	M R	17.5	R	10.5	R	26.7	M R
3	5215 9	CCH 25-4 Bt II	0.0	DF	0.0	DF	30.1	M R	26.3	M R	6.3	R	0.0	DF	22.2	R	42.0	M R	15.5	R	55.5	MS	26.7	M R



Initial Evaluation Trial of Intra-Hirsutum Bt Hybrids - Rainfed

Constitution of Trial

The trial was constituted with 18 Bt cotton hybrids containing deregulated event sponsored by various organization along with two different check hybrids as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	10	53001	Core 105 BG II	Coregenes Seed Research (I) Pvt Ltd
2	20	53002	KCH9267 BGII	Kaveri Seed Company Ltd.
3	1	53003	Neo 1651 BGII	Kurnool Seeds Pvt Ltd, Hyderabad
4	13	53004	DC5108 BGII	Rallis India Limited
5	7	53005	NHH 2214 BG II	Cotton Research Station, Nanded
6	19	53006	US 704 BG II (ZC 2)	
7	6	53007	AKHH 2024-12 BG II	Dr. PDKV, Akola & MSSC Ltd, Akola
8	5	53008	AKHH-2022-1 BG II	Dr. PDKV, Akola & MSSC Ltd, Akola
9	8	53009	SBCH-4145	Sai Bhavya Seeds Pvt Ltd
10	9	53010	KCH9269 BGII	Kaveri Seed Company Ltd.
11	12	53011	ARCH 777 BG II (ZC 1)	
12	18	53012	SP 7713 BGII	Crystal Crop Protection Limited
13	3	53013	PMCH-114 Bt2	Palamoor Seeds Pvt Ltd
14	14	53014	KCH9268 BGII	Kaveri Seed Company Ltd.
15	15	53015	NHH 250 BG II	VNMKV, Nanded
16	11	53016	SP 7714 BGII	Crystal Crop Protection Limited
17	4	53017	SBCH-2142	Sai Bhavya Seeds Pvt Ltd
18	16	53018	AKHH-2024-11 BG II	Dr. PDKV, Akola & MSSC Ltd, Akola
19	17	53019	GBBHH 5/2022 BG II	NAU, Bharuch
20	2	53020	AKHH-2022-2 BGII	Dr. PDKV, Akola & MSSC Ltd, Akola

The trial was conducted in eight locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; ICAR-CICR, Nagpur; ARS, Banswara; Nanded; Aurangabad (Kaveri); and Parbhani (Kurnool).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of H X H hybrids**

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	146.8	182.3	139.1	172.9	171.8	134.7	163.3	151.3	157.8
2	KCH9267 BGII	134.7	146.5	133.7	152.7	151.9	143.7	165.0	141.0	146.2
3	Neo 1651 BGII	122.3	151.1	126.7	148.7	150.2	136.3	155.0	127.0	139.7
4	DC5108 BGII	150.0	174.1	150.3	176.0	172.3	159.7	191.7	155.9	166.3
5	NHH 2214 BG II	123.2	152.7	118.8	136.7	134.3	136.3	143.3	130.1	134.4
6	US 704 BG II (ZC 2)	134.2	150.1	117.7	137.8	138.8	115.0	153.3	124.3	133.9
7	AKHH 2024-12 BG II	114.5	145.3	117.7	125.0	136.7	126.7	140.0	121.3	128.4
8	AKHH-2022-1 BG II	109.8	136.4	119.8	132.6	134.3	128.7	135.0	127.5	128.0
9	SBCH-4145	109.2	141.7	122.8	146.1	153.5	142.3	138.3	124.7	134.8
10	KCH9269 BGII	105.5	134.0	123.3	151.5	165.9	136.0	153.3	134.3	138.0
11	ARCH 777 BG II (ZC 1)	122.8	147.4	132.3	150.2	151.7	128.7	153.3	128.0	139.3
12	SP 7713 BGII	140.7	131.3	126.3	152.0	152.3	131.3	143.3	125.2	137.8
13	PMCH-114 Bt2	120.7	130.6	133.7	148.4	150.7	139.7	156.7	139.3	140.0
14	KCH9268 BGII	139.2	153.1	139.2	160.6	164.3	131.0	153.3	144.7	148.2
15	NHH 250 BG II	114.5	148.1	133.8	155.3	163.3	126.0	150.0	129.6	140.1
16	SP 7714 BGII	121.0	156.1	129.3	151.0	147.3	114.3	153.3	130.7	137.9
17	SBCH-2142	128.2	165.1	132.3	153.2	150.3	135.3	166.7	131.8	145.4
18	AKHH-2024-11 BG II	135.0	138.1	132.5	145.1	144.8	132.0	153.3	134.8	139.5
19	GBBHH 5/2022 BG II	127.8	150.4	126.9	158.0	154.7	144.3	156.7	126.9	143.2
20	AKHH-2022-2 BGII	96.2	135.9	102.9	131.1	129.0	107.7	141.7	124.6	121.1
	CD @ 5%	15.0	18.0	19.9	13.6	18.3	13.3	14.6	14.4	
	CV%	7.3	7.3	9.4	5.5	7.3	6.1	5.8	6.6	



Number of monopodia in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	0.9	0.7	2.1	1.1	0.7	2.3	2.0	1.9	1.5
2	KCH9267 BGII	1.3	0.3	1.7	0.6	0.4	2.0	2.0	1.9	1.3
3	Neo 1651 BGII	0.9	0.9	2.1	1.1	0.7	1.7	2.0	2.3	1.5
4	DC5108 BGII	0.9	0.5	2.1	0.7	0.8	2.3	2.0	1.5	1.4
5	NHH 2214 BG II	1.1	0.4	2.1	1.1	1.1	2.0	2.0	1.5	1.4
6	US 704 BG II (ZC 2)	0.8	0.3	1.5	0.8	1.2	2.3	1.0	1.3	1.2
7	AKHH 2024-12 BG II	1.2	0.5	1.5	1.7	0.6	2.3	1.0	1.3	1.3
8	AKHH-2022-1 BG II	0.8	0.4	1.6	0.8	0.7	2.0	1.0	1.5	1.1
9	SBCH-4145	0.9	0.3	1.6	0.9	0.5	2.3	1.0	1.9	1.2
10	KCH9269 BGII	0.9	0.5	1.6	1.2	0.8	2.3	1.0	1.2	1.2
11	ARCH 777 BG II (ZC 1)	0.8	0.3	1.4	1.1	0.5	1.3	2.0	2.3	1.2
12	SP 7713 BGII	1.0	0.4	1.6	0.5	0.3	2.7	1.0	2.0	1.2
13	PMCH-114 Bt2	0.9	0.5	1.4	1.0	0.8	2.3	1.0	1.3	1.2
14	KCH9268 BGII	1.2	0.1	2.0	1.3	0.4	2.7	2.0	1.7	1.4
15	NHH 250 BG II	0.9	1.9	2.3	3.0	1.7	3.0	3.3	2.5	2.3
16	SP 7714 BGII	0.8	0.9	2.2	1.3	0.8	2.3	1.3	1.5	1.4
17	SBCH-2142	0.8	0.7	2.0	1.0	0.5	2.3	1.0	1.3	1.2
18	AKHH-2024-11 BG II	0.8	0.3	2.3	0.8	1.0	3.0	1.0	1.9	1.4
19	GBBHH 5/2022 BG II	0.8	1.1	1.7	1.7	1.0	2.7	2.0	2.5	1.7
20	AKHH-2022-2 BGII	0.8	1.0	1.6	1.3	0.5	2.3	2.0	1.8	1.4
	CD @ 5%	0.3	0.3	0.2	0.8	0.7	0.8	0.3	1.0	
	CV%	19.8	31.5	5.5	43.0	18.0	20.7	11.7	34.1	



Number of sympodia in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	16.8	26.6	25.7	28.3	25.9	28.0	20.3	16.3	23.5
2	KCH9267 BGII	28.2	25.4	26.1	31.7	25.7	27.3	21.3	16.0	25.2
3	Neo 1651 BGII	23.5	23.7	25.5	28.6	27.6	26.0	20.3	14.1	23.7
4	DC5108 BGII	17.5	29.9	25.7	32.1	27.1	25.3	21.7	15.1	24.3
5	NHH 2214 BG II	23.9	23.3	23.1	27.5	24.6	26.7	19.3	15.6	23.0
6	US 704 BG II (ZC 2)	20.1	25.7	21.0	27.7	26.5	21.3	19.7	13.9	22.0
7	AKHH 2024-12 BG II	21.0	22.7	21.0	25.9	26.2	25.3	18.0	13.8	21.7
8	AKHH-2022-1 BG II	21.5	20.5	21.5	26.5	24.7	25.0	17.7	12.9	21.3
9	SBCH-4145	19.6	19.7	22.7	28.3	25.5	26.7	17.7	12.7	21.6
10	KCH9269 BGII	25.7	24.2	22.7	29.8	28.6	26.3	19.0	12.1	23.6
11	ARCH 777 BG II (ZC 1)	22.7	22.8	23.6	27.5	25.3	27.3	18.0	13.5	22.6
12	SP 7713 BGII	17.5	21.7	25.5	29.3	25.3	26.3	17.7	13.1	22.1
13	PMCH-114 Bt2	22.0	24.3	25.9	27.1	23.9	24.0	19.0	14.6	22.6
14	KCH9268 BGII	23.4	23.9	25.7	32.7	27.9	25.0	19.7	14.7	24.1
15	NHH 250 BG II	27.6	25.0	24.0	30.1	29.7	28.7	19.7	15.1	25.0
16	SP 7714 BGII	19.9	24.5	21.1	27.3	26.0	22.3	17.3	12.9	21.4
17	SBCH-2142	24.0	25.5	23.8	29.3	25.3	30.0	18.3	14.3	23.8
18	AKHH-2024-11 BG II	14.4	20.3	23.4	28.6	26.1	24.0	18.0	13.7	21.1
19	GBBHH 5/2022 BG II	24.6	23.9	23.1	29.3	28.1	33.0	20.0	13.1	24.4
20	AKHH-2022-2 BGII	19.4	22.8	22.7	29.3	25.0	25.3	18.7	12.9	22.0
	CD @ 5%	5.0	4.8	3.5	3.0	3.6	5.4	3.2	1.7	
	CV%	13.8	12.2	9.0	6.2	8.5	12.5	10.2	7.3	



Boll weight (g) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	5.1	5.3	5.5	5.2	5.1	4.0	5.0	5.6	5.1
2	KCH9267 BGII	4.4	4.7	5.2	4.5	4.9	3.8	5.6	5.5	4.8
3	Neo 1651 BGII	5.0	5.7	5.8	5.2	5.1	4.6	5.7	6.0	5.4
4	DC5108 BGII	5.4	6.1	5.9	5.4	5.4	5.2	5.9	6.5	5.7
5	NHH 2214 BG II	5.2	5.3	5.6	5.0	4.7	4.4	5.4	5.4	5.1
6	US 704 BG II (ZC 2)	5.4	5.9	5.2	5.1	4.9	4.7	5.1	5.4	5.2
7	AKHH 2024-12 BG II	5.2	5.5	5.8	5.1	5.2	5.2	5.8	5.9	5.5
8	AKHH-2022-1 BG II	5.0	5.2	5.2	5.2	5.1	5.0	5.5	6.0	5.3
9	SBCH-4145	5.6	5.9	6.0	5.1	4.9	4.5	5.7	6.5	5.5
10	KCH9269 BGII	4.9	5.2	5.6	5.1	5.5	4.9	5.7	5.7	5.3
11	ARCH 777 BG II (ZC 1)	4.8	5.3	4.8	5.0	5.1	4.4	5.0	5.3	5.0
12	SP 7713 BGII	5.2	5.6	5.5	5.3	5.3	5.1	6.1	6.5	5.6
13	PMCH-114 Bt2	4.8	5.3	5.3	5.4	5.1	4.3	5.5	5.8	5.2
14	KCH9268 BGII	5.4	5.5	5.7	5.1	5.2	4.5	6.1	6.4	5.5
15	NHH 250 BG II	4.4	4.4	4.6	4.3	4.2	3.9	4.2	5.0	4.4
16	SP 7714 BGII	5.2	5.5	4.6	5.5	5.5	4.5	5.7	6.4	5.4
17	SBCH-2142	5.1	5.9	5.4	4.9	4.9	4.3	5.4	6.0	5.2
18	AKHH-2024-11 BG II	4.8	5.1	5.2	4.8	5.6	4.2	5.3	6.4	5.2
19	GBBHH 5/2022 BG II	5.0	4.6	4.9	3.9	4.6	4.4	4.6	5.8	4.7
20	AKHH-2022-2 BGII	5.5	5.5	6.0	5.6	5.0	5.1	5.9	6.7	5.7
	CD @ 5%	0.4	0.6	0.1	0.5	0.5	0.2	0.3	0.7	
	CV%	5.27	6.4	1.3	5.8	6.4	2.3	3.5	6.7	



Number of bolls / plant in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	20.5	33.2	28.9	31.0	34.8	35.0	55.7	25.3	33.1
2	KCH9267 BGII	33.9	28.7	27.7	34.0	32.8	37.0	64.7	33.7	36.6
3	Neo 1651 BGII	27.6	26.2	32.6	34.9	35.9	28.7	46.0	30.4	32.8
4	DC5108 BGII	20.4	25.7	27.6	26.5	37.6	31.0	52.3	25.6	30.8
5	NHH 2214 BG II	27.9	31.5	26.2	32.5	33.3	35.3	52.3	28.8	33.5
6	US 704 BG II (ZC 2)	24.7	22.0	20.4	31.0	35.3	31.3	47.3	26.3	29.8
7	AKHH 2024-12 BG II	25.3	28.9	20.4	30.1	31.0	29.3	49.3	24.9	29.9
8	AKHH-2022-1 BG II	27.0	27.9	21.5	30.5	34.9	30.0	46.7	27.0	30.7
9	SBCH-4145	23.9	20.6	22.7	32.0	31.4	28.0	47.3	28.9	29.4
10	KCH9269 BGII	32.1	23.7	22.8	26.3	34.5	23.3	52.0	24.2	29.9
11	ARCH 777 BG II (ZC 1)	27.2	33.2	22.8	34.9	35.1	34.7	47.3	28.5	33.0
12	SP 7713 BGII	21.1	18.7	24.0	28.1	33.7	28.0	43.3	26.0	27.9
13	PMCH-114 Bt2	25.0	28.7	22.1	35.1	33.5	31.3	45.7	24.5	30.7
14	KCH9268 BGII	28.5	27.6	25.5	32.4	32.9	26.0	50.0	23.0	30.7
15	NHH 250 BG II	34.0	22.6	28.6	33.7	38.9	32.7	61.3	30.1	35.2
16	SP 7714 BGII	24.4	33.5	25.4	37.9	35.1	28.0	51.0	26.7	32.8
17	SBCH-2142	28.1	28.6	28.0	31.0	30.4	34.7	46.3	24.6	31.5
18	AKHH-2024-11 BG II	17.5	25.2	28.8	35.9	35.7	37.3	53.7	26.6	32.6
19	GBBHH 5/2022 BG II	29.9	32.3	24.5	30.8	46.4	35.0	51.7	26.5	34.6
20	AKHH-2022-2 BGII	23.3	27.1	23.8	32.5	34.1	28.0	44.0	26.1	29.9
	CD @ 5%	5.1	5.2	0.8	NS	6.4	6.7	8.3	3.5	
	CV%	11.8	11.6	1.8	14.4	11.1	12.7	9.9	7.9	



Number of bolls / sq.m. in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	37.9	61.4	57.4	115.6	182.3	77.3	46.9	82.7
2	KCH9267 BGII	62.8	53.0	62.9	100.8	187.3	89.8	62.5	88.4
3	Neo 1651 BGII	51.1	48.5	64.6	97.2	158.0	63.9	56.3	77.1
4	DC5108 BGII	37.9	47.6	49.0	104.4	179.7	72.7	47.4	77.0
5	NHH 2214 BG II	51.7	58.2	60.2	87.2	183.7	72.7	53.3	81.0
6	US 704 BG II (ZC 2)	45.6	40.8	57.4	106.4	144.3	65.7	48.8	72.7
7	AKHH 2024-12 BG II	46.9	53.5	55.7	84.9	151.7	68.5	46.2	72.5
8	AKHH-2022-1 BG II	49.9	51.6	56.5	103.6	146.7	64.8	50.0	74.7
9	SBCH-4145	44.3	38.1	59.2	86.4	175.0	65.7	53.5	74.6
10	KCH9269 BGII	59.4	43.8	48.6	88.6	129.0	72.2	44.8	69.5
11	ARCH 777 BG II (ZC 1)	50.3	61.5	64.5	91.8	136.3	65.7	52.8	74.7
12	SP 7713 BGII	39.1	34.6	51.9	99.4	146.7	60.2	48.1	68.6
13	PMCH-114 Bt2	46.4	53.2	64.9	89.2	145.0	63.4	45.3	72.5
14	KCH9268 BGII	52.8	51.1	59.9	97.3	151.0	69.4	42.6	74.9
15	NHH 250 BG II	63.0	41.8	62.4	110.7	171.7	85.2	55.7	84.4
16	SP 7714 BGII	45.1	62.0	70.2	87.8	145.0	70.8	49.4	75.8
17	SBCH-2142	52.0	52.9	57.4	95.2	162.0	64.4	45.6	75.6
18	AKHH-2024-11 BG II	32.4	46.6	66.5	83.3	178.7	74.5	49.3	75.9
19	GBBHH 5/2022 BG II	55.4	59.8	57.0	120.6	157.3	71.8	49.1	81.6
20	AKHH-2022-2 BGII	43.1	50.2	60.1	92.0	140.0	61.1	48.3	70.7
	CD @ 5%	9.4	9.6	NS	13.5	21.2	11.5	6.5	
	CV%	11.8	11.6	14.4	8.4	8.1	9.9	7.9	



Lint Index (g) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	6.3	6.3	5.8	5.8	5.8	5.4	5.8	5.4	5.8
2	KCH9267 BGII	5.0	4.9	4.6	4.3	4.8	5.4	4.9	4.8	4.8
3	Neo 1651 BGII	5.4	5.6	5.5	5.1	4.9	5.6	4.4	5.4	5.2
4	DC5108 BGII	5.4	5.8	5.3	5.4	5.3	5.8	5.4	5.0	5.4
5	NHH 2214 BG II	5.4	5.3	4.9	5.1	4.8	5.4	5.7	4.8	5.2
6	US 704 BG II (ZC 2)	6.3	6.5	5.8	5.9	5.6	4.6	5.4	5.4	5.7
7	AKHH 2024-12 BG II	5.9	5.7	5.1	5.5	4.9	5.1	4.8	4.7	5.2
8	AKHH-2022-1 BG II	5.8	5.8	5.2	5.4	4.9	5.2	5.0	4.9	5.3
9	SBCH-4145	5.9	6.2	6.4	5.9	4.3	5.8	6.2	5.8	5.8
10	KCH9269 BGII	4.5	5.4	5.0	4.7	5.2	5.2	5.2	5.2	5.1
11	ARCH 777 BG II (ZC 1)	5.7	6.2	5.3	5.6	5.0	5.4	5.1	5.1	5.4
12	SP 7713 BGII	5.6	6.7	6.4	5.6	5.5	5.4	5.5	5.3	5.8
13	PMCH-114 Bt2	5.4	5.8	5.1	5.3	5.9	5.1	5.4	4.4	5.3
14	KCH9268 BGII	5.7	6.0	4.9	6.1	5.2	4.8	5.3	4.9	5.4
15	NHH 250 BG II	5.1	5.0	4.7	4.8	5.0	4.9	4.7	4.8	4.9
16	SP 7714 BGII	5.2	5.6	5.7	5.4	4.8	4.7	4.6	4.7	5.1
17	SBCH-2142	6.0	6.5	5.9	6.1	5.4	5.5	5.6	5.8	5.9
18	AKHH-2024-11 BG II	6.0	6.7	6.4	5.5	5.5	6.0	5.7	5.9	6.0
19	GBBHH 5/2022 BG II	5.2	5.6	5.3	4.8	4.3	5.4	4.7	5.0	5.0
20	AKHH-2022-2 BGII	5.9	6.3	5.2	6.0	5.7	4.1	6.0	5.8	5.6
	CD @ 5%	0.5	0.6	0.1		0.4	0.4	0.6	0.5	
	CV%	5.7	6.4	1.2		4.5	4.0	6.4	5.6	



Seed Index (g) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	11.5	11.5	10.4	11.2	9.5	9.3	9.7	9.0	10.3
2	KCH9267 BGII	10.5	10.0	10.1	10.0	10.5	9.0	8.7	8.3	9.6
3	Neo 1651 BGII	11.4	12.3	12.1	11.5	10.9	11.1	8.7	9.0	10.9
4	DC5108 BGII	11.2	12.7	11.4	11.5	11.3	11.0	9.7	9.3	11.0
5	NHH 2214 BG II	10.9	11.8	10.6	11.3	10.6	10.1	10.7	9.7	10.7
6	US 704 BG II (ZC 2)	12.0	11.7	10.8	11.4	10.0	11.0	9.3	9.0	10.7
7	AKHH 2024-12 BG II	12.2	13.3	11.8	12.1	10.3	10.2	9.7	9.3	11.1
8	AKHH-2022-1 BG II	11.7	12.2	11.0	11.6	9.4	10.0	9.3	9.3	10.6
9	SBCH-4145	12.1	12.7	12.2	12.1	9.9	10.0	10.7	10.0	11.2
10	KCH9269 BGII	11.1	12.0	11.1	12.0	10.4	10.8	9.3	9.7	10.8
11	ARCH 777 BG II (ZC 1)	11.1	11.7	10.2	11.8	9.8	9.0	9.3	9.3	10.3
12	SP 7713 BGII	11.5	13.0	12.2	12.6	9.6	9.8	10.0	9.3	11.0
13	PMCH-114 Bt2	11.1	12.7	11.2	11.8	10.6	10.0	10.3	8.7	10.8
14	KCH9268 BGII	11.9	12.5	11.0	12.2	10.8	9.2	9.3	9.0	10.7
15	NHH 250 BG II	10.0	11.3	10.0	9.4	10.0	9.0	8.3	8.7	9.6
16	SP 7714 BGII	11.3	12.2	11.8	12.5	10.7	9.2	9.0	9.3	10.8
17	SBCH-2142	11.8	12.2	11.2	11.8	10.0	10.1	9.7	10.0	10.9
18	AKHH-2024-11 BG II	11.0	11.3	10.6	10.4	9.6	10.0	9.0	9.3	10.2
19	GBBHH 5/2022 BG II	11.8	11.0	11.1	9.4	10.6	10.1	8.7	9.0	10.2
20	AKHH-2022-2 BGII	11.0	11.8	10.4	12.2	10.5	10.2	10.3	10.0	10.8
	CD @ 5%	0.8	0.7	0.2		0.7	0.4	0.9	0.8	
	CV%	4.1	3.6	1.3		4.1	2.5	5.6	4.9	



Ginning outturn (%) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	35.6	35.5	35.8	34.0	37.6	36.7	37.6	37.3	36.3
2	KCH9267 BGII	32.4	33.1	35.2	30.0	35.1	37.3	36.0	36.7	34.5
3	Neo 1651 BGII	32.0	31.3	31.2	30.7	33.9	33.3	33.5	37.5	32.9
4	DC5108 BGII	32.4	31.5	31.9	32.0	32.0	34.3	35.6	34.7	33.1
5	NHH 2214 BG II	33.1	30.9	31.9	31.0	32.6	34.7	34.8	33.3	32.8
6	US 704 BG II (ZC 2)	34.3	35.6	35.0	34.0	37.0	29.3	36.7	37.5	34.9
7	AKHH 2024-12 BG II	32.6	30.1	34.8	31.3	31.4	33.3	33.3	33.6	32.6
8	AKHH-2022-1 BG II	33.3	32.3	32.2	31.7	33.4	34.3	34.8	34.6	33.3
9	SBCH-4145	32.9	32.9	34.3	32.7	32.5	36.7	36.6	36.6	34.4
10	KCH9269 BGII	28.8	30.9	31.2	28.3	34.3	32.3	35.9	35.2	32.1
11	ARCH 777 BG II (ZC 1)	33.9	34.6	34.4	32.3	34.1	37.3	35.3	35.3	34.7
12	SP 7713 BGII	33.2	33.9	35.2	30.7	35.4	35.7	35.7	36.3	34.5
13	PMCH-114 Bt2	32.5	31.5	31.3	31.0	34.5	33.7	34.4	33.7	32.8
14	KCH9268 BGII	32.2	32.0	30.9	33.3	34.1	34.3	36.3	35.1	33.5
15	NHH 250 BG II	33.9	30.7	31.9	34.0	32.9	35.0	36.1	35.6	33.8
16	SP 7714 BGII	31.7	31.3	32.6	30.3	32.3	34.0	33.9	33.4	32.4
17	SBCH-2142	33.6	34.9	34.4	34.0	34.9	35.3	36.7	36.7	35.1
18	AKHH-2024-11 BG II	35.3	37.0	37.5	34.7	35.5	37.3	38.6	38.6	36.8
19	GBBHH 5/2022 BG II	30.8	33.8	32.5	33.7	34.0	35.0	35.0	35.8	33.8
20	AKHH-2022-2 BGII	34.8	34.6	35.2	33.0	34.9	28.7	36.8	36.6	34.3
	CD @ 5%	1.10	2.2	0.6		2.1	1.2	1.0	1.0	
	CV%	2.0	4.0	1.0		3.8	2.1	1.6	1.6	



Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	28.2	28.6	28.2	30.0	28.2	27.7	27.3	28.6	28.4
2	KCH9267 BGII	28.4	28.2	28.6	29.4	27.3	24.2	25.8	26.5	27.3
3	Neo 1651 BGII	31.4	30.4	31.2	30.5	29.5	25.9	29.2	28.3	29.6
4	DC5108 BGII	28.4	30.1	29.4	29.4	27.3	28.7	27.1	27.0	28.4
5	NHH 2214 BG II	27.4	28.8	27.9	28.4	28.4	26.9	27.0	28.4	27.9
6	US 704 BG II (ZC 2)	29.3	29.7	29.1	29.3	29.1	26.7	28.4	28.3	28.7
7	AKHH 2024-12 BG II	33.3	32.4	32.3	30.2	33.0	30.6	30.3	31.8	31.7
8	AKHH-2022-1 BG II	30.4	29.8	30.4	30.5	29.6	29.9	28.6	27.9	29.6
9	SBCH-4145	31.1	30.4	30.3	30.6	28.3	28.7	28.6	29.2	29.7
10	KCH9269 BGII	31.8	31.1	31.0	31.3	30.6	30.1	28.5	30.4	30.6
11	ARCH 777 BG II (ZC 1)	29.2	28.7	28.0	30.7	29.0	27.5	27.5	28.3	28.6
12	SP 7713 BGII	30.6	29.9	30.7	30.1	29.6	28.3	28.9	30.5	29.8
13	PMCH-114 Bt2	32.5	31.1	28.9	31.7	30.7	30.0	28.3	29.3	30.3
14	KCH9268 BGII	30.0	29.3	29.8	30.7	28.7	27.5	27.7	27.6	28.9
15	NHH 250 BG II	28.6	28.0	28.1	28.2	27.9	27.6	26.2	26.9	27.7
16	SP 7714 BGII	29.5	29.9	29.5	30.6	28.8	28.1	28.0	28.2	29.1
17	SBCH-2142	29.6	30.1	29.0	30.2	28.3	27.1	27.4	28.6	28.8
18	AKHH-2024-11 BG II	27.1	25.8	26.1	27.6	28.7	26.4	25.1	25.1	26.5
19	GBBHH 5/2022 BG II	29.8	29.3	30.5	29.6	27.8	28.5	25.8	28.1	28.7
20	AKHH-2022-2 BGII	26.9	26.8	27.1	28.0	26.1	27.6	25.7	27.2	26.9



Uniformity index under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	86.0	84.6	86.0	86.0	83.0	83.0	84.0	84.0	84.6
2	KCH9267 BGII	85.0	83.9	85.0	85.0	86.0	81.0	84.0	84.0	84.2
3	Neo 1651 BGII	83.0	84.5	82.0	83.0	82.0	80.0	82.0	82.0	82.3
4	DC5108 BGII	87.0	84.4	83.0	85.0	84.0	84.0	82.0	81.0	83.8
5	NHH 2214 BG II	83.0	83.8	84.0	84.0	84.0	83.0	82.0	83.0	83.4
6	US 704 BG II (ZC 2)	85.0	82.4	83.0	84.0	84.0	81.0	82.0	82.0	82.9
7	AKHH 2024-12 BG II	87.0	85.3	82.0	88.0	86.0	83.0	84.0	85.0	85.0
8	AKHH-2022-1 BG II	84.0	84.7	84.0	86.0	86.0	82.0	84.0	86.0	84.6
9	SBCH-4145	84.0	84.3	84.0	86.0	84.0	83.0	84.0	87.0	84.5
10	KCH9269 BGII	83.0	83.3	83.0	86.0	85.0	82.0	83.0	83.0	83.5
11	ARCH 777 BG II (ZC 1)	85.0	83.7	83.0	86.0	86.0	81.0	84.0	82.0	83.8
12	SP 7713 BGII	83.0	83.6	86.0	86.0	84.0	83.0	84.0	84.0	84.2
13	PMCH-114 Bt2	84.0	84.7	84.0	86.0	84.0	84.0	83.0	83.0	84.1
14	KCH9268 BGII	84.0	84.4	85.0	85.0	85.0	80.0	82.0	85.0	83.8
15	NHH 250 BG II	83.0	84.1	85.0	84.0	84.0	82.0	83.0	82.0	83.4
16	SP 7714 BGII	83.0	83.6	82.0	86.0	83.0	82.0	82.0	83.0	83.1
17	SBCH-2142	84.0	84.7	84.0	85.0	85.0	82.0	83.0	84.0	84.0
18	AKHH-2024-11 BG II	81.0	83.2	82.0	84.0	83.0	81.0	82.0	80.0	82.0
19	GBBHH 5/2022 BG II	83.0	83.2	83.0	83.0	84.0	83.0	83.0	84.0	83.3
20	AKHH-2022-2 BGII	82.0	84.1	83.0	85.0	83.0	81.0	84.0	85.0	83.4



Micronaire under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	5.4	5.0	4.7	5.5	4.8	5.2	4.5	4.8	5.0
2	KCH9267 BGII	5.1	5.0	4.8	4.4	5.0	4.4	4.3	4.3	4.7
3	Neo 1651 BGII	5.1	4.8	4.6	5.0	5.1	4.9	3.7	4.1	4.7
4	DC5108 BGII	5.2	4.9	4.5	4.9	5.0	4.9	3.8	4.3	4.7
5	NHH 2214 BG II	5.4	4.8	4.6	4.9	4.9	4.7	4.4	4.0	4.7
6	US 704 BG II (ZC 2)	5.4	4.0	3.9	4.0	4.2	5.0	3.2	3.3	4.1
7	AKHH 2024-12 BG II	4.8	4.4	3.7	4.0	4.6	3.9	3.7	4.0	4.1
8	AKHH-2022-1 BG II	4.9	5.1	4.4	5.4	5.1	4.7	3.8	4.3	4.7
9	SBCH-4145	4.9	5.1	4.7	5.0	5.1	4.6	4.3	4.3	4.8
10	KCH9269 BGII	5.0	5.4	4.9	5.0	5.1	4.7	4.6	4.5	4.9
11	ARCH 777 BG II (ZC 1)	4.8	4.5	4.3	4.8	4.7	4.2	3.6	3.9	4.4
12	SP 7713 BGII	5.1	5.3	4.9	5.1	5.1	4.9	4.3	4.4	4.9
13	PMCH-114 Bt2	4.6	4.8	4.5	4.6	4.9	4.7	3.9	4.0	4.5
14	KCH9268 BGII	5.2	4.8	4.7	5.2	5.2	4.2	4.5	4.3	4.8
15	NHH 250 BG II	4.8	4.9	4.3	5.1	4.9	4.5	4.0	4.3	4.6
16	SP 7714 BGII	4.8	4.9	4.0	5.4	4.9	4.4	3.9	4.6	4.6
17	SBCH-2142	5.1	5.5	4.9	5.2	5.3	4.8	4.8	5.0	5.1
18	AKHH-2024-11 BG II	5.3	5.6	5.2	5.0	5.3	4.7	4.2	4.6	5.0
19	GBBHH 5/2022 BG II	4.5	4.9	4.3	4.9	5.3	4.5	4.3	4.0	4.6
20	AKHH-2022-2 BGII	4.8	4.8	4.0	4.1	4.8	3.9	4.0	4.4	4.4



Tenacity under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	30.8	29.8	26.8	29.3	30.0	28.7	27.9	27.8	28.9
2	KCH9267 BGII	30.4	30.5	29.9	30.0	27.2	23.8	26.9	27.0	28.2
3	Neo 1651 BGII	31.2	30.6	29.2	29.0	31.9	27.3	27.7	30.0	29.6
4	DC5108 BGII	29.7	30.1	27.5	28.6	28.4	28.3	25.2	28.0	28.2
5	NHH 2214 BG II	28.1	30.6	28.2	27.8	30.5	28.9	25.0	28.5	28.5
6	US 704 BG II (ZC 2)	30.6	29.2	28.6	25.4	27.8	28.7	26.0	26.9	27.9
7	AKHH 2024-12 BG II	32.4	33.1	31.2	31.5	32.2	31.4	30.4	30.2	31.6
8	AKHH-2022-1 BG II	30.7	31.2	30.9	30.3	32.2	30.7	28.3	27.8	30.3
9	SBCH-4145	30.2	31.6	28.3	29.0	29.9	27.6	29.2	28.9	29.3
10	KCH9269 BGII	31.4	29.7	29.2	31.6	30.0	29.6	28.8	30.8	30.1
11	ARCH 777 BG II (ZC 1)	29.8	30.9	28.7	31.1	30.8	28.2	29.0	29.4	29.7
12	SP 7713 BGII	30.5	30.6	28.4	31.2	30.8	29.8	28.1	29.9	29.9
13	PMCH-114 Bt2	31.1	31.8	28.0	29.0	31.0	29.7	29.4	29.5	29.9
14	KCH9268 BGII	31.3	31.7	30.1	28.4	29.1	26.4	27.5	27.9	29.1
15	NHH 250 BG II	30.7	29.1	28.5	27.8	30.1	29.6	27.3	27.9	28.9
16	SP 7714 BGII	29.2	29.3	28.9	27.6	27.9	28.4	27.0	28.4	28.3
17	SBCH-2142	30.4	30.8	28.0	28.0	30.4	26.4	27.0	29.7	28.8
18	AKHH-2024-11 BG II	29.1	27.3	25.9	27.2	29.6	26.0	25.0	25.8	27.0
19	GBBHH 5/2022 BG II	31.5	29.9	29.7	27.4	29.5	29.8	27.1	28.9	29.2
20	AKHH-2022-2 BGII	28.7	28.3	28.7	29.4	28.4	27.9	26.5	28.0	28.2



Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	7.23	4.94	10.52	7.68	9.37	23.56	3.39	9.53
2	KCH9267 BGII	9.05	5.89	10.62	11.88	12.79	31.74	6.66	12.66
3	Neo 1651 BGII	9.57	7.19	10.71	7.94	10.56	28.11	7.33	11.63
4	DC5108 BGII	7.58	5.83	9.49	6.99	13.61	25.44	5.82	10.68
5	NHH 2214 BG II	10.82	5.89	12.63	7.53	15.25	23.64	6.16	11.70
6	US 704 BG II (ZC 2)	9.00	3.49	3.49	9.40	9.88	18.11	4.83	8.31
7	AKHH 2024-12 BG II	8.96	6.39	11.14	5.42	13.30	28.59	7.88	11.67
8	AKHH-2022-1 BG II	9.69	4.14	6.66	6.90	13.34	18.71	6.97	9.49
9	SBCH-4145	9.56	6.57	10.22	3.76	16.50	23.01	8.53	11.16
10	KCH9269 BGII	10.51	6.54	10.13	9.23	12.88	32.41	7.99	12.81
11	ARCH 777 BG II (ZC 1)	9.37	6.38	8.83	8.84	12.71	19.82	5.53	10.21
12	SP 7713 BGII	7.73	3.79	10.07	6.01	14.48	24.17	6.69	10.42
13	PMCH-114 Bt2	7.89	4.71	9.69	8.71	9.57	20.38	4.13	9.30
14	KCH9268 BGII	9.44	5.15	10.07	9.71	10.00	31.09	5.87	11.62
15	NHH 250 BG II	11.93	1.73	4.51	10.57	6.34	16.21	3.64	7.85
16	SP 7714 BGII	8.10	4.86	16.62	9.81	10.50	23.78	7.56	11.60
17	SBCH-2142	13.27	6.89	10.55	8.32	11.70	21.59	4.82	11.02
18	AKHH-2024-11 BG II	6.99	7.22	9.69	8.11	14.76	21.58	8.08	10.92
19	GBBHH 5/2022 BG II	10.14	4.33	5.08	8.32	8.78	17.77	2.99	8.20
20	AKHH-2022-2 BGII	8.63	5.77	8.77	8.04	10.78	21.99	9.17	10.45
	CD @ 5%	2.39	1.36	3.87	2.54	1.57	4.08	0.85	
	CV%	15.6	15.30	24.69	18.73	8.03	10.48	8.29	



Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean
1	Core 105 BG II	12.01	22.42	9.32	6.16	11.51	2.38	10.34	10.59
2	KCH9267 BGII	17.04	15.99	6.99	6.40	10.82	1.57	11.05	9.98
3	Neo 1651 BGII	15.08	16.83	9.28	6.30	12.01	1.77	10.61	10.27
4	DC5108 BGII	12.59	21.66	8.48	5.40	12.88	3.01	10.09	10.59
5	NHH 2214 BG II	15.30	21.66	8.47	8.25	11.54	1.03	9.19	10.78
6	US 704 BG II (ZC 2)	14.42	16.51	7.48	5.22	7.93	2.43	8.79	8.97
7	AKHH 2024-12 BG II	14.52	21.04	7.96	6.76	9.34	2.57	7.75	9.99
8	AKHH-2022-1 BG II	14.24	20.38	9.67	4.63	8.04	1.96	8.14	9.58
9	SBCH-4145	14.09	12.62	7.31	4.16	10.55	1.16	8.87	8.39
10	KCH9269 BGII	15.85	13.26	6.74	7.70	9.52	2.28	10.09	9.35
11	ARCH 777 BG II (ZC 1)	13.78	20.53	9.98	6.36	8.45	1.22	9.47	9.97
12	SP 7713 BGII	11.24	11.25	9.16	5.69	9.38	2.07	8.32	8.16
13	PMCH-114 Bt2	13.97	20.95	10.06	6.49	9.02	1.18	9.21	10.13
14	KCH9268 BGII	18.09	22.07	6.39	7.53	11.17	3.01	11.02	11.33
15	NHH 250 BG II	15.41	13.95	7.36	6.10	9.54	2.25	11.25	9.41
16	SP 7714 BGII	14.98	26.61	10.50	6.57	10.75	2.08	10.10	11.66
17	SBCH-2142	12.63	21.80	8.10	6.47	10.85	3.16	11.40	10.63
18	AKHH-2024-11 BG II	8.41	14.08	11.08	6.75	10.72	1.89	10.25	9.03
19	GBBHH 5/2022 BG II	15.29	20.29	7.12	5.92	9.15	2.67	10.74	10.17
20	AKHH-2022-2 BGII	12.71	18.96	11.28	5.83	6.58	2.75	8.69	9.54
	CD @ 5%	3.78	4.63	1.99	1.66	1.23	1.28	1.32	
	CV%	16.3	15.10	13.91	16.03	7.45	36.46	8.15	



Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Kaveri)	Parbhani (Kurnool)	Mean	Rank	% Inc over best check
1	Core 105 BG II	19.24	27.36	20.93	19.85	13.91	20.88	25.94	13.73	20.23	14	-0.8
2	KCH9267 BGII	26.09	21.88	28.08	17.61	18.33	23.60	33.31	17.71	23.33	3	14.4
3	Neo 1651 BGII	24.65	24.02	25.62	19.99	14.31	22.56	29.88	17.93	22.37	7	9.7
4	DC5108 BGII	20.17	27.48	26.43	17.97	12.47	26.49	28.45	15.92	21.92	8	7.5
5	NHH 2214 BG II	26.11	27.55	24.02	21.11	15.85	26.79	24.67	15.35	22.68	5	11.2
6	US 704 BG II (ZC 2)	23.42	19.99	16.14	10.97	14.69	17.81	20.54	13.62	17.15	20	-15.9
7	AKHH 2024-12 BG II	23.48	27.43	27.57	19.10	12.25	22.64	31.16	15.63	22.41	6	9.9
8	AKHH-2022-1 BG II	23.93	24.52	19.43	16.33	11.60	21.37	20.67	15.10	19.12	17	-6.2
9	SBCH-4145	23.65	19.20	25.22	17.53	8.00	27.05	24.16	17.39	20.28	13	-0.6
10	KCH9269 BGII	26.36	19.80	27.73	16.87	17.01	22.40	34.69	18.08	22.87	4	12.2
11	ARCH 777 BG II (ZC 1)	23.15	26.91	21.78	18.81	15.25	21.16	21.04	15.00	20.39	12	0.0
12	SP 7713 BGII	18.98	15.04	27.07	19.23	11.77	23.86	26.24	15.01	19.65	15	-3.6
13	PMCH-114 Bt2	21.85	25.66	19.12	19.75	15.26	18.59	21.56	13.33	19.39	16	-4.9
14	KCH9268 BGII	27.53	27.21	26.96	16.46	17.30	21.17	34.10	16.89	23.45	2	15.0
15	NHH 250 BG II	27.34	15.68	23.35	11.87	16.72	15.88	18.45	14.89	18.02	19	-11.6
16	SP 7714 BGII	23.08	31.47	25.65	27.12	16.46	21.24	25.86	17.66	23.57	1	15.6
17	SBCH-2142	25.90	28.70	23.36	18.65	14.52	22.55	24.75	16.23	21.83	9	7.1
18	AKHH-2024-11 BG II	15.39	21.30	23.57	20.77	14.94	25.48	23.47	18.33	20.41	11	0.1
19	GBBHH 5/2022 BG II	25.42	24.62	22.71	12.19	14.08	17.93	20.44	13.73	18.89	18	-7.4
20	AKHH-2022-2 BGII	21.34	24.73	28.01	20.05	13.95	17.36	24.75	17.85	21.01	10	3.0
	CD @ 5%	6.07	5.14	2.56	4.14	2.81	2.43	4.39	1.65			
	CV%	15.7	13.09	6.43	13.82	11.72	6.73	10.33	6.26			



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pest

Table: Initial H X H trial in Central Zone under Protected Conditions - Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
Core 105 BG II	6.01	3.29	-	7.50	3.11	0.00	3.98	BETL
KCH9267 BGII	8.41	3.96	-	7.18	3.47	0.00	4.60	BETL
Neo 1651 BGII	8.83	7.36	-	7.00	3.49	0.00	5.34	BETL
DC5108 BGII	8.99	4.33	-	8.24	1.82	0.00	4.68	BETL
NHH 2214 BG II	5.82	3.89	-	8.01	1.96	0.00	3.93	BETL
US 704 BG II (ZC 2)	2.49	3.47	-	8.03	1.71	0.00	3.14	BETL
AKHH 2024-12 BG II	9.65	4.31	-	7.94	1.20	0.00	4.62	BETL
AKHH-2022-1 BG II	6.41	3.80	-	7.58	1.69	0.00	3.89	BETL
SBCH-4145	4.84	2.22	-	7.55	2.49	0.00	3.42	BETL
KCH9269 BGII	3.63	4.98	-	8.01	2.82	0.00	3.89	BETL
ARCH 777 BG II (ZC 1)	4.14	4.56	-	7.70	3.64	0.00	4.01	BETL
SP 7713 BGII	5.44	4.22	-	7.54	1.73	0.00	3.79	BETL
PMCH-114 Bt2	2.36	6.69	-	6.74	3.00	0.00	3.76	BETL
KCH9268 BGII	2.66	5.38	-	7.01	2.47	0.00	3.50	BETL
NHH 250 BG II	4.11	4.07	-	8.24	2.87	0.00	3.86	BETL
SP 7714 BGII	4.34	4.93	-	8.78	1.44	0.00	3.90	BETL
SBCH-2142	4.70	4.44	-	7.94	3.07	0.00	4.03	BETL
AKHH-2024-11 BG II	4.65	5.91	-	8.12	3.73	0.00	4.48	BETL
GBBHH 5/2022 BG II	4.59	4.13	-	7.35	3.67	0.00	3.95	BETL
AKHH-2022-2 BGII	2.53	5.56	-	8.35	2.49	0.00	3.79	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	1.38	1.73	2.38	1.64	1.16	6.89	2.53	BETL
KCH9267 BGII	3.26	4.93	1.84	1.62	0.93	5.00	2.93	BETL
Neo 1651 BGII	3.54	4.11	1.98	1.11	1.01	5.44	2.87	BETL
DC5108 BGII	2.81	2.91	2.18	1.49	0.78	4.00	2.36	BETL
NHH 2214 BG II	1.58	4.29	1.24	1.56	0.80	3.56	2.17	BETL
US 704 BG II (ZC 2)	1.17	2.38	1.22	1.02	0.38	7.56	2.29	BETL
AKHH 2024-12 BG II	2.55	3.93	1.64	1.40	0.38	5.22	2.52	BETL
AKHH-2022-1 BG II	1.64	2.20	1.67	1.30	0.31	6.00	2.19	BETL
SBCH-4145	1.66	5.20	1.93	1.67	0.91	3.00	2.39	BETL
KCH9269 BGII	2.26	4.04	1.78	1.51	0.69	5.78	2.68	BETL
ARCH 777 BG II (ZC 1)	1.78	3.22	1.91	1.62	0.91	6.89	2.72	BETL
SP 7713 BGII	1.83	4.09	2.07	1.70	0.60	4.89	2.53	BETL
PMCH-114 Bt2	1.59	4.33	2.09	1.30	0.47	7.00	2.80	BETL
KCH9268 BGII	1.16	3.07	1.96	1.49	0.56	6.78	2.50	BETL
NHH 250 BG II	1.61	2.67	1.09	1.34	0.47	8.45	2.60	BETL
SP 7714 BGII	1.91	2.44	2.20	2.04	0.58	6.44	2.60	BETL
SBCH-2142	1.44	2.51	1.93	1.33	0.71	5.78	2.28	BETL
AKHH-2024-11 BG II	1.97	4.18	1.96	1.62	0.98	4.22	2.49	BETL
GBBHH 5/2022 BG II	1.91	3.07	2.00	1.62	1.04	7.22	2.81	BETL
AKHH-2022-2 BGII	1.14	5.22	1.87	1.66	0.98	8.11	3.16	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H trial in Central Zone under Protected Conditions –JIG

Name of Entry	JIG /plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	I	I	II	1	II	III	II	
KCH9267 BGII	I	II	II	1	II	II	II	
Neo 1651 BGII	I	I	II	1	II	II	II	
DC5108 BGII	I	I	II	1	II	II	II	
NHH 2214 BG II	I	I	I	1	II	II	I	
US 704 BG II (ZC 2)	I	I	I	1	II	III	II	
AKHH 2024-12 BG II	I	I	II	1	II	II	II	
AKHH-2022-1 BG II	I	I	II	1	II	II	II	
SBCH-4145	I	II	II	1	II	II	II	
KCH9269 BGII	I	II	II	1	II	II	II	
ARCH 777 BG II (ZC 1)	I	I	II	1	II	II	II	
SP 7713 BGII	I	I	II	1	II	II	II	
PMCH-114 Bt2	I	I	II	1	II	III	II	
KCH9268 BGII	I	I	II	1	II	III	II	
NHH 250 BG II	I	I	I	1	II	III	II	
SP 7714 BGII	I	I	II	1	II	III	II	
SBCH-2142	I	I	II	1	II	II	II	
AKHH-2024-11 BG II	I	I	II	1	II	II	II	
GBBHH 5/2022 BG II	I	I	II	1	II	II	II	
AKHH-2022-2 BGII	I	II	II	1	II	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Protected Conditions - Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	10.74	6.60	1.82	0.70	4.09	0.00	3.99	BETL
KCH9267 BGII	15.01	6.49	2.80	0.88	2.53	0.00	4.62	BETL
Neo 1651 BGII	15.72	6.07	2.20	0.67	1.62	0.00	4.38	BETL
DC5108 BGII	19.19	11.04	2.38	0.92	2.98	0.00	6.08	BETL
NHH 2214 BG II	14.30	6.36	2.27	0.95	4.11	0.00	4.66	BETL
US 704 BG II (ZC 2)	7.62	8.42	2.49	0.84	1.22	0.00	3.43	BETL
AKHH 2024-12 BG II	13.41	6.78	2.42	0.62	1.18	0.00	4.07	BETL
AKHH-2022-1 BG II	12.63	6.96	2.38	0.72	1.98	0.00	4.11	BETL
SBCH-4145	11.70	7.38	1.91	0.76	2.44	0.00	4.03	BETL
KCH9269 BGII	10.42	6.80	2.20	0.46	1.49	0.00	3.56	BETL
ARCH 777 BG II (ZC 1)	11.74	6.73	1.64	0.69	1.40	0.00	3.70	BETL
SP 7713 BGII	17.68	12.07	2.09	0.80	1.91	0.00	5.76	BETL
PMCH-114 Bt2	7.96	8.09	2.18	0.61	1.89	0.00	3.45	BETL
KCH9268 BGII	6.75	5.71	1.89	0.64	1.18	0.00	2.70	BETL
NHH 250 BG II	9.93	7.60	1.82	0.48	1.62	0.00	3.58	BETL
SP 7714 BGII	9.51	7.89	2.53	0.63	1.33	0.00	3.65	BETL
SBCH-2142	8.61	7.20	2.11	0.47	1.42	0.00	3.30	BETL
AKHH-2024-11 BG II	8.35	7.96	2.13	0.54	1.98	0.00	3.49	BETL
GBBHH 5/2022 BG II	7.96	6.73	2.13	0.75	2.22	0.00	3.30	BETL
AKHH-2022-2 BGII	6.05	6.71	2.60	0.64	1.29	0.00	2.88	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	1.15	0.78	4.20	0.67	0.16	4.56	1.92	BETL
KCH9267 BGII	1.22	0.82	3.73	0.63	0.20	2.33	1.49	BETL
Neo 1651 BGII	1.59	1.22	4.07	0.64	0.13	2.89	1.76	BETL
DC5108 BGII	1.43	0.71	3.89	0.62	0.13	1.56	1.39	BETL
NHH 2214 BG II	0.62	0.64	3.71	0.66	0.18	1.11	1.15	BETL
US 704 BG II (ZC 2)	0.38	0.89	3.42	0.70	0.11	4.89	1.73	BETL
AKHH 2024-12 BG II	1.35	0.62	3.67	0.76	0.11	2.44	1.49	BETL
AKHH-2022-1 BG II	1.18	0.87	3.58	0.69	0.22	3.78	1.72	BETL
SBCH-4145	1.03	0.67	3.80	0.69	0.09	1.00	1.21	BETL
KCH9269 BGII	1.11	0.56	4.51	0.69	0.16	3.22	1.71	BETL
ARCH 777 BG II (ZC 1)	0.91	0.73	3.33	0.62	0.16	4.33	1.68	BETL
SP 7713 BGII	0.75	0.69	3.44	0.82	0.13	2.04	1.31	BETL
PMCH-114 Bt2	0.33	0.49	3.62	0.71	0.09	4.81	1.68	BETL
KCH9268 BGII	0.67	0.62	3.76	0.71	0.18	4.00	1.66	BETL
NHH 250 BG II	1.16	0.44	3.78	0.69	0.13	5.44	1.94	BETL
SP 7714 BGII	1.27	0.82	4.09	0.89	0.11	3.89	1.84	BETL
SBCH-2142	1.11	0.51	3.40	0.72	0.11	3.11	1.49	BETL
AKHH-2024-11 BG II	1.16	0.71	3.58	0.67	0.22	1.89	1.37	BETL
GBBHH 5/2022 BG II	1.13	0.64	3.76	0.82	0.20	4.78	1.89	BETL
AKHH-2022-2 BGII	0.46	0.47	3.69	0.78	0.13	5.22	1.79	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Protected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
Core 105 BG II	0.23	1.11	-	0.03	2.00	0.19	0.71	
KCH9267 BGII	0.23	0.91	-	0.07	1.87	0.20	0.66	
Neo 1651 BGII	0.35	2.02	-	0.05	2.04	0.19	0.93	
DC5108 BGII	0.19	1.18	-	0.02	1.31	0.21	0.58	
NHH 2214 BG II	0.50	0.89	-	0.03	1.36	0.20	0.60	
US 704 BG II (ZC 2)	0.35	1.02	-	0.04	1.53	0.18	0.62	
AKHH 2024-12 BG II	0.34	0.89	-	0.05	1.36	0.23	0.57	
AKHH-2022-1 BG II	0.24	1.11	-	0.01	1.29	0.22	0.58	
SBCH-4145	0.44	1.36	-	0.01	1.82	0.19	0.76	
KCH9269 BGII	0.27	1.29	-	0.04	1.87	0.19	0.73	
ARCH 777 BG II (ZC 1)	0.44	1.11	-	0.04	2.16	0.20	0.79	
SP 7713 BGII	0.39	1.11	-	0.05	1.44	0.23	0.65	
PMCH-114 Bt2	0.25	1.51	-	0.01	2.02	0.18	0.79	
KCH9268 BGII	0.37	1.56	-	0.08	1.80	0.19	0.80	
NHH 250 BG II	0.41	1.82	-	0.06	1.00	0.20	0.70	
SP 7714 BGII	0.33	1.76	-	0.06	0.93	0.18	0.65	
SBCH-2142	0.33	1.27	-	0.01	1.04	0.23	0.58	
AKHH-2024-11 BG II	0.43	1.44	-	0.03	1.20	0.22	0.67	
GBBHH 5/2022 BG II	0.40	1.64	-	0.04	1.11	0.19	0.68	
AKHH-2022-2 BGII	0.30	2.02	-	0.02	0.96	0.19	0.70	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara, * Data not given

Table: Initial H X H trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-4145	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-2142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara, * Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions –Spotted/ Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-4145	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-2142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial H X H trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-4145	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-2142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.49	0.56	2.06	0.00	0.22	0.00	0.55	BETL
KCH9267 BGII	1.09	0.78	1.31	0.00	0.44	0.00	0.60	BETL
Neo 1651 BGII	1.17	0.56	1.00	0.34	0.44	0.00	0.58	BETL
DC5108 BGII	0.90	0.89	1.27	0.00	0.56	0.00	0.60	BETL
NHH 2214 BG II	0.57	0.56	1.02	0.00	0.44	0.00	0.43	BETL
US 704 BG II (ZC 2)	0.38	0.67	1.28	0.67	0.11	0.00	0.52	BETL
AKHH 2024-12 BG II	1.01	1.56	3.42	0.00	0.11	0.00	1.02	AETL
AKHH-2022-1 BG II	0.91	0.56	2.43	0.00	0.11	0.00	0.67	BETL
SBCH-4145	0.69	0.33	2.59	0.00	0.33	0.00	0.66	BETL
KCH9269 BGII	0.49	0.44	1.91	0.00	0.33	0.00	0.53	BETL
ARCH 777 BG II (ZC 1)	0.49	0.44	2.62	0.00	0.11	0.00	0.61	BETL
SP 7713 BGII	0.45	1.00	1.63	0.00	0.11	0.00	0.53	BETL
PMCH-114 Bt2	0.27	0.78	1.18	0.34	0.22	0.00	0.46	BETL
KCH9268 BGII	0.18	0.56	1.02	0.00	0.44	0.00	0.37	BETL
NHH 250 BG II	0.65	0.33	1.30	0.00	0.11	0.00	0.40	BETL
SP 7714 BGII	0.57	0.44	1.89	0.00	0.00	0.00	0.48	BETL
SBCH-2142	0.57	0.11	1.06	0.34	0.11	0.00	0.36	BETL
AKHH-2024-11 BG II	0.61	0.67	2.13	0.00	0.22	0.00	0.60	BETL
GBBHH 5/2022 BG II	0.34	0.67	1.69	0.00	0.44	0.00	0.52	BETL
AKHH-2022-2 BGII	0.38	0.67	1.16	0.00	0.33	0.00	0.42	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H trial in Central Zone under Protected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-4145	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-2142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial H X H trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	4.53	8.89	20.00	0.00	2.22	0.00	5.94	BETL
KCH9267 BGII	10.26	8.89	12.22	0.00	3.33	0.00	5.78	BETL
Neo 1651 BGII	12.06	8.89	10.00	3.33	4.44	0.00	6.45	BETL
DC5108 BGII	7.57	10.00	14.44	0.00	4.44	0.00	6.08	BETL
NHH 2214 BG II	4.35	11.67	10.00	0.00	3.33	0.00	4.89	BETL
US 704 BG II (ZC 2)	2.03	8.89	11.11	6.67	1.11	0.00	4.97	BETL
AKHH 2024-12 BG II	8.59	10.00	35.56	0.00	1.11	0.00	9.21	BETL
AKHH-2022-1 BG II	9.49	10.56	22.22	0.00	1.11	0.00	7.23	BETL
SBCH-4145	5.21	8.33	24.44	0.00	3.33	0.00	6.89	BETL
KCH9269 BGII	4.53	7.22	18.89	0.00	4.44	0.00	5.85	BETL
ARCH 777 BG II (ZC 1)	3.73	9.44	26.67	0.00	1.11	0.00	6.83	BETL
SP 7713 BGII	3.73	8.89	16.67	0.00	1.11	0.00	5.07	BETL
PMCH-114 Bt2	1.15	10.00	10.00	3.33	2.22	0.00	4.45	BETL
KCH9268 BGII	1.15	11.67	6.67	0.00	4.44	0.00	3.99	BETL
NHH 250 BG II	4.35	6.67	12.22	0.00	1.11	0.00	4.06	BETL
SP 7714 BGII	5.93	12.78	20.00	0.00	0.00	0.00	6.45	BETL
SBCH-2142	4.35	5.56	10.00	3.33	1.11	0.00	4.06	BETL
AKHH-2024-11 BG II	5.21	7.22	24.44	0.00	2.22	0.00	6.52	BETL
GBBHH 5/2022 BG II	3.73	6.67	16.67	0.00	3.33	0.00	5.07	BETL
AKHH-2022-2 BGII	3.16	7.22	10.00	0.00	3.33	0.00	3.95	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	7.62	4.00	23.96	4.05	2.06	0.00	6.95	
KCH9267 BGII	9.76	4.62	14.37	7.45	4.32	0.00	6.75	
Neo 1651 BGII	10.27	5.29	12.71	6.02	5.97	0.00	6.71	
DC5108 BGII	10.01	4.00	13.88	5.26	5.72	0.00	6.48	
NHH 2214 BG II	5.84	4.62	10.78	1.16	4.84	0.00	4.54	
US 704 BG II (ZC 2)	3.45	3.26	14.00	3.66	1.63	0.00	4.33	
AKHH 2024-12 BG II	10.37	4.00	32.88	1.18	2.65	0.00	8.51	
AKHH-2022-1 BG II	8.45	3.83	18.58	3.11	1.84	0.00	5.97	
SBCH-4145	6.07	4.62	21.22	8.46	4.33	0.00	7.45	
KCH9269 BGII	6.24	3.83	17.84	0.54	5.99	0.00	5.74	
ARCH 777 BG II (ZC 1)	6.02	3.83	24.09	8.55	1.22	0.00	7.28	
SP 7713 BGII	5.25	3.26	18.64	9.70	1.14	0.00	6.33	
PMCH-114 Bt2	5.12	4.62	13.47	2.48	1.60	0.00	4.55	
KCH9268 BGII	2.83	4.62	9.69	4.11	4.54	0.00	4.30	
NHH 250 BG II	6.59	4.62	14.92	7.41	4.18	0.00	6.29	
SP 7714 BGII	6.64	2.59	22.26	6.00	8.61	0.00	7.68	
SBCH-2142	6.15	4.62	13.44	2.23	2.27	0.00	4.79	
AKHH-2024-11 BG II	4.98	4.00	27.06	13.04	5.56	0.00	9.11	
GBBHH 5/2022 BG II	5.70	4.00	14.99	8.28	8.42	0.00	6.90	
AKHH-2022-2 BGII	3.01	2.59	11.70	6.14	7.79	0.00	5.21	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Protected Conditions - Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	3.62	2.00	7.92	1.30	0.90	0.00	2.62	
KCH9267 BGII	4.78	2.33	5.13	2.80	1.83	0.00	2.81	
Neo 1651 BGII	5.00	3.17	4.22	1.66	2.51	0.00	2.76	
DC5108 BGII	4.96	1.83	5.62	2.26	2.53	0.00	2.87	
NHH 2214 BG II	2.85	2.67	3.57	0.58	1.97	0.00	1.94	
US 704 BG II (ZC 2)	1.72	1.83	4.83	1.52	0.71	0.00	1.77	
AKHH 2024-12 BG II	3.98	2.33	10.63	0.59	1.12	0.00	3.11	
AKHH-2022-1 BG II	4.04	2.33	6.24	1.22	0.76	0.00	2.43	
SBCH-4145	3.03	2.67	7.71	2.69	1.81	0.00	2.98	
KCH9269 BGII	3.12	2.33	6.02	0.27	2.46	0.00	2.37	
ARCH 777 BG II (ZC 1)	3.14	2.33	8.21	3.42	0.43	0.00	2.92	
SP 7713 BGII	2.53	1.67	6.46	2.61	0.56	0.00	2.30	
PMCH-114 Bt2	2.49	2.17	4.49	0.99	0.64	0.00	1.80	
KCH9268 BGII	1.46	3.00	3.02	1.60	2.15	0.00	1.87	
NHH 250 BG II	3.25	2.67	5.22	3.09	1.79	0.00	2.67	
SP 7714 BGII	3.27	1.67	8.08	2.17	3.96	0.00	3.19	
SBCH-2142	2.95	2.17	5.35	0.98	0.77	0.00	2.04	
AKHH-2024-11 BG II	2.93	2.00	9.22	3.53	3.29	0.00	3.50	
GBBHH 5/2022 BG II	3.45	2.00	5.52	3.25	4.12	0.00	3.06	
AKHH-2022-2 BGII	1.55	1.83	4.98	2.41	3.54	0.00	2.39	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H trial in Central Zone under Protected Conditions – No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect- pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
Core 105 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
KCH9267 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
Neo 1651 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
DC5108 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
NHH 2214 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
US 704 BG II (ZC 2)	5.00	3.00	5.00	-	3.00	4.00	4.00	
AKHH 2024-12 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
AKHH-2022-1 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
SBCH-4145	5.00	3.00	5.00	-	3.00	4.00	4.00	
KCH9269 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 777 BG II (ZC 1)	5.00	3.00	5.00	-	3.00	4.00	4.00	
SP 7713 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
PMCH-114 Bt2	5.00	3.00	5.00	-	3.00	4.00	4.00	
KCH9268 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
NHH 250 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
SP 7714 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
SBCH-2142	5.00	3.00	5.00	-	3.00	4.00	4.00	
AKHH-2024-11 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
GBBHH 5/2022 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
AKHH-2022-2 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara, * Data not given



Reaction to Diseases

Table 10 (a): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Rainfed (IET HxH hybrids RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions													
			Bharuch				CICR, Nagpur									
			BLB		ALS		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
10	53001	Core 105 BG II	2.3	R	3.7	R	14.7	R	0.0	DF	8.3	R	29.7	MR	32.4	MR
20	53002	KCH9267 BGII	2.2	R	2.2	R	18.0	R	0.0	DF	31.7	MR	29.1	MR	41.3	MR
1	53003	Neo 1651 BGII	2.7	R	2.2	R	28.6	MR	0.0	DF	0.0	DF	27.8	MR	41.8	MR
13	53004	DC5108 BGII	2.3	R	2.8	R	10.8	R	0.0	DF	8.0	R	23.8	R	40.3	MR
7	53005	NHH 2214 BG II	2.5	R	1.5	R	20.5	R	19.3	R	0.0	DF	24.4	R	40.5	MR
19	53006	US 704 BG II (ZC 2)	2.3	R	1.8	R	13.3	R	0.0	DF	16.7	R	21.9	R	46.7	MR
6	53007	AKHH 2024-12 BG II	3.3	R	5.2	R	13.0	R	0.0	DF	24.4	R	26.1	MR	36.6	MR
5	53008	AKHH-2022-1 BG II	3.8	R	2.0	R	21.7	R	0.0	DF	5.5	R	33.3	MR	43.3	MR
8	53009	SBCH-4145	3.7	R	2.5	R	7.8	R	5.5	R	19.2	R	31.1	MR	49.2	MR
9	53010	KCH9269 BGII	3.7	R	2.7	R	17.2	R	0.0	DF	2.8	R	20.0	R	31.3	MR
12	53011	ARCH 777 BG II (ZC 1)	3.0	R	3.0	R	21.3	R	0.0	DF	2.8	R	20.0	R	36.3	MR
18	53012	SP 7713 BGII	2.7	R	2.2	R	19.4	R	0.0	DF	8.3	R	33.3	MR	41.7	MR
3	53013	PMCH-114 Bt2	3.0	R	1.7	R	10.3	R	0.0	DF	0.0	DF	26.7	MR	38.8	MR
14	53014	KCH9268 BGII	3.7	R	2.2	R	26.7	MR	0.0	DF	0.0	DF	28.3	MR	36.7	MR
15	53015	NHH 250 BG II	8.8	R	2.2	R	28.6	MR	0.0	DF	0.0	DF	19.2	R	39.4	MR
11	53016	SP 7714 BGII	6.0	R	5.5	R	20.2	R	0.0	DF	0.0	DF	38.3	MR	44.4	MR
4	53017	SBCH-2142	4.0	R	4.5	R	15.8	R	0.0	DF	4.1	R	33.3	MR	42.5	MR
16	53018	AKHH-2024-11 BG II	9.5	R	3.8	R	16.3	R	0.0	DF	3.8	R	26.7	MR	42.2	MR
17	53019	GBBHH 5/2022 BG II	4.5	R	2.7	R	16.7	R	0.0	DF	0.0	DF	25.3	MR	46.3	MR
2	53020	AKHH-2022-2 BGII	3.5	R	2.7	R	33.3	MR	29.1	MR	30.8	MR	31.1	MR	49.7	MR



Table 10 (b): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Rainfed (IET HxH hybrids RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions															
			Surat				PDKV, Akola						Nanded					
			BLB		ALS		BLB		GM		MLS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
10	53001	Core 105 BG II	0.0	DF	0.0	DF	3.8	R	6.3	R	20.0	R	5.4	R	2.4	R	7.2	R
20	53002	KCH9267 BGII	12.2	R	0.0	DF	22.5	R	22.5	R	21.3	R	0.0	DF	6.4	R	6.4	R
1	53003	Neo 1651 BGII	0.0	DF	0.0	DF	18.8	R	17.5	R	16.3	R	3.7	R	4.8	R	5.7	R
13	53004	DC5108 BGII	14.7	R	0.0	DF	23.8	R	18.8	R	18.8	R	4.5	R	0.0	DF	7.5	R
7	53005	NHH 2214 BG II	3.7	R	2.5	R	3.8	R	20.0	R	16.3	R	0.0	DF	4.3	R	9.0	R
19	53006	US 704 BG II (ZC 2)	0.0	DF	0.0	DF	5.0	R	16.3	R	17.5	R	4.8	R	6.0	R	7.5	R
6	53007	AKHH 2024-12 BG II	3.2	R	0.0	DF	6.3	R	25.0	R	21.3	R	3.6	R	0.0	DF	8.4	R
5	53008	AKHH-2022-1 BG II	0.0	DF	0.0	DF	7.5	R	21.3	R	22.5	R	4.0	R	5.2	R	5.3	R
8	53009	SBCH-4145	18.2	R	0.0	DF	10.0	R	18.8	R	23.8	R	5.1	R	6.1	R	7.7	R
9	53010	KCH9269 BGII	0.0	DF	2.7	R	11.3	R	25.0	R	25.0	R	4.2	R	0.0	DF	7.7	R
12	53011	ARCH 777 BG II (ZC 1)	0.0	DF	0.0	DF	12.5	R	18.8	R	20.0	R	5.6	R	3.4	R	7.6	R
18	53012	SP 7713 BGII	0.0	DF	2.8	R	25.0	R	21.3	R	25.0	R	6.7	R	4.2	R	6.3	R
3	53013	PMCH-114 Bt2	0.0	DF	0.0	DF	18.8	R	22.5	R	21.3	R	4.1	R	4.3	R	6.1	R
14	53014	KCH9268 BGII	5.7	R	0.0	DF	6.3	R	23.8	R	23.8	R	3.6	R	3.2	R	8.0	R
15	53015	NHH 250 BG II	0.0	DF	1.8	R	15.0	R	20.0	R	15.0	R	2.7	R	3.1	R	6.5	R
11	53016	SP 7714 BGII	0.0	DF	0.0	DF	18.8	R	22.5	R	26.3	MR	3.6	R	2.1	R	6.1	R
4	53017	SBCH-2142	9.2	R	0.0	DF	6.3	R	21.3	R	25.0	R	3.9	R	0.0	DF	6.3	R
16	53018	AKHH-2024-11 BG II	0.0	DF	0.0	DF	8.8	R	25.0	R	22.5	R	0.0	DF	0.0	DF	6.7	R
17	53019	GBBHH 5/2022 BG II	0.0	DF	3.7	R	5.0	R	20.0	R	20.0	R	2.6	R	2.5	R	7.9	R
2	53020	AKHH-2022-2 BGII	0.0	DF	2.2	R	3.8	R	18.8	R	23.8	R	2.7	R	4.8	R	8.2	R



Table 10 (c): Initial Evaluation Trial of Intra-Hirsutum Hybrids –Rainfed (IET HXH Hybrids RF) under Protected and Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions: Kaveri, Aurangabad								Average PDI & Disease Reaction (DR): Unprotected conditions: Kaveri, Aurangabad							
			ALS		GM		BLB		TSV		ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
10	53001	Core 105 BG II	13.5	R	5.6	R	4.4	R	2.1	R	26.3	MR	13.5	R	10.2	R	13.7	R
20	53002	KCH9267 BGII	4.8	R	3.6	R	2.6	R	0.7	R	9.8	R	10.7	R	7.1	R	3.2	R
1	53003	Neo 1651 BGII	8.7	R	5.5	R	4.6	R	1.5	R	17.2	R	13.3	R	10.7	R	8.0	R
13	53004	DC5108 BGII	7.5	R	6.7	R	5.5	R	2.5	R	16.0	R	19.2	R	12.8	R	11.4	R
7	53005	NHH 2214 BG II	8.6	R	7.8	R	7.3	R	2.1	R	17.8	R	29.9	MR	25.7	MR	9.1	R
19	53006	US 704 BG II (ZC 2)	9.4	R	8.6	R	4.3	R	2.4	R	19.1	R	24.2	R	12.8	R	10.3	R
6	53007	AKHH 2024-12 BG II	7.9	R	5.5	R	4.0	R	1.5	R	15.9	R	13.5	R	11.4	R	5.8	R
5	53008	AKHH-2022-1 BG II	8.7	R	8.1	R	4.1	R	3.2	R	19.0	R	19.7	R	10.2	R	8.0	R
8	53009	SBCH-4145	26.7	MR	6.3	R	4.9	R	2.8	R	27.6	MR	17.1	R	16.4	R	13.7	R
9	53010	KCH9269 BGII	6.0	R	4.8	R	3.0	R	0.8	R	14.1	R	12.1	R	8.5	R	3.4	R
12	53011	ARCH 777 BG II (ZC 1)	9.9	R	6.4	R	5.2	R	2.4	R	21.9	R	17.8	R	15.0	R	4.4	R
18	53012	SP 7713 BGII	10.6	R	8.8	R	4.7	R	2.4	R	21.4	R	19.3	R	12.1	R	8.0	R
3	53013	PMCH-114 Bt2	9.2	R	6.7	R	7.4	R	4.1	R	20.2	R	20.0	R	23.5	R	14.8	R
14	53014	KCH9268 BGII	5.4	R	5.2	R	3.3	R	1.2	R	10.8	R	12.8	R	9.3	R	3.5	R
15	53015	NHH 250 BG II	11.0	R	7.2	R	5.2	R	5.9	R	17.8	R	17.4	R	16.4	R	6.8	R
11	53016	SP 7714 BGII	9.6	R	6.1	R	7.8	R	2.5	R	28.8	MR	13.5	R	22.8	R	13.7	R
4	53017	SBCH-2142	8.8	R	26.6	MR	3.9	R	2.3	R	19.6	R	27.8	MR	11.4	R	9.1	R
16	53018	AKHH-2024-11 BG II	10.0	R	6.1	R	4.3	R	1.6	R	19.1	R	14.3	R	14.3	R	6.8	R
17	53019	GBBHH 5/2022 BG II	9.2	R	6.7	R	7.4	R	3.8	R	20.2	R	20.0	R	23.5	R	10.3	R
2	53020	AKHH-2022-2 BGII	10.5	R	7.9	R	3.7	R	2.5	R	26.3	MR	17.1	R	9.3	R	8.6	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pest

Table: Initial H X H trial in Central Zone under Unprotected Conditions - Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	10.67	4.33	-	5.20	9.33	0.00	5.91	BETL
KCH9267 BGII	12.80	6.93	-	4.84	10.47	0.00	7.01	BETL
Neo 1651 BGII	14.53	15.80	-	3.13	10.67	0.00	8.83	BETL
DC5108 BGII	15.13	5.73	-	8.11	5.33	0.00	6.86	BETL
NHH 2214 BG II	10.53	7.60	-	5.91	5.60	0.00	5.93	BETL
US 704 BG II (ZC 2)	4.80	5.07	-	5.51	5.73	0.00	4.22	BETL
AKHH 2024-12 BG II	15.27	7.40	-	5.76	4.20	0.00	6.52	BETL
AKHH-2022-1 BG II	10.93	5.33	-	6.44	5.20	0.00	5.58	BETL
SBCH-4145	8.40	3.47	-	6.56	8.53	0.00	5.39	BETL
KCH9269 BGII	8.40	8.87	-	6.98	8.20	0.00	6.49	BETL
ARCH 777 BG II (ZC 1)	8.33	7.40	-	3.07	10.33	0.00	5.83	BETL
SP 7713 BGII	8.93	8.13	-	3.27	5.33	0.00	5.13	BETL
PMCH-114 Bt2	4.80	10.47	-	3.31	10.53	0.00	5.82	BETL
KCH9268 BGII	5.47	8.87	-	2.98	8.20	0.00	5.10	BETL
NHH 250 BG II	8.40	7.93	-	2.58	8.20	0.00	5.42	BETL
SP 7714 BGII	7.73	7.73	-	3.33	4.33	0.00	4.63	BETL
SBCH-2142	8.20	5.87	-	2.80	9.27	0.00	5.23	BETL
AKHH-2024-11 BG II	8.60	10.13	-	3.11	10.73	0.00	6.52	BETL
GBBHH 5/2022 BG II	9.47	8.73	-	1.33	10.53	0.00	6.01	BETL
AKHH-2022-2 BGII	4.60	9.20	-	5.16	8.47	0.00	5.48	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	1.73	2.40	-	2.13	3.73	7.67	3.53	BETL
KCH9267 BGII	4.00	5.73	-	1.18	2.93	6.00	3.97	BETL
Neo 1651 BGII	4.33	5.67	-	1.51	3.27	6.22	4.20	BETL
DC5108 BGII	3.40	4.73	-	1.47	2.60	4.55	3.35	BETL
NHH 2214 BG II	1.93	5.40	-	1.24	2.60	4.22	3.08	BETL
US 704 BG II (ZC 2)	1.53	3.73	-	0.76	1.67	8.22	3.18	BETL
AKHH 2024-12 BG II	3.00	5.80	-	1.07	1.53	6.00	3.48	BETL
AKHH-2022-1 BG II	1.93	3.73	-	1.04	1.07	6.78	2.91	BETL
SBCH-4145	2.00	6.60	-	1.24	3.33	3.89	3.41	BETL
KCH9269 BGII	2.73	5.87	-	1.24	2.20	6.56	3.72	BETL
ARCH 777 BG II (ZC 1)	2.27	5.53	-	1.44	2.67	7.56	3.89	BETL
SP 7713 BGII	2.13	5.00	-	1.00	2.07	5.55	3.15	BETL
PMCH-114 Bt2	2.27	5.53	-	1.18	1.80	7.89	3.73	BETL
KCH9268 BGII	1.60	3.93	-	1.51	2.07	7.22	3.27	BETL
NHH 250 BG II	1.87	3.27	-	1.18	1.27	9.00	3.32	BETL
SP 7714 BGII	2.33	3.13	-	0.96	1.73	7.11	3.05	BETL
SBCH-2142	1.67	3.40	-	1.40	2.13	6.44	3.01	BETL
AKHH-2024-11 BG II	2.27	5.87	-	1.36	2.80	5.11	3.48	BETL
GBBHH 5/2022 BG II	2.07	3.80	-	1.29	3.07	7.89	3.62	BETL
AKHH-2022-2 BGII	1.53	7.13	-	1.18	3.20	8.55	4.32	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



able: Initial H X H trial in Central Zone under Unprotected Conditions –JIG

Name of Entry	JIG /plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	I	I	-	I	II	III	II	
KCH9267 BGII	I	I	-	I	II	III	II	
Neo 1651 BGII	I	I	-	I	II	III	I	
DC5108 BGII	I	I	-	I	II	II	I	
NHH 2214 BG II	I	I	-	0	II	II	I	
US 704 BG II (ZC 2)	I	I	-	0	I	III	I	
AKHH 2024-12 BG II	I	II	-	I	I	II	I	
AKHH-2022-1 BG II	I	I	-	I	I	III	I	
SBCH-4145	I	II	-	I	II	II	II	
KCH9269 BGII	I	II	-	0	II	III	II	
ARCH 777 BG II (ZC 1)	I	I	-	I	II	III	II	
SP 7713 BGII	I	I	-	0	II	II	I	
PMCH-114 Bt2	I	II	-	I	II	III	II	
KCH9268 BGII	I	I	-	I	II	III	II	
NHH 250 BG II	I	I	-	I	II	III	II	
SP 7714 BGII	I	I	-	0	II	II	I	
SBCH-2142	I	I	-	I	II	III	II	
AKHH-2024-11 BG II	I	II	-	I	II	II	II	
GBBHH 5/2022 BG II	I	I	-	0	II	III	I	
AKHH-2022-2 BGII	I	II	-	I	II	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions - Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	13.67	8.40	-	0.56	11.67	0.00	6.86	BETL
KCH9267 BGII	19.53	10.80	-	0.56	7.27	0.00	7.63	BETL
Neo 1651 BGII	19.20	8.47	-	0.44	4.53	0.00	6.53	BETL
DC5108 BGII	22.53	17.00	-	0.44	8.47	0.00	9.69	BETL
NHH 2214 BG II	17.07	8.47	-	0.73	11.13	0.00	7.48	BETL
US 704 BG II (ZC 2)	10.87	11.20	-	0.62	3.93	0.00	5.32	BETL
AKHH 2024-12 BG II	17.93	9.33	-	0.89	3.80	0.00	6.39	BETL
AKHH-2022-1 BG II	16.20	11.07	-	0.44	4.07	0.00	6.36	BETL
SBCH-4145	14.47	11.27	-	0.49	7.73	0.00	6.79	BETL
KCH9269 BGII	13.00	10.40	-	0.49	4.13	0.00	5.60	BETL
ARCH 777 BG II (ZC 1)	13.93	10.53	-	0.76	3.80	0.00	5.80	BETL
SP 7713 BGII	21.47	21.47	-	0.71	5.67	0.00	9.86	BETL
PMCH-114 Bt2	10.80	11.73	-	0.60	6.60	0.00	5.95	BETL
KCH9268 BGII	9.60	8.93	-	0.71	3.73	0.00	4.60	BETL
NHH 250 BG II	12.00	10.20	-	0.44	4.67	0.00	5.46	BETL
SP 7714 BGII	14.67	11.33	-	0.67	4.00	0.00	6.13	BETL
SBCH-2142	13.87	12.47	-	0.58	4.53	0.00	6.29	BETL
AKHH-2024-11 BG II	15.73	11.00	-	0.56	5.73	0.00	6.60	BETL
GBBHH 5/2022 BG II	13.40	11.00	-	0.64	6.53	0.00	6.32	BETL
AKHH-2022-2 BGII	8.87	12.20	-	0.40	4.40	0.00	5.17	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	1.53	1.40	-	0.89	0.47	5.00	1.86	BETL
KCH9267 BGII	1.73	1.93	-	0.82	0.60	2.93	1.60	BETL
Neo 1651 BGII	2.20	3.20	-	0.60	0.40	3.44	1.97	BETL
DC5108 BGII	1.87	1.20	-	0.91	0.40	2.11	1.30	BETL
NHH 2214 BG II	1.20	0.87	-	0.56	0.53	1.67	0.96	BETL
US 704 BG II (ZC 2)	0.73	1.33	-	0.51	0.47	5.44	1.70	BETL
AKHH 2024-12 BG II	1.60	0.67	-	0.53	0.40	3.22	1.28	BETL
AKHH-2022-1 BG II	1.73	1.00	-	0.82	0.67	4.11	1.67	BETL
SBCH-4145	1.20	0.73	-	0.80	0.20	1.33	0.85	BETL
KCH9269 BGII	1.33	0.60	-	0.82	0.47	3.78	1.40	BETL
ARCH 777 BG II (ZC 1)	1.07	1.13	-	0.76	0.40	4.78	1.63	BETL
SP 7713 BGII	0.73	0.80	-	0.53	0.40	2.67	1.03	BETL
PMCH-114 Bt2	0.60	0.53	-	0.91	0.27	5.22	1.51	BETL
KCH9268 BGII	0.93	1.13	-	0.89	0.60	4.44	1.60	BETL
NHH 250 BG II	1.67	0.73	-	0.78	0.40	6.00	1.92	BETL
SP 7714 BGII	1.27	1.07	-	0.76	0.27	4.33	1.54	BETL
SBCH-2142	1.53	0.67	-	0.76	0.33	3.78	1.41	BETL
AKHH-2024-11 BG II	1.47	1.13	-	0.78	0.60	2.44	1.28	BETL
GBBHH 5/2022 BG II	1.40	0.93	-	0.73	0.53	5.33	1.79	BETL
AKHH-2022-2 BGII	0.67	0.67	-	0.64	0.47	5.67	1.62	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.27	1.20	-	0.02	3.87	0.22	1.12	
KCH9267 BGII	0.20	1.27	-	0.00	3.73	0.23	1.09	
Neo 1651 BGII	0.40	3.27	-	0.11	4.20	0.22	1.64	
DC5108 BGII	0.27	1.40	-	0.07	2.60	0.24	0.92	
NHH 2214 BG II	0.73	1.13	-	0.00	2.73	0.23	0.97	
US 704 BG II (ZC 2)	0.53	1.20	-	0.00	3.13	0.21	1.02	
AKHH 2024-12 BG II	0.33	1.47	-	0.13	2.80	0.27	1.00	
AKHH-2022-1 BG II	0.40	1.73	-	0.02	2.67	0.26	1.02	
SBCH-4145	0.53	1.87	-	0.00	3.67	0.22	1.26	
KCH9269 BGII	0.47	1.40	-	0.00	3.73	0.22	1.16	
ARCH 777 BG II (ZC 1)	0.33	1.13	-	0.04	4.33	0.23	1.22	
SP 7713 BGII	0.60	1.33	-	0.02	3.00	0.27	1.04	
PMCH-114 Bt2	0.33	1.93	-	0.02	4.07	0.21	1.31	
KCH9268 BGII	0.53	1.60	-	0.09	3.53	0.22	1.20	
NHH 250 BG II	0.73	2.60	-	0.04	2.87	0.23	1.30	
SP 7714 BGII	0.47	2.07	-	0.02	2.93	0.21	1.14	
SBCH-2142	0.53	1.33	-	0.00	3.33	0.27	1.09	
AKHH-2024-11 BG II	0.53	1.53	-	0.07	3.40	0.26	1.16	
GBBHH 5/2022 BG II	0.47	1.27	-	0.11	3.33	0.22	1.08	
AKHH-2022-2 BGII	0.40	3.00	-	0.00	3.40	0.22	1.40	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.27	0.00	0.05	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.27	0.00	0.05	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
SBCH-4145	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
SBCH-2142	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-4145	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-2142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
KCH9267 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
DC5108 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-4145	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
KCH9269 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9268 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SBCH-2142	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.67	1.00	-	0.00	0.33	0.00	0.40	BETL
KCH9267 BGII	1.33	1.00	-	0.00	1.00	0.00	0.67	BETL
Neo 1651 BGII	1.33	0.67	-	0.00	1.00	0.00	0.60	BETL
DC5108 BGII	1.00	1.33	-	0.00	1.67	0.00	0.80	BETL
NHH 2214 BG II	0.67	1.00	-	0.00	1.67	0.00	0.67	BETL
US 704 BG II (ZC 2)	0.67	1.00	-	0.00	0.33	0.00	0.40	BETL
AKHH 2024-12 BG II	1.33	1.67	-	1.00	0.00	0.00	0.80	BETL
AKHH-2022-1 BG II	1.00	1.33	-	0.00	0.33	0.00	0.53	BETL
SBCH-4145	1.00	1.00	-	0.00	1.33	0.00	0.67	BETL
KCH9269 BGII	1.00	0.67	-	1.00	1.67	0.00	0.87	BETL
ARCH 777 BG II (ZC 1)	0.67	0.67	-	1.00	0.00	0.00	0.47	BETL
SP 7713 BGII	0.67	1.00	-	1.00	0.00	0.00	0.53	BETL
PMCH-114 Bt2	0.67	1.00	-	0.00	0.33	0.00	0.40	BETL
KCH9268 BGII	0.67	0.67	-	0.00	1.67	0.00	0.60	BETL
NHH 250 BG II	0.67	1.00	-	0.00	0.67	0.00	0.47	BETL
SP 7714 BGII	1.00	1.00	-	0.00	0.33	0.00	0.47	BETL
SBCH-2142	0.67	0.67	-	0.00	0.33	0.00	0.33	BETL
AKHH-2024-11 BG II	1.00	1.00	-	0.00	1.33	0.00	0.67	BETL
GBBHH 5/2022 BG II	0.67	1.00	-	0.00	1.67	0.00	0.67	BETL
AKHH-2022-2 BGII	0.67	1.00	-	0.00	1.67	0.00	0.67	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



**Table: Initial H X H trial in Central Zone under Unprotected Conditions -Green Boll
Damage due to ABW/SBW/TC**

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH9267 BGII	0.00	0.00	-	0.00	1.60	0.00	0.32	BETL
Neo 1651 BGII	0.00	0.00	-	0.00	1.13	0.00	0.23	BETL
DC5108 BGII	0.00	0.00	-	0.00	1.67	0.00	0.33	BETL
NHH 2214 BG II	0.00	0.00	-	0.00	1.50	0.00	0.30	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.93	0.00	0.19	BETL
AKHH 2024-12 BG II	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
AKHH-2022-1 BG II	0.00	0.00	-	0.00	1.27	0.00	0.25	BETL
SBCH-4145	0.00	0.00	-	0.00	1.73	0.00	0.35	BETL
KCH9269 BGII	0.00	0.00	-	0.00	1.57	0.00	0.31	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7713 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PMCH-114 Bt2	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
KCH9268 BGII	0.00	0.00	-	0.00	1.33	0.00	0.27	BETL
NHH 250 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7714 BGII	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
SBCH-2142	0.00	0.00	-	0.00	1.13	0.00	0.23	BETL
AKHH-2024-11 BG II	0.00	0.00	-	0.00	1.60	0.00	0.32	BETL
GBBHH 5/2022 BG II	0.00	0.00	-	0.00	1.73	0.00	0.35	BETL
AKHH-2022-2 BGII	0.00	0.00	-	0.00	1.13	0.00	0.23	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions –Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	6.67	5.00	-	0.00	6.67	0.00	3.67	BETL
KCH9267 BGII	16.67	11.67	-	0.00	16.67	0.00	9.00	BETL
Neo 1651 BGII	13.33	6.67	-	0.00	20.00	0.00	8.00	BETL
DC5108 BGII	10.00	8.33	-	0.00	20.00	0.00	7.67	BETL
NHH 2214 BG II	6.67	11.67	-	0.00	16.67	0.00	7.00	BETL
US 704 BG II (ZC 2)	6.67	6.67	-	0.00	6.67	0.00	4.00	BETL
AKHH 2024-12 BG II	13.33	8.33	-	10.00	10.00	0.00	8.33	BETL
AKHH-2022-1 BG II	10.00	6.67	-	0.00	6.67	0.00	4.67	BETL
SBCH-4145	10.00	8.33	-	0.00	16.67	0.00	7.00	BETL
KCH9269 BGII	10.00	5.00	-	0.00	20.00	0.00	7.00	BETL
ARCH 777 BG II (ZC 1)	6.67	8.33	-	0.00	3.33	0.00	3.67	BETL
SP 7713 BGII	6.67	10.00	-	10.00	3.33	0.00	6.00	BETL
PMCH-114 Bt2	6.67	8.33	-	0.00	6.67	0.00	4.33	BETL
KCH9268 BGII	6.67	8.33	-	10.00	16.67	0.00	8.33	BETL
NHH 250 BG II	6.67	5.00	-	0.00	13.33	0.00	5.00	BETL
SP 7714 BGII	10.00	6.67	-	0.00	16.67	0.00	6.67	BETL
SBCH-2142	6.67	8.33	-	0.00	3.33	0.00	3.67	BETL
AKHH-2024-11 BG II	10.00	6.67	-	0.00	10.00	0.00	5.33	BETL
GBBHH 5/2022 BG II	6.67	5.00	-	0.00	20.00	0.00	6.33	BETL
AKHH-2022-2 BGII	6.67	6.67	-	0.00	10.00	0.00	4.67	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	8.65	6.00	-	14.00	5.92	0.00	6.91	
KCH9267 BGII	13.25	6.00	-	22.58	14.63	0.00	11.29	
Neo 1651 BGII	12.35	6.00	-	4.55	18.27	0.00	8.23	
DC5108 BGII	11.30	4.00	-	0.00	17.87	0.00	6.63	
NHH 2214 BG II	7.35	4.00	-	0.00	14.87	0.00	5.24	
US 704 BG II (ZC 2)	5.65	6.00	-	0.00	6.08	0.00	3.55	
AKHH 2024-12 BG II	9.64	6.00	-	0.00	8.71	0.00	4.87	
AKHH-2022-1 BG II	7.30	4.00	-	0.00	5.88	0.00	3.44	
SBCH-4145	5.65	4.00	-	0.00	14.81	0.00	4.89	
KCH9269 BGII	8.30	6.00	-	0.00	17.98	0.00	6.46	
ARCH 777 BG II (ZC 1)	7.05	4.00	-	0.00	3.53	0.00	2.92	
SP 7713 BGII	6.35	6.00	-	4.26	3.56	0.00	4.03	
PMCH-114 Bt2	5.48	6.00	-	0.00	6.41	0.00	3.58	
KCH9268 BGII	3.05	4.00	-	13.33	15.21	0.00	7.12	
NHH 250 BG II	6.89	6.00	-	3.70	11.31	0.00	5.58	
SP 7714 BGII	7.36	4.00	-	0.00	20.91	0.00	6.45	
SBCH-2142	6.44	6.00	-	0.00	3.07	0.00	3.10	
AKHH-2024-11 BG II	6.31	6.00	-	1.89	24.84	0.00	7.81	
GBBHH 5/2022 BG II	5.32	4.00	-	7.14	19.78	0.00	7.25	
AKHH-2022-2 BGII	4.50	4.00	-	0.00	20.44	0.00	5.79	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H trial in Central Zone under Unprotected Conditions - Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
Core 105 BG II	3.75	2.50	-	5.50	2.56	0.00	2.86	
KCH9267 BGII	6.77	3.50	-	6.45	6.20	0.00	4.58	
Neo 1651 BGII	6.36	3.00	-	2.27	7.63	0.00	3.85	
DC5108 BGII	5.22	2.50	-	0.00	7.89	0.00	3.12	
NHH 2214 BG II	3.51	2.50	-	0.00	6.03	0.00	2.41	
US 704 BG II (ZC 2)	2.33	3.00	-	0.00	2.62	0.00	1.59	
AKHH 2024-12 BG II	4.47	2.50	-	0.00	3.67	0.00	2.13	
AKHH-2022-1 BG II	4.61	3.50	-	0.00	2.40	0.00	2.10	
SBCH-4145	2.98	4.50	-	0.00	6.15	0.00	2.73	
KCH9269 BGII	4.02	3.00	-	0.00	7.36	0.00	2.88	
ARCH 777 BG II (ZC 1)	3.21	3.50	-	0.00	1.25	0.00	1.59	
SP 7713 BGII	3.15	2.50	-	1.60	1.78	0.00	1.80	
PMCH-114 Bt2	2.75	2.00	-	0.00	2.56	0.00	1.46	
KCH9268 BGII	1.62	2.50	-	5.00	7.18	0.00	3.26	
NHH 250 BG II	3.78	4.00	-	1.85	4.80	0.00	2.89	
SP 7714 BGII	3.95	2.50	-	0.00	9.89	0.00	3.27	
SBCH-2142	3.45	3.00	-	0.00	1.04	0.00	1.50	
AKHH-2024-11 BG II	3.21	2.50	-	0.00	13.08	0.00	3.76	
GBBHH 5/2022 BG II	3.84	2.50	-	2.38	8.07	0.00	3.36	
AKHH-2022-2 BGII	2.55	1.50	-	0.00	9.99	0.00	2.81	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 10 (d): Initial Evaluation Trial of Intra-Hirsutum Hybrids –Rainfed (IET HXH Hybrids RF) under Unprotected conditions

Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions																									
		CICR, Nagpur										Surat				Bharuch				Nanded							
		FFS		TSV		BLB		Boll rot		GM		BLB		ALS		BLB		ALS		CLS		BLB		GM		TSV	
		PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
53001	Core 105 BG II	22.1	R	8.3	R	16.6	R	36.0	MR	40.8	MR	3.0	R	0.0	DF	2.5	R	6.5	R	8.1	R	4.4	R	13.1	R	0.0	DF
53002	KCH9267 BGII	21.3	R	8.3	R	38.0	MR	38.8	MR	47.2	MR	23.5	R	0.0	DF	2.0	R	2.5	R	0.0	DF	8.6	R	11.4	R	0.0	DF
53003	Neo 1651 BGII	33.3	MR	5.5	R	8.3	R	33.3	MR	46.3	MR	5.5	R	0.0	DF	2.5	R	2.5	R	5.3	R	7.3	R	13.1	R	0.0	DF
53004	DC5108 BGII	18.5	R	8.3	R	8.0	R	33.3	MR	47.2	MR	3.5	R	0.0	DF	1.5	R	4.0	R	6.9	R	2.7	R	12.9	R	0.0	DF
53005	NHH 2214 BG II	28.5	MR	26.8	MR	8.3	R	33.3	MR	46.3	MR	8.5	R	6.5	R	2.0	R	2.5	R	0.0	DF	7.9	R	14.6	R	0.0	DF
53006	US 704 BG II (ZC 2)	18.5	R	5.5	R	22.2	R	27.8	MR	50.8	MS	0.0	DF	0.0	DF	2.5	R	2.5	R	6.8	R	8.6	R	16.7	R	0.0	DF
53007	AKHH 2024-12 BG II	18.5	R	5.5	R	30.4	MR	33.3	MR	43.5	MR	8.5	R	0.0	DF	4.5	R	7.5	R	5.4	R	0.0	DF	15.6	R	0.0	DF
53008	AKHH-2022-1 BG II	28.6	MR	5.5	R	13.8	R	43.5	MR	48.3	MR	5.5	R	0.0	DF	3.5	R	1.5	R	6.6	R	8.3	R	14.0	R	0.0	DF
53009	SBCH-4145	13.0	R	13.8	R	33.2	MR	41.3	MR	53.6	MS	4.5	R	3.0	R	3.5	R	2.0	R	7.3	R	0.0	DF	14.6	R	0.0	DF
53010	KCH9269 BGII	19.4	R	11.0	R	11.0	R	27.8	MR	38.8	MR	4.5	R	0.0	DF	3.0	R	2.5	R	5.8	R	0.0	DF	13.2	R	0.0	DF
53011	ARCH 777 BG II (ZC 1)	29.7	MR	5.5	R	2.8	R	27.8	MR	43.5	MR	0.0	DF	0.0	DF	4.5	R	3.0	R	6.6	R	7.2	R	13.9	R	0.0	DF
53012	SP 7713 BGII	27.7	MR	8.3	R	13.8	R	38.8	MR	47.2	MR	0.0	DF	0.0	DF	2.5	R	2.5	R	8.5	R	7.6	R	14.1	R	0.0	DF
53013	PMCH-114 Bt2	16.6	R	8.3	R	11.0	R	38.0	MR	44.3	MR	3.0	R	4.5	R	3.5	R	2.5	R	6.7	R	6.8	R	11.9	R	0.0	DF
53014	KCH9268 BGII	33.3	MR	2.8	R	11.0	R	38.8	MR	41.6	MR	0.0	DF	0.0	DF	3.0	R	2.5	R	5.4	R	5.4	R	14.0	R	0.0	DF
53015	NHH 250 BG II	30.5	MR	5.5	R	11.0	R	27.8	MR	44.3	MR	0.0	DF	0.0	DF	16.0	R	2.5	R	4.3	R	5.6	R	13.8	R	0.0	DF
53016	SP 7714 BGII	24.9	R	5.5	R	8.3	R	45.5	MR	50.0	MR	0.0	DF	9.5	R	6.5	R	7.5	R	5.3	R	4.8	R	13.2	R	0.0	DF
53017	SBCH-2142	21.3	R	8.3	R	13.8	R	43.5	MR	48.3	MR	0.0	DF	0.0	DF	3.5	R	4.5	R	5.8	R	0.0	DF	13.6	R	0.0	DF
53018	AKHH-2024-11 BG II	22.2	R	5.5	R	11.0	R	36.0	MR	46.3	MR	0.0	DF	0.0	DF	14.5	R	3.5	R	0.0	DF	0.0	DF	14.8	R	2.2	R
53019	GBBHH 5/2022 BG II	24.2	R	8.3	R	13.8	R	33.3	MR	51.9	MS	0.0	DF	0.0	DF	3.5	R	2.5	R	5.3	R	5.9	R	15.7	R	3.3	R
53020	AKHH-2022-2 BGII	38.8	MR	43.5	MR	38.0	MR	43.5	MR	52.8	MS	0.0	DF	0.0	DF	3.5	R	3.5	R	6.3	R	7.1	R	13.3	R	0.0	DF



Advanced Evaluation Trial (I) of Intra-Hirsutum Bt Hybrids - Rainfed

Constitution of Trial

The trial was constituted with three Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	3	53031	KCH 9294 BGII	Kaveri seeds
2	5	53032	SP 7708 BGII	Crystal crop
3	1	53033	US 704 BG II (ZC 2)	
4	4	53034	ARCH 777 BG II (ZC 1)	
5	2	53035	CORE 103 BGII	Coregenes

The trial was conducted in seven locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; ICAR-CICR, Nagpur; ARS, Banswara; Nanded; and Aurangabad (Kaveri).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications

Data recorded:

Biometric evaluation

Plant height (cm) at harvest in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	111.2	142.3	173.8	148.0	159.0	167.5	150.3
2	SP 7708 BGII	114.6	144.8	154.7	144.5	139.5	158.8	142.8
3	US 704 BG II (ZC 2)	93.3	128.6	152.9	148.6	147.3	150.0	136.8
4	ARCH 777 BG II (ZC 1)	119.7	142.0	147.8	149.3	152.5	147.5	143.1
5	CORE 103 BGII	79.4	148.0	169.9	149.3	174.5	160.0	146.9
	CD @ 5%	20.5	NS	9.9	NS	12.9	14.0	
	CV%	12.8	10.3	4.0	3.9	5.4	5.8	



Number of monopodia in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	1.5	1.1	0.3	0.5	1.6	3.0	1.5	1.4
2	SP 7708 BGII	1.6	0.8	0.6	1.1	1.9	2.3	2.0	1.5
3	US 704 BG II (ZC 2)	1.5	0.6	0.6	0.6	1.3	2.5	1.5	1.2
4	ARCH 777 BG II (ZC 1)	1.4	0.7	0.4	1.0	1.5	2.8	2.0	1.4
5	CORE 103 BGII	2.0	0.9	0.8	1.3	2.0	3.0	2.0	1.7
	CD @ 5%	0.3	0.3	0.6	NS	0.1	0.5	0.6	
	CV%	10.9	28.2	19.2	47.9	5.2	13.1	22.7	

Number of sympodia in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	18.2	24.4	28.1	29.1	21.0	35.5	20.8	25.3
2	SP 7708 BGII	19.3	22.3	29.7	30.2	22.7	27.5	20.0	24.5
3	US 704 BG II (ZC 2)	18.6	21.2	28.3	30.4	23.1	31.0	17.8	24.3
4	ARCH 777 BG II (ZC 1)	19.2	23.2	27.1	29.0	24.3	33.8	17.3	24.8
5	CORE 103 BGII	15.6	22.7	27.9	29.5	23.2	34.0	19.3	24.6
	CD @ 5%	NS	NS	3.9	NS	NS	5.3	2.2	
	CV%	14.4	11.7	9.0	6.8		10.6	7.6	



Boll weight (g) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	4.9	4.7	5.1	4.3	5.1	4.6	5.5	4.9
2	SP 7708 BGII	5.2	5.8	6.2	5.7	4.7	6.2	6.1	5.7
3	US 704 BG II (ZC 2)	5.2	5.7	5.3	5.1	5.6	6.3	5.4	5.5
4	ARCH 777 BG II (ZC 1)	5.2	5.3	5.2	5.0	5.5	5.3	5.5	5.3
5	CORE 103 BGII	5.0	5.2	5.1	5.2	5.3	5.3	5.4	5.2
	CD @ 5%	NS	0.4	0.5	0.6	0.3	0.2	0.3	
	CV%	5.7	4.9	6.5	7.3	3.7	2.3	3.5	

Number of bolls / plant in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	28.4	34.2	41.7	34.3	28.7	62.8	63.3	41.9
2	SP 7708 BGII	27.8	25.8	40.6	33.3	27.8	57.5	53.0	38.0
3	US 704 BG II (ZC 2)	22.2	21.6	43.7	34.0	27.2	51.0	51.8	35.9
4	ARCH 777 BG II (ZC 1)	30.5	25.1	41.1	37.6	28.2	62.0	55.5	40.0
5	CORE 103 BGII	30.5	28.7	40.6	35.9	23.3	69.0	49.0	39.6
	CD @ 5%	4.9	7.2	6.4	NS	1.7	5.3	7.4	
	CV%	11.3	9.7	9.9	8.0	4.3	5.7	8.9	



Number of bolls / sq.m. in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	52.5	63.3	131.7	63.5	275.3	87.8	112.4
2	SP 7708 BGII	51.5	47.7	125.5	61.5	262.0	73.6	103.6
3	US 704 BG II (ZC 2)	41.2	40.0	126.5	62.8	233.5	71.9	96.0
4	ARCH 777 BG II (ZC 1)	56.4	46.5	118.1	69.5	273.0	77.1	106.8
5	CORE 103 BGII	56.4	53.0	110.7	66.3	306.0	68.1	110.1
	CD @ 5%	9.0	7.2	20.9	NS	19.1	10.3	
	CV%	11.3	9.7	11.0	8.0	4.6	8.9	

Lint Index (g) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	4.5	5.1	4.9	4.3	4.4	4.0	5.8	4.7
2	SP 7708 BGII	4.3	6.1	5.3	6.1	5.3	5.7	4.8	5.4
3	US 704 BG II (ZC 2)	5.0	6.3	5.2	6.7	4.7	6.6	5.3	5.7
4	ARCH 777 BG II (ZC 1)	5.3	5.8	5.1	5.0	5.7	5.1	5.4	5.3
5	CORE 103 BGII	4.9	5.8	4.7	5.8	7.6	5.2	5.0	5.6
	CD @ 5%	0.6	0.3	0.5		1.3	0.4	0.7	
	CV%	8.0	3.8	6.2		15.8	4.5	8.7	



Seed Index (g) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	9.9	10.1	9.8	9.6	9.4	8.4	10.0	9.6
2	SP 7708 BGII	10.0	12.8	11.2	12.3	11.2	11.4	9.3	11.2
3	US 704 BG II (ZC 2)	10.0	12.1	11.0	13.0	10.0	11.9	9.3	11.0
4	ARCH 777 BG II (ZC 1)	10.8	10.9	10.6	9.6	10.6	9.4	9.8	10.2
5	CORE 103 BGII	10.3	11.1	10.3	10.8	10.7	10.1	9.3	10.4
	CD @ 5%	NS	0.5	0.6		0.1	0.4	0.9	
	CV%	7.3	2.8	3.8		0.5	2.6	6.1	

Ginning outturn (%) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	31.2	33.7	34.4	31.0	31.8	32.5	36.8	33.1
2	SP 7708 BGII	30.2	32.2	32.1	33.0	32.2	33.5	34.1	32.5
3	US 704 BG II (ZC 2)	33.4	34.3	33.0	34.0	32.2	35.8	36.4	34.2
4	ARCH 777 BG II (ZC 1)	33.2	34.6	33.4	34.3	35.1	35.3	35.9	34.5
5	CORE 103 BGII	32.3	34.1	31.1	35.0	35.1	34.0	35.0	33.8
	CD @ 5%	1.10	1.40	1.3		4.2	1.0	1.4	
	CV%	2.3	2.8	2.5		8.2	2.0	2.5	



Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	27.7	28.2	27.3	27.5	27.6	25.6	26.8	27.2
2	SP 7708 BGII	30.1	30.1	29.3	30.6	29.6	27.1	28.6	29.3
3	US 704 BG II (ZC 2)	30.3	28.8	29.2	30.1	29.1	26.5	26.1	28.6
4	ARCH 777 BG II (ZC 1)	29.0	28.9	28.5	30.9	29.5	26.7	27.1	28.7
5	CORE 103 BGII	28.1	28.1	26.2	28.3	28.0	25.4	26.6	27.2

Uniformity index under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	84.0	83.4	86.0	83.0	85.0	82.0	84.0	83.9
2	SP 7708 BGII	84.0	84.6	84.0	86.0	86.0	80.0	84.0	84.1
3	US 704 BG II (ZC 2)	84.0	83.2	84.0	85.0	84.0	81.0	81.0	83.2
4	ARCH 777 BG II (ZC 1)	84.0	85.0	83.0	86.0	85.0	82.0	83.0	84.0
5	CORE 103 BGII	84.0	84.3	82.0	83.0	85.0	81.0	82.0	83.0

Micronaire under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	5.1	5.0	5.0	4.1	5.1	5.2	4.2	4.8
2	SP 7708 BGII	4.8	4.9	4.9	4.7	4.6	4.9	3.7	4.6
3	US 704 BG II (ZC 2)	3.9	4.0	4.0	3.9	4.7	3.8	3.0	3.9
4	ARCH 777 BG II (ZC 1)	4.4	4.8	4.4	4.3	4.2	4.3	3.5	4.3
5	CORE 103 BGII	5.8	6.0	5.8	5.5	5.7	6.2	5.3	5.8



Tenacity under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	29.9	30.4	27.5	29.2	28.6	24.9	28.2	28.4
2	SP 7708 BGII	29.4	30.2	29.5	29.2	27.9	27.5	27.5	28.7
3	US 704 BG II (ZC 2)	29.7	29.5	28.0	27.8	27.8	28.1	26.4	28.2
4	ARCH 777 BG II (ZC 1)	30.5	30.3	30.7	29.8	29.5	25.9	27.8	29.2
5	CORE 103 BGII	28.0	27.4	28.3	26.6	28.0	26.6	25.1	27.1

Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	11.28	8.16	10.06	15.97	8.83	33.10	14.57
2	SP 7708 BGII	5.31	3.11	10.19	9.76	8.17	22.15	9.78
3	US 704 BG II (ZC 2)	4.79	3.93	8.34	7.16	8.64	19.54	8.73
4	ARCH 777 BG II (ZC 1)	10.94	5.70	8.06	14.21	10.44	21.13	11.75
5	CORE 103 BGII	6.28	3.82	6.52	15.69	9.43	23.04	10.80
	CD @ 5%	1.20	1.06	2.40	3.57	1.57	3.31	
	CV%	10.40	14.55	17.84	18.48	11.19	9.02	



Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Aurangabad (Kaveri)	Mean
1	KCH 9294 BGII	13.22	18.77	6.72	8.81	15.58	0.98	10.68
2	SP 7708 BGII	20.31	21.68	4.28	12.83	12.90	3.19	12.53
3	US 704 BG II (ZC 2)	14.22	15.86	5.31	9.98	10.56	1.53	9.58
4	ARCH 777 BG II (ZC 1)	17.09	16.19	6.70	9.27	12.23	1.14	10.44
5	CORE 103 BGII	20.87	19.98	5.57	7.04	14.00	2.32	11.63
	CD @ 5%	3.20	2.93	1.62	1.66	1.64	0.83	
	CV%	12.20	10.72	18.24	11.21	8.17	29.60	

Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of H X H hybrids - I

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean	Rank	% Inc over best check
1	KCH 9294 BGII	24.51	26.93	16.79	24.78	24.84	24.41	34.08	25.19	1	15.0
2	SP 7708 BGII	25.62	24.79	15.47	22.59	21.93	21.07	25.34	22.40	2	2.3
3	US 704 BG II (ZC 2)	19.02	19.79	13.65	17.15	18.53	19.19	21.07	18.34	5	-16.2
4	ARCH 777 BG II (ZC 1)	28.03	21.89	14.75	23.48	20.20	22.67	22.26	21.90	3	0.0
5	CORE 103 BGII	27.15	23.80	12.08	22.73	17.28	23.43	25.36	21.69	4	-1.0
	CD @ 5%	3.80	3.16	3.14	3.42	2.80	2.22	3.72			
	CV%	10.00	9.12	13.88	10.04	9.13	6.51	9.42			



Evaluation under Protected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
KCH 9294 BGII	3.76	4.77	-	7.23	2.18	0.00	3.59	BETL
SP 7708 BGII	3.17	6.85	-	7.34	1.18	0.00	3.71	BETL
US 704 BG II	1.66	4.78	-	8.02	1.12	0.00	3.11	BETL
ARCH 777 BG II	2.16	3.90	-	9.25	1.57	0.00	3.37	BETL
CORE 103 BGII	0.74	3.73	-	8.87	1.12	0.00	2.89	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions - Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	1.42	2.08	0.97	1.35	1.02	3.11	1.66	BETL
SP 7708 BGII	1.69	2.57	1.12	1.51	0.77	6.00	2.28	BETL
US 704 BG II	1.22	2.45	0.95	1.76	0.62	7.33	2.39	BETL
ARCH 777 BG II	0.58	3.05	1.63	1.55	0.83	5.44	2.18	BETL
CORE 103 BGII	0.57	2.92	1.38	1.62	0.75	4.78	2.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG /plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	I	I	I	0	I	II	I	
SP 7708 BGII	I	I	II	0	I	II	I	
US 704 BG II	I	I	I	I	I	III	I	
ARCH 777 BG II	I	I	II	I	I	II	I	
CORE 103 BGII	I	I	II	I	I	II	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	9.40	10.60	1.78	0.53	3.07	0.00	4.23	BETL
SP 7708 BGII	12.38	9.12	1.52	0.69	2.65	0.00	4.39	BETL
US 704 BG II	7.85	8.30	1.73	0.69	1.62	0.00	3.36	BETL
ARCH 777 BG II	7.42	10.45	1.53	0.63	3.16	0.00	3.87	BETL
CORE 103 BGII	7.42	8.55	1.60	0.84	2.41	0.00	3.47	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	1.34	1.07	1.72	0.80	0.00	1.11	1.00	BETL
SP 7708 BGII	1.63	0.97	1.95	0.94	0.00	2.78	1.38	BETL
US 704 BG II	1.03	1.18	2.08	0.97	0.00	3.44	1.45	BETL
ARCH 777 BG II	1.46	1.22	2.07	0.91	0.00	2.22	1.31	BETL
CORE 103 BGII	1.60	0.80	1.33	0.88	0.00	1.44	1.01	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
KCH 9294 BGII	0.30	1.40	-	0.04	1.67	0.16	0.71	
SP 7708 BGII	0.49	2.23	-	0.01	1.22	0.19	0.83	
US 704 BG II	0.31	2.00	-	0.02	1.00	0.17	0.70	
ARCH 777 BG II	0.42	1.47	-	0.02	1.35	0.18	0.69	
CORE 103 BGII	0.58	1.52	-	0.05	1.10	0.22	0.69	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Advanced H X H trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	Spodoptera litura (No./ 5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	0.67	0.33	2.98	0.34	0.08	0.00	0.73	BETL
SP 7708 BGII	0.67	0.25	1.08	0.00	0.08	0.00	0.35	BETL
US 704 BG II	0.55	0.67	1.72	0.34	0.00	0.00	0.54	BETL
ARCH 777 BG II	0.35	0.67	2.41	0.00	0.17	0.00	0.60	BETL
CORE 103 BGII	0.35	0.50	1.95	0.00	0.17	0.00	0.49	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	6.12	9.58	30.83	0.00	0.83	0.00	7.89	BETL
SP 7708 BGII	5.56	6.25	11.67	0.00	0.83	0.00	4.05	BETL
US 704 BG II	3.80	7.08	17.50	3.33	0.83	0.00	5.42	BETL
ARCH 777 BG II	2.11	9.17	25.00	0.00	2.50	0.00	6.46	BETL
CORE 103 BGII	2.11	8.33	20.00	0.00	3.33	0.00	5.63	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	9.24	3.50	32.65	1.85	1.31	0.00	8.09	
SP 7708 BGII	9.29	3.50	12.00	2.56	1.27	0.00	4.77	
US 704 BG II	7.04	4.00	16.45	14.78	0.73	0.00	7.17	
ARCH 777 BG II	4.80	4.50	27.96	10.29	3.08	0.00	8.44	
CORE 103 BGII	4.07	3.00	19.15	1.35	5.06	0.00	5.44	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	5.33	1.88	10.97	0.58	0.63	0.00	3.23	
SP 7708 BGII	4.85	2.38	3.62	0.64	0.60	0.00	2.01	
US 704 BG II	3.44	2.63	5.06	5.87	0.33	0.00	2.89	
ARCH 777 BG II	2.28	3.00	9.12	3.55	1.51	0.00	3.24	
CORE 103 BGII	1.82	1.88	7.20	0.34	2.35	0.00	2.26	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
KCH 9294 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
SP 7708 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
US 704 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 777 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
CORE 103 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 11 (a): Advanced Evaluation Trial – I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																	
			Surat				Bharuch				CICR Nagpur									
			BLB		ALS		BLB		ALS		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
3	53031	KCH 9294 BGII	27.4	MR	0.0	DF	2.5	R	2.3	R	26.8	MR	8.3	R	30.4	MR	24.4	R	33.6	MR
5	53032	SP 7708 BGII	0.0	DF	0.0	DF	6.3	R	3.8	R	21.3	R	0.0	DF	16.7	R	23.0	R	46.8	MR
1	53033	US 704 BG II (ZC 2)	0.0	DF	0.0	DF	2.8	R	5.3	R	26.3	MR	0.0	DF	20.4	R	28.0	MR	42.5	MR
4	53034	ARCH 777 BG II (ZC 1)	0.0	DF	2.3	R	2.4	R	2.8	R	27.2	MR	11.1	R	11.1	R	26.3	MR	41.3	MR
2	53035	CORE 103 BGII	0.0	DF	3.6	R	8.0	R	6.1	R	30.3	MR	13.8	R	19.4	R	32.2	MR	44.3	MR

Table 11 (b): Advanced Evaluation Trial – I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions											
			PDKV, Akola						Nanded					
			BLB		GM		MLS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
3	53031	KCH 9294 BGII	25	R	21.3	R	21.3	R	2.2	R	5.3	R	6.5	R
5	53032	SP 7708 BGII	6.3	R	20.0	R	25.0	R	2.8	R	4.2	R	5.9	R
1	53033	US 704 BG II (ZC 2)	7.5	R	26.3	MR	31.3	MR	1.0	R	0.0	DF	5.4	R
4	53034	ARCH 777 BG II (ZC 1)	5	R	23.8	R	22.5	R	5.2	R	2.7	R	6.3	R
2	53035	CORE 103 BGII	10	R	25.0	R	23.8	R	5.7	R	2.8	R	6.4	R



Table 11 (c): Advanced Evaluation Trial – I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Protected and Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions								Average PDI & Disease Reaction (DR): Unprotected conditions							
			Kaveri, Aurangabad								Kaveri, Aurangabad							
			ALS		GM		BLB		TSV		ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
3	53031	KCH 9294 BGII	4.9	R	6.1	R	4.1	R	0.6	R	13.0	R	15.1	R	6.5	R	2.1	R
5	53032	SP 7708 BGII	8.2	R	12.5	R	7.9	R	1.4	R	19.2	R	25.4	MR	15.1	R	5.0	R
1	53033	US 704 BG II (ZC 2)	10.5	R	9.4	R	9.1	R	2.6	R	26.6	MR	20.5	R	14.6	R	9.4	R
4	53034	ARCH 777 BG II (ZC 1)	7.6	R	8.2	R	8.9	R	3.1	R	14.1	R	15.7	R	15.7	R	11.4	R
2	53035	CORE 103 BGII	8.1	R	8.7	R	10.0	R	2.3	R	18.1	R	17.3	R	17.3	R	8.3	R



Evaluation under Unprotected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	6.13	10.87	-	5.36	9.64	0.00	6.40	BETL
SP 7708 BGII	5.00	15.53	-	4.18	4.96	0.00	5.93	BETL
US 704 BG II	2.60	10.53	-	3.07	4.42	0.00	4.12	BETL
ARCH 777 BG II	2.93	6.93	-	2.53	6.36	0.00	3.75	BETL
CORE 103 BGII	1.53	5.93	-	4.31	4.91	0.00	3.34	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions - Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	2.07	2.47	-	1.04	3.13	3.78	2.50	BETL
SP 7708 BGII	2.20	3.67	-	1.38	2.67	6.56	3.29	BETL
US 704 BG II	1.80	3.80	-	1.11	1.93	8.11	3.35	BETL
ARCH 777 BG II	1.13	4.93	-	2.09	2.60	5.67	3.28	BETL
CORE 103 BGII	0.87	4.67	-	1.24	2.33	5.00	2.82	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG /plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	I	I	-	I	II	II	I	
SP 7708 BGII	I	I	-	I	II	III	II	
US 704 BG II	I	I	-	0	II	III	I	
ARCH 777 BG II	I	II	-	I	II	II	II	
CORE 103 BGII	I	II	-	I	II	II	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	13.80	16.20	-	0.40	9.53	0.00	7.99	BETL
SP 7708 BGII	16.07	11.93	-	0.60	8.33	0.00	7.39	BETL
US 704 BG II	10.20	12.73	-	0.67	5.13	0.00	5.75	BETL
ARCH 777 BG II	11.33	18.60	-	0.47	10.07	0.00	8.09	BETL
CORE 103 BGII	9.33	13.13	-	0.73	7.60	0.00	6.16	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	2.07	1.40	-	0.80	0.33	1.55	1.23	BETL
SP 7708 BGII	2.00	0.87	-	0.82	0.62	3.33	1.53	BETL
US 704 BG II	1.27	1.47	-	0.69	0.00	4.22	1.53	BETL
ARCH 777 BG II	1.93	1.33	-	0.89	0.00	2.78	1.39	BETL
CORE 103 BGII	2.13	0.93	-	0.80	0.00	2.33	1.24	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./Plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	0.60	1.20	-	0.11	3.48	0.19	1.12	
SP 7708 BGII	0.60	2.80	-	0.00	2.47	0.21	1.22	
US 704 BG II	0.60	2.13	-	0.07	2.08	0.20	1.02	
ARCH 777 BG II	0.47	1.60	-	0.02	2.73	0.21	1.01	
CORE 103 BGII	0.40	1.87	-	0.02	2.27	0.24	0.96	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	Spodoptera litura (No./ 5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CORE 103 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	1.00	0.67	-	0.00	0.67	0.00	0.47	BETL
SP 7708 BGII	1.00	0.67	-	0.00	0.67	0.00	0.47	BETL
US 704 BG II	0.67	1.00	-	1.00	0.33	0.00	0.60	BETL
ARCH 777 BG II	0.67	1.00	-	1.00	1.33	0.00	0.80	BETL
CORE 103 BGII	0.67	0.67	-	0.00	2.00	0.00	0.67	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7708 BGII	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
US 704 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II	0.00	0.00	-	0.00	1.23	0.00	0.25	BETL
CORE 103 BGII	0.00	0.00	-	0.00	1.60	0.00	0.32	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	13.33	6.67	-	10.00	6.67	0.00	7.33	BETL
SP 7708 BGII	10.00	8.33	-	0.00	6.67	0.00	5.00	BETL
US 704 BG II	6.67	11.67	-	20.00	3.33	0.00	8.33	BETL
ARCH 777 BG II	6.67	10.00	-	10.00	16.67	0.00	8.67	BETL
CORE 103 BGII	6.67	8.33	-	0.00	26.67	0.00	8.33	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	9.78	4.00	-	3.39	4.07	0.00	4.25	
SP 7708 BGII	8.31	4.00	-	5.26	4.12	0.00	4.34	
US 704 BG II	7.05	4.00	-	22.22	2.24	0.00	7.10	
ARCH 777 BG II	5.65	6.00	-	5.66	9.83	0.00	5.43	
CORE 103 BGII	4.82	4.00	-	2.22	15.98	0.00	5.40	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
KCH 9294 BGII	5.05	2.50	-	1.69	2.01	0.00	2.25	
SP 7708 BGII	5.00	2.00	-	3.29	1.95	0.00	2.45	
US 704 BG II	3.87	2.50	-	12.50	1.03	0.00	3.98	
ARCH 777 BG II	2.63	3.50	-	2.36	4.94	0.00	2.69	
CORE 103 BGII	2.05	1.50	-	1.11	7.70	0.00	2.47	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 11 (d): Advanced Evaluation Trial – I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Unprotected condition

Code -I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions																							
			Surat				Bharuch				CICR, Nagpur										Nanded					
			BLB		ALS		BLB		ALS		FFS		TSV		BLB		Boll rot		GM		CLS		BLB		GM	
			PD I	D R	PD I	D R	PD I	D R	PD I	D R	PDI	DR	PDI	D R	PDI	DR	PDI	DR	PDI	DR	PD I	D R	PDI	D R	PDI	D R
3	53031	KCH 9294 BGII	0.0	DF	0.0	DF	1.5	R	1.5	R	33.3	M R	16.6	R	33.3	M R	36.0	M R	41.6	M R	5.3	R	11.4	R	6.7	DF
5	53032	SP 7708 BGII	0.0	DF	0.0	DF	5.5	R	4.0	R	38.8	M R	11.0	R	27.7	M R	36.0	M R	52.8	MS	6.5	R	11.0	R	7.5	DF
1	53033	US 704 BG II (ZC 2)	0.0	DF	0.0	DF	2.0	R	5.5	R	31.7	M R	8.3	R	27.7	M R	38.8	M R	49.9	M R	2.7	R	0.0	DF	7.8	DF
4	53034	ARCH 777 BG II (ZC 1)	0.0	DF	0.0	DF	1.5	R	2.5	R	36.0	M R	19.3	R	22.1	R	40.8	M R	47.2	M R	7.5	R	5.8	R	9.2	DF
2	53035	CORE 103 BGII	0.0	DF	0.0	DF	7.5	R	5.5	R	38.8	M R	22.2	R	27.7	M R	43.5	M R	51.8	MS	8.9	R	8.2	R	0.0	DF



Agronomic Evaluation

Bhawanipatna (NCS 9954 Bt2)

The results of agronomic requirement studies conducted under rainfed conditions at Bhawanipatna revealed that the effect of spacing on seed cotton yield was not significant (Table 19). However, nutrient levels had a significant effect on yield, with N3 producing the highest mean seed cotton yield (1956 kg/ha), followed by N2 (1757 kg/ha), while the lowest yield was recorded under N1 (1555 kg/ha). The interaction between spacing and nutrient levels was not significant.

Table 19. Seed cotton yield (kg/ha) of NCS 9954 Bt2 as influenced by spacing levels and nutrient levels at Bhawanipatna

Treatments	S ₁ - 90 x 15 cm	S ₂ - 75x 15 cm	S ₃ - 60 x 15 cm	Mean (Nutrient)	ANOVA	SE d	CD (5%)
N ₁ : 75 % NPK	1579	1476	1609	1555	Spacing	83	NS
N ₂ : 100 % NPK	1599	1723	1949	1757	Nutrient	83	177
N ₃ : 125 % NPK	1887	1928	2052	1956	S X N	144	NS
Mean (spacing)	1688	1709	1870				

Basic parameters: pH: 6.2, Available N: 132 kg/ha, Available P₂O₅: 38.6 kg/ha, Available K₂O: 248 kg/ha, Recommended nutrients: 150:60:60 kg NPK/ha, Genotype: NCS 9954 Bt2, Environment: Rainfed, Total rainfall during cropping period: 1270.9 mm

Bhawanipatna (PCH 7533 Bt2)

The results of agronomic requirement studies conducted at Bhawanipatna under rainfed conditions revealed that spacing and nutrient levels significantly influenced seed cotton yield (Table 20). Among spacing levels, significantly higher yield was recorded under S2 (75 cm × 15 cm), followed by S3 (60 cm × 15 cm), while the lowest yield was observed under S1 (90 cm × 15 cm). Among nutrient levels, significantly higher yield was recorded under N3 (125% NPK), followed by N2 (100% NPK), whereas the lowest yield was under N1 (75% NPK). Interaction between spacing and nutrient levels was not significant.

Table 20. Seed cotton yield (kg/ha) of PCH 7533 Bt2 as influenced by Spacing levels and Nutrient levels at Bhawanipatna

Treatments	N ₁ : 75 % NPK	N ₂ : 100 % NPK	N ₃ : 125 % NPK	Mean (Spacing)	ANOVA	SE d	CD (5%)
S ₁ - 90 x 15 cm	1970	2093	2144	2069	Nutrient	72	153
S ₂ - 75 x 15 cm	2175	2381	2433	2330	Spacing	72	153
S ₃ - 60 x 15 cm	2144	2237	2402	2261	S X N	124	NS
Mean (Nutrient)	2096	2237	2326				

Basic parameters: pH: 6.2, Available N: 132 kg/ha, Available P₂O₅: 38.6 kg/ha, Available K₂O: 248 kg/ha, Recommended nutrients: 150:60:60 kg NPK/ha, Genotype: PCH 7533 Bt2, Environment: Rainfed, Total rainfall during cropping period: 1270.9 mm



Bhawanipatna (RCH 1119BGII)

The results of agronomic requirement studies conducted at Bhawanipatna under rainfed conditions revealed that spacing levels showed non-significant effect on seed cotton yield (Table 21). However, nutrient levels resulted in a significant effect on yield, with N3 (125% NPK) recording the highest mean yield (2409 kg/ha), followed by N2 (2223 kg/ha), and the lowest yield under N1 (2144 kg/ha). Interaction between spacing and nutrient levels was not significant.

Table 21. Seed cotton yield (kg/ha) as of RCH 1119BGII influenced by Spacing levels and Nutrient levels at Bhawanipatna.

Treatments	N ₁ : 75 % NPK	N ₂ : 100 % NPK	N ₃ : 125 % NPK	Mean (Spacing)	ANOVA	SE d	CD (5%)
S ₁ - 90 x 15 cm	2103	2175	2340	2206	Nutrient	81	NS
S ₂ - 75 x 15 cm	2175	2216	2340	2244	Spacing	81	173
S ₃ - 60 x 15 cm	2155	2278	2546	2326	S X N	140	NS
Mean (Nutrient)	2144	2223	2409				

Basic parameters: pH: 6.2, Available N: 132 kg/ha, Available P₂O₅: 38.6 kg/ha, Available K₂O: 248 kg/ha, Recommended nutrients: 150:60:60 kg NPK/ha, Genotype: RCH 1119BGII, Environment: Rainfed, Total rainfall during cropping period: 1270.9 mm

Bhawanipatna (US 751 BGII)

The results of agronomic requirement studies conducted under rainfed conditions revealed that spacing levels resulted in a significant effect on seed cotton yield (Table 22), with S3 (60 cm × 15 cm; 2402 kg/ha) recording higher yield, followed by S2 (75 cm × 15 cm; 2192 kg/ha), and the lowest yield under S1 (90 cm × 15 cm; 1963 kg/ha). Nutrient levels also resulted in a significant effect, N3 (125% NPK) recording significantly higher yield (2330 kg/ha) compared with N2 (2189 kg/ha). Interaction between spacing and nutrient levels was not significant.

Table 22. Seed cotton yield (kg/ha) of US 751 BGII as influenced by Spacing levels and Nutrient levels at Bhawanipatna

Treatments	N ₁ : 75 % NPK	N ₂ : 100 % NPK	N ₃ : 125 % NPK	Mean (Spacing)	ANOVA	SE d	CD (5%)
S ₁ - 90 x 15 cm	1805	1928	2155	1963	Nutrient	81	172
S ₂ - 75 x 15 cm	2134	2196	2247	2192	Spacing	81	172
S ₃ - 60 x 15 cm	2175	2443	2587	2402	S X N	140	NS
Mean (Nutrient)	2038	2189	2330				

Basic parameters: pH: 6.2, Available N: 132 kg/ha, Available P₂O₅: 38.6 kg/ha, Available K₂O: 248 kg/ha, Recommended nutrients: 150:60:60 kg NPK/ha, Genotype: US 751 BGII, Environment: Rainfed, Total rainfall during cropping period: 1270.9 mm



Advanced Evaluation Trial of Intra-Hirsutum Bt Hybrids (II) - Rainfed

Constitution of Trial

The trial was constituted with nine Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	11	53041	AKHH 2022-1 (BGI)	PDKV, Akola
2	4	53042	AKHH 2022-2 (BGI)	PDKV, Akola
3	1	53043	KCH 9227 BGII	Kaveri Seed Company Ltd
4	2	53044	Jadoo BG II (ZC1)	
5	9	53045	RCH 1060 BG II	Rasi Seed (P) Ltd
6	3	53046	BIO 6720 BGII	Bioseeds Research India
7	10	53047	DACH 64C64 BGII	Dharti seeds
8	6	53048	MRC 7347BG II (ZC2)	
9	8	53049	Core 101	Coregenes
10	5	53050	KCH 9226 BGII	Kaveri Seed Company Ltd
11	7	53051	RCH 1039 BGII	Rasi Seed (P) Ltd

The trial was conducted in nine locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; ICAR-CICR, Nagpur; ARS, Banswara; Nanded; Dongargaon (Ankur); Aurangabad (Kaveri); and Badnapur (Bioseed).

Spacing: Recommended spacing for the hybrid has been followed.

Number of rows: 4 rows of 6 meters per entry with four replications

Data recorded:



Biometric evaluation

Plant height (cm) at harvest in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	106.8	125.5	139.0	140.6	109.0	128.3	143.3	143.0	129.4
2	AKHH 2022-2 (BGI)	135.0	117.9	130.8	135.3	111.3	128.7	133.3	123.8	127.0
3	KCH 9227 BGII	126.0	139.7	141.5	148.0	141.4	145.7	173.3	138.2	144.2
4	Jadoo BG II (ZC1)	160.0	159.7	176.0	160.3	139.7	155.7	166.7	160.7	159.9
5	RCH 1060 BG II	138.8	150.1	164.3	139.9	133.9	150.7	160.0	139.4	147.1
6	BIO 6720 BGII	172.8	166.4	175.7	163.5	130.8	150.3	173.3	159.3	161.5
7	DACH 64C64 BGII	147.5	150.1	140.6	131.3	113.9	133.7	145.0	131.9	136.8
8	MRC 7347BG II (ZC2)	121.8	149.7	131.3	133.6	111.9	137.0	140.0	133.4	132.3
9	Core 101	162.3	177.1	154.7	150.7	134.3	161.7	148.3	150.0	154.9
10	KCH 9226 BGII	149.0	158.1	161.0	137.1	132.3	147.0	165.0	144.5	149.3
11	RCH 1039 BGII	137.0	144.7	151.1	140.1	116.0	140.7	143.3	128.1	137.6
	CD @ 5%	9.2	7.9	15.0	11.2	5.8	15.9	15.2	4.9	
	CV%	3.8	3.2	5.8	4.6	12.3	6.5	5.8	2.1	



Number of monopodia in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	0.9	1.5	0.3	0.9	1.8	2.3	1.3	1.0	2.1	1.3
2	AKHH 2022-2 (BGI)	1.0	1.3	0.2	1.1	2.4	3.0	1.7	1.3	2.1	1.6
3	KCH 9227 BGII	0.9	0.6	0.6	0.7	1.5	2.3	2.0	2.0	2.5	1.5
4	Jadoo BG II (ZC1)	0.8	1.6	0.7	0.8	1.7	3.0	1.3	1.0	2.5	1.5
5	RCH 1060 BG II	1.0	1.9	0.7	0.5	2.1	2.0	1.7	1.0	2.3	1.5
6	BIO 6720 BGII	0.8	1.5	0.8	0.9	2.0	2.7	2.0	1.0	2.1	1.5
7	DACH 64C64 BGII	1.0	1.3	0.6	0.7	1.7	2.3	1.7	1.3	1.6	1.4
8	MRC 7347BG II (ZC2)	0.8	2.3	0.7	1.4	2.2	2.7	2.3	2.0	3.2	2.0
9	Core 101	1.2	2.1	0.7	0.9	2.4	3.0	2.3	1.0	2.7	1.8
10	KCH 9226 BGII	1.0	1.3	0.3	0.8	2.4	3.0	1.7	2.0	2.1	1.6
11	RCH 1039 BGII	1.0	1.3	0.7	1.5	2.4	3.0	2.0	1.0	3.3	1.8
	CD @ 5%	0.3	0.4	0.5	NS	0.5	0.7		0.4	0.5	
	CV%	15.8	17.2	18.1	61.9	14.5	14.3		18.9	12.4	



Number of sympodia in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	21.6	23.0	26.4	28.1	20.3	40.0	24.7	16.0	16.4	24.1
2	AKHH 2022-2 (BGI)	22.6	21.9	25.1	27.1	22.0	31.0	22.7	17.7	15.1	22.8
3	KCH 9227 BGII	23.3	22.3	27.9	28.9	24.5	43.0	24.7	19.3	17.1	25.7
4	Jadoo BG II (ZC1)	19.8	25.0	30.3	28.3	23.9	47.0	24.7	20.3	18.3	26.4
5	RCH 1060 BG II	22.3	24.8	29.6	27.0	22.8	44.3	25.3	18.0	17.0	25.7
6	BIO 6720 BGII	20.2	26.1	33.9	30.7	23.5	43.7	26.0	19.7	20.0	27.1
7	DACH 64C64 BGII	21.0	25.7	26.4	27.5	21.7	39.0	23.0	17.0	15.1	24.0
8	MRC 7347BG II (ZC2)	17.2	26.1	26.3	27.1	21.8	47.7	23.0	16.7	17.1	24.8
9	Core 101	22.1	28.3	28.7	29.3	24.1	56.7	26.7	19.0	15.8	27.9
10	KCH 9226 BGII	26.3	24.7	31.3	27.3	24.1	43.0	25.3	19.3	18.3	26.6
11	RCH 1039 BGII	20.6	22.5	28.8	29.9	23.3	42.3	25.0	16.0	15.1	24.8
	CD @ 5%	3.3	5.3	3.1	NS	1.0	6.7		3.1	1.9	
	CV%	9.0	13.1	6.3	5.5	2.5	9.1		10.1	6.8	



Boll weight (g) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	4.8	4.7	5.4	4.7	5.6	4.7	5.0	5.4	5.5	5.1
2	AKHH 2022-2 (BGI)	4.4	4.8	5.3	4.7	5.5	4.5	5.0	5.6	5.2	5.0
3	KCH 9227 BGII	4.6	4.5	5.2	4.5	5.2	4.7	5.3	5.6	4.8	4.9
4	Jadoo BG II (ZC1)	4.7	5.1	5.5	4.8	5.1	4.2	5.5	5.2	5.2	5.0
5	RCH 1060 BG II	5.2	5.7	5.3	4.7	4.8	4.7	5.9	4.9	5.5	5.2
6	BIO 6720 BGII	5.1	5.4	6.2	5.1	5.0	4.7	6.2	5.2	5.6	5.4
7	DACH 64C64 BGII	5.1	5.8	5.1	5.3	5.7	5.3	6.5	5.9	5.9	5.6
8	MRC 7347BG II (ZC2)	4.5	4.4	5.1	4.5	4.2	4.0	5.0	4.5	4.9	4.6
9	Core 101	5.0	5.5	5.1	5.2	3.6	4.4	5.0	5.1	5.4	4.9
10	KCH 9226 BGII	4.3	4.4	5.0	4.6	6.3	4.1	5.3	5.7	5.2	5.0
11	RCH 1039 BGII	4.9	5.2	5.3	4.7	5.8	4.5	5.6	5.0	5.3	5.1
	CD @ 5%	0.3	0.6	0.5	0.4	0.3	0.2		0.5	0.4	
	CV%	4.1	6.9	5.6	5.4	3.3	2.2		5.6	4.54	



Number of bolls / plant in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	24.4	38.7	36.1	33.5	22.9	32.3	33.7	45.0	31.57	33.1
2	AKHH 2022-2 (BGI)	26.5	36.9	32.9	31.2	26.6	37.0	39.3	44.7	29.43	33.8
3	KCH 9227 BGII	28.1	34.9	38.1	35.1	28.5	45.0	43.0	59.3	31.53	38.2
4	Jadoo BG II (ZC1)	21.9	33.5	37.2	39.2	24.6	40.7	37.7	43.3	28.43	34.1
5	RCH 1060 BG II	24.4	36.8	37.7	34.0	30.2	47.3	40.0	50.0	30.33	36.7
6	BIO 6720 BGII	22.0	36.1	43.6	35.6	24.4	42.7	36.7	48.0	34.33	35.9
7	DACH 64C64 BGII	23.5	32.9	32.3	29.7	22.1	28.7	41.3	42.7	24.80	30.9
8	MRC 7347BG II (ZC2)	18.9	38.0	29.1	34.3	21.1	33.7	51.7	45.0	28.33	33.3
9	Core 101	25.1	30.4	36.9	34.3	23.1	43.7	30.0	39.7	29.80	32.6
10	KCH 9226 BGII	33.3	43.1	38.0	34.9	23.1	45.3	43.0	61.3	34.97	39.7
11	RCH 1039 BGII	23.2	36.2	41.3	41.9	28.3	44.3	44.3	51.7	29.43	37.8
	CD @ 5%	4.8	4.8	5.1	NS	5.3	6.3		6.4	4.84	
	CV%	11.3	7.9	8.2	12.1	12.5	9.3		7.7	9.62	



Number of bolls / sq.m. in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	45.3	71.6	103.1	61.9	168.0	62.5	58.4	81.5
2	AKHH 2022-2 (BGI)	49.1	68.3	82.2	57.7	186.3	62.0	54.5	80.0
3	KCH 9227 BGII	52.0	64.5	128.1	64.9	192.0	82.4	58.3	91.7
4	Jadoo BG II (ZC1)	40.5	62.0	99.4	72.5	229.3	60.2	52.6	88.1
5	RCH 1060 BG II	45.3	68.0	109.4	62.9	252.0	69.4	56.1	94.7
6	BIO 6720 BGII	40.8	66.8	123.4	65.9	225.3	66.7	63.5	93.2
7	DACH 64C64 BGII	43.6	60.9	101.3	55.0	151.7	59.3	45.9	74.0
8	MRC 7347BG II (ZC2)	35.0	70.3	73.4	63.5	208.3	62.5	52.4	80.8
9	Core 101	46.6	56.3	107.1	63.4	235.0	55.1	55.1	88.4
10	KCH 9226 BGII	61.6	79.7	101.0	64.6	240.3	85.2	64.7	99.6
11	RCH 1039 BGII	42.9	66.9	116.4	77.5	223.3	71.8	54.5	93.3
	CD @ 5%	8.8	8.8	13.5	NS	21.5	8.8	9.0	
	CV%	11.3	7.9	7.6	12.1	6.0	7.7	9.6	



Lint Index (g) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	5.5	6.1	5.6	5.7	6.2	4.0	5.5	6.4	5.6
2	AKHH 2022-2 (BGI)	4.7	5.5	5.9	5.4	5.6	5.4	4.8	5.7	5.4
3	KCH 9227 BGII	5.1	4.8	5.8	4.4	4.6	4.4	5.3	5.1	4.9
4	Jadoo BG II (ZC1)	5.1	5.4	5.0	5.0	5.1	6.0	5.3	5.7	5.3
5	RCH 1060 BG II	5.3	6.2	5.4	5.6	5.4	5.1	5.8	6.2	5.6
6	BIO 6720 BGII	5.4	5.5	5.2	5.2	5.7	5.0	5.3	6.3	5.5
7	DACH 64C64 BGII	5.9	6.4	5.1	6.1	6.1	6.3	5.1	6.9	6.0
8	MRC 7347BG II (ZC2)	4.4	4.8	4.7	4.7	4.6	5.8	4.5	4.8	4.8
9	Core 101	5.1	6.3	6.0	5.2	5.4	5.2	5.0	6.7	5.6
10	KCH 9226 BGII	5.1	5.1	4.0	4.2	5.0	4.4	5.4	5.2	4.8
11	RCH 1039 BGII	4.8	6.1	5.2	5.4	5.9	5.6	5.3	6.8	5.6
	CD @ 5%	0.3	0.5	0.4		0.1	0.4	0.5	0.3	
	CV%	3.6	4.8	4.0		1.6	4.1	5.2	2.8	



Seed Index (g) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	10.1	9.8	9.5	10.0	10.7	7.0	10.5	9.3	9.9	9.6
2	AKHH 2022-2 (BGI)	10.3	9.7	10.5	10.0	10.4	9.4	10.4	8.3	9.0	9.8
3	KCH 9227 BGII	9.8	9.3	9.9	9.2	10.2	8.1	11.0	9.0	10.9	9.7
4	Jadoo BG II (ZC1)	11.1	10.2	9.7	10.6	10.0	10.0	12.1	9.7	11.1	10.5
5	RCH 1060 BG II	11.3	10.8	9.5	11.0	10.6	9.6	12.5	9.7	11.0	10.7
6	BIO 6720 BGII	11.1	10.5	11.0	11.0	11.4	9.9	12.8	9.0	10.4	10.8
7	DACH 64C64 BGII	11.8	11.8	10.4	12.0	11.4	11.0	12.3	8.7	12.0	11.3
8	MRC 7347BG II (ZC2)	9.5	9.7	9.0	10.1	10.3	10.1	10.8	9.0	10.4	9.9
9	Core 101	10.4	11.7	8.9	9.9	10.2	10.0	11.4	8.3	12.1	10.3
10	KCH 9226 BGII	9.5	9.5	9.4	9.1	10.6	9.2	11.4	9.3	10.1	9.8
11	RCH 1039 BGII	10.8	10.0	10.6	10.7	11.2	9.9	11.8	9.0	11.1	10.6
	CD @ 5%	0.6	0.9	0.8		0.1	0.4		0.8	0.5	
	CV%	3.5	5.5	4.5		0.7	2.4		5.1	2.7	



Ginning outturn (%) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	35.5	38.4	36.6	36.3	37.3	36.3	36.5	37.2	39.44	37.1
2	AKHH 2022-2 (BGI)	31.5	36.3	33.8	35.0	36.4	36.7	37.0	36.5	38.69	35.8
3	KCH 9227 BGII	34.1	33.9	35.2	32.3	35.8	35.0	30.8	37.0	32.06	34.0
4	Jadoo BG II (ZC1)	31.4	34.7	34.9	32.0	33.7	37.3	31.2	35.3	33.83	33.8
5	RCH 1060 BG II	32.0	36.4	34.6	33.7	34.4	34.7	32.6	37.4	36.19	34.7
6	BIO 6720 BGII	32.7	34.4	33.1	32.0	33.2	33.7	30.8	37.1	37.60	33.8
7	DACH 64C64 BGII	33.4	35.1	34.5	33.7	35.0	36.3	34.7	37.0	36.62	35.1
8	MRC 7347BG II (ZC2)	31.7	33.5	32.1	32.0	30.7	36.7	31.2	33.2	31.83	32.5
9	Core 101	32.9	35.2	35.5	34.3	34.6	34.3	33.2	37.4	35.73	34.8
10	KCH 9226 BGII	34.8	35.0	35.5	31.7	31.9	32.3	31.2	36.8	33.92	33.7
11	RCH 1039 BGII	30.8	38.0	35.0	33.7	34.4	36.0	34.5	37.2	37.89	35.3
	CD @ 5%	0.8	1.5	1.9		1.4	1.2		1.1	0.87	
	CV%	2.0	2.6	3.2		2.4	2.0		1.7	1.47	



Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	30.9	30.2	30.1	30.3	29.5	28.9	27.9	27.6	29.7	29.5
2	AKHH 2022-2 (BGI)	29.7	29.0	30.1	29.7	30.3	27.3	28.2	27.2	29.4	29.0
3	KCH 9227 BGII	28.7	28.2	27.1	24.7	28.3	27.2	27.5	25.1	28.2	27.2
4	Jadoo BG II (ZC1)	32.1	32.6	30.4	31.7	31.4	30.2	30.9	29.1	31.9	31.1
5	RCH 1060 BG II	29.3	29.7	28.4	29.4	26.5	27.2	28.5	25.8	28.0	28.1
6	BIO 6720 BGII	29.5	29.3	28.5	29.5	28.7	27.2	28.4	26.8	29.5	28.6
7	DACH 64C64 BGII	30.9	30.0	28.7	30.4	27.9	28.8	28.8	28.4	29.9	29.3
8	MRC 7347BG II (ZC2)	31.5	29.7	30.6	29.9	30.0	26.3	30.1	28.1	30.5	29.6
9	Core 101	27.2	27.3	26.3	28.2	27.6	28.9	26.1	26.6	28.8	27.4
10	KCH 9226 BGII	28.3	27.7	27.1	28.4	28.4	26.6	27.1	26.5	27.4	27.5
11	RCH 1039 BGII	28.8	28.1	28.1	28.5	27.9	27.6	28.0	25.3	28.3	27.8



Uniformity index under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	84.0	85.0	86.0	84.0	84.0	82.0	82.0	85.0	84.0
2	AKHH 2022-2 (BGI)	84.0	84.3	85.0	85.0	84.0	83.0	82.0	85.0	84.0
3	KCH 9227 BGII	85.0	84.8	86.0	83.0	85.0	83.0	81.0	85.0	84.1
4	Jadoo BG II (ZC1)	83.0	84.0	86.0	86.0	83.0	83.0	80.0	84.0	83.6
5	RCH 1060 BG II	84.0	84.6	85.0	85.0	83.0	84.0	81.0	83.0	83.7
6	BIO 6720 BGII	85.0	84.9	85.0	86.0	83.0	84.0	81.0	85.0	84.2
7	DACH 64C64 BGII	85.0	84.5	85.0	86.0	83.0	82.0	82.0	86.0	84.2
8	MRC 7347BG II (ZC2)	84.0	83.3	86.0	85.0	82.0	82.0	81.0	85.0	83.5
9	Core 101	83.0	83.5	85.0	83.0	82.0	83.0	80.0	85.0	83.1
10	KCH 9226 BGII	85.0	84.0	86.0	84.0	83.0	84.0	82.0	83.0	83.9
11	RCH 1039 BGII	85.0	84.9	84.0	86.0	84.0	84.0	80.0	85.0	84.1



Micronaire under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	4.8	4.9	5.1	4.8	4.8	4.8	4.8	4.2	4.5	4.7
2	AKHH 2022-2 (BGI)	4.8	4.4	5.1	4.6	4.5	4.8	4.6	4.0	3.8	4.5
3	KCH 9227 BGII	5.2	4.9	5.2	4.8	4.6	5.1	4.9	4.4	4.2	4.8
4	Jadoo BG II (ZC1)	5.0	5.0	5.2	4.6	4.9	5.3	5.0	4.4	4.5	4.9
5	RCH 1060 BG II	5.1	4.6	5.3	5.0	4.9	5.3	5.0	4.2	4.6	4.9
6	BIO 6720 BGII	4.4	4.1	4.6	4.3	4.3	4.4	4.1	3.8	3.9	4.2
7	DACH 64C64 BGII	5.0	5.0	5.3	5.3	5.3	5.3	5.0	4.6	4.5	5.0
8	MRC 7347BG II (ZC2)	4.2	3.8	4.7	5.0	4.8	6.1	4.5	4.1	3.6	4.5
9	Core 101	5.6	5.8	6.0	6.0	5.2	4.9	5.6	5.2	5.8	5.6
10	KCH 9226 BGII	5.2	4.9	5.2	5.1	4.9	4.8	4.8	4.3	4.5	4.9
11	RCH 1039 BGII	5.2	5.5	5.6	5.1	5.1	5.2	5.3	4.8	4.9	5.2



Tenacity under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	31.5	31.8	31.3	27.7	28.9	29.4	29.2	27.9	30.7	29.8
2	AKHH 2022-2 (BGI)	31.6	31.4	32.8	29.2	30.4	27.7	29.3	29.1	32.2	30.4
3	KCH 9227 BGII	30.9	30.6	29.6	28.5	29.8	29.5	31.2	26.9	30.8	29.8
4	Jadoo BG II (ZC1)	32.6	32.2	31.7	28.8	29.7	31.4	29.9	28.8	32.9	30.9
5	RCH 1060 BG II	30.1	30.3	30.4	27.8	28.2	29.3	28.9	26.4	30.7	29.1
6	BIO 6720 BGII	28.2	30.3	28.4	28.1	27.5	28.5	26.7	26.6	29.4	28.2
7	DACH 64C64 BGII	31.1	31.3	31.3	28.6	27.6	29.2	28.3	27.3	30.5	29.5
8	MRC 7347BG II (ZC2)	33.5	31.4	31.2	26.9	28.8	27.2	30.5	27.6	32.4	29.9
9	Core 101	28.9	29.8	25.6	26.2	26.6	28.9	27.1	25.9	29.7	27.6
10	KCH 9226 BGII	30.4	29.8	27.0	28.4	29.6	28.4	30.5	28.2	29.6	29.1
11	RCH 1039 BGII	30.4	30.2	32.5	29.1	28.3	29.2	30.2	26.7	30.5	29.7



Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	9.24	14.40	6.11	18.46	15.63	19.91	21.13	10.06	14.37
2	AKHH 2022-2 (BGI)	8.80	12.69	7.90	17.17	15.25	20.35	20.69	14.18	14.63
3	KCH 9227 BGII	8.49	10.53	9.60	15.90	10.32	16.74	27.07	6.49	13.14
4	Jadoo BG II (ZC1)	5.97	6.12	8.83	13.08	10.66	13.38	17.59	4.87	10.06
5	RCH 1060 BG II	9.99	9.01	8.44	12.35	11.51	16.40	21.01	6.38	11.89
6	BIO 6720 BGII	8.59	17.31	8.36	15.73	11.53	14.83	25.01	13.27	14.33
7	DACH 64C64 BGII	9.03	12.82	4.92	13.61	14.32	21.25	23.06	4.31	12.92
8	MRC 7347BG II (ZC2)	7.65	12.75	8.31	15.50	12.16	13.89	17.22	6.55	11.75
9	Core 101	10.22	4.26	5.81	8.62	9.78	16.51	17.38	2.79	9.42
10	KCH 9226 BGII	11.42	13.75	8.76	12.39	10.87	17.01	27.21	5.46	13.36
11	RCH 1039 BGII	8.32	13.45	6.69	18.81	11.71	17.92	21.12	6.63	13.08
	CD @ 5%	0.77	2.60	1.70	3.43	2.20		2.97	1.37	
	CV%	15.03	13.51	12.99	13.70	10.63		8.04	11.16	



Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean
1	AKHH 2022-1 (BGI)	10.82	16.72	6.01	7.86	11.31	19.51	0.84	13.45	10.82
2	AKHH 2022-2 (BGI)	10.96	17.97	6.97	7.90	10.52	22.99	1.83	10.27	11.18
3	KCH 9227 BGII	12.52	16.25	6.91	8.62	12.82	25.25	1.08	14.92	12.30
4	Jadoo BG II (ZC1)	10.22	22.37	6.05	9.41	11.81	20.52	0.91	12.97	11.78
5	RCH 1060 BG II	10.91	26.99	6.07	13.18	17.29	22.38	0.88	14.24	13.99
6	BIO 6720 BGII	9.09	16.56	7.10	10.59	15.33	24.07	0.65	12.88	12.03
7	DACH 64C64 BGII	11.43	19.27	5.32	8.91	8.43	21.45	2.25	15.77	11.60
8	MRC 7347BG II (ZC2)	6.60	15.93	6.13	8.13	7.85	21.14	0.64	12.34	9.85
9	Core 101	12.00	22.12	5.85	6.82	11.54	20.19	2.04	13.26	11.73
10	KCH 9226 BGII	12.54	19.36	7.18	7.37	15.60	24.69	0.86	17.34	13.12
11	RCH 1039 BGII	10.22	18.23	6.86	9.15	11.77	23.77	0.38	15.53	11.99
	CD @ 5%	2.07	4.16	1.17	2.96	1.95		1.39	1.85	
	CV%	11.42	12.98	10.67	19.54	9.48		72.56	7.99	



Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of H X H hybrids - II

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Dongargaon (Ankur)	Aurangabad (Kaveri)	Badnapur (Bioseed)	Mean	Rank	% Inc over best check
1	AKHH 2022-1 (BGI)	20.05	31.12	11.79	26.32	27.17	26.94	39.41	21.97	28.25	25.89	6	14.9
2	AKHH 2022-2 (BGI)	19.76	30.66	14.88	25.07	26.62	25.77	43.35	22.52	26.80	26.16	5	16.1
3	KCH 9227 BGII	21.01	26.78	16.50	24.53	28.32	23.14	41.99	28.15	26.71	26.35	3	16.9
4	Jadoo BG II (ZC1)	16.18	28.49	14.88	22.49	21.22	22.47	33.90	18.51	24.68	22.54	9	0.0
5	RCH 1060 BG II	20.90	36.00	14.52	25.53	23.55	28.80	38.78	21.89	26.24	26.25	4	16.4
6	BIO 6720 BGII	17.68	33.87	15.46	26.31	25.93	26.87	38.90	25.66	31.36	26.89	2	19.3
7	DACH 64C64 BGII	20.46	32.09	10.18	22.52	26.57	22.75	42.70	25.30	24.70	25.25	8	12.0
8	MRC 7347BG II (ZC2)	14.25	28.68	14.43	23.63	20.71	20.01	35.03	17.85	24.73	22.15	10	-1.7
9	Core 101	22.22	26.39	11.66	15.43	19.53	21.33	36.57	19.42	23.23	21.75	11	-3.5
10	KCH 9226 BGII	23.97	33.11	15.94	19.76	27.34	26.47	41.70	28.07	31.40	27.53	1	22.1
11	RCH 1039 BGII	18.54	31.68	13.54	27.95	25.47	23.48	41.68	21.50	26.28	25.57	7	13.4
	CD @ 5%	3.73	4.68	2.21	3.82	4.07	2.76		3.60	3.42			
	CV%	11.20	9.14	9.21	9.50	9.65	6.65		9.28	7.67			



Evaluation under Protected Conditions for Insect pests

Reaction to Insect Pests

Table: Advanced H X H trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	4.40	5.29	-	5.54	2.22	0.00	3.49	BETL
AKHH 2022-2 (BGI)	4.46	4.20	-	6.16	2.24	0.00	3.41	BETL
KCH 9227 BGII	6.10	5.42	-	6.04	2.33	0.00	3.98	BETL
Jadoo BG II	5.58	5.60	-	5.52	2.13	0.00	3.77	BETL
RCH 1060 BG II	7.02	4.29	-	4.92	1.53	0.00	3.55	BETL
BIO 6720 BGII	3.60	7.44	-	7.70	1.89	0.00	4.13	BETL
DACH 64C64 BGII	7.17	6.47	-	5.46	2.84	0.00	4.39	BETL
MRC 7347BG II	3.60	5.67	-	5.81	2.82	0.00	3.58	BETL
Core 101	2.32	5.53	-	4.82	2.47	0.00	3.03	BETL
KCH 9226 BGII	4.82	7.69	-	9.07	1.80	0.00	4.68	BETL
RCH 1039 BGII	4.94	9.64	-	8.38	1.40	0.00	4.87	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	1.51	1.82	0.91	1.31	0.82	4.11	1.75	BETL
AKHH 2022-2 (BGI)	1.94	1.60	0.78	0.89	0.69	4.89	1.80	BETL
KCH 9227 BGII	2.40	1.98	1.69	1.27	1.02	6.00	2.39	BETL
Jadoo BG II	2.75	1.58	1.27	1.02	1.09	6.67	2.40	BETL
RCH 1060 BG II	2.29	1.24	1.18	0.82	0.82	4.00	1.73	BETL
BIO 6720 BGII	1.22	1.16	1.87	1.47	0.62	4.44	1.80	BETL
DACH 64C64 BGII	3.55	2.09	1.60	1.49	0.93	6.56	2.70	BETL
MRC 7347BG II	1.50	4.13	1.84	1.60	1.13	7.78	3.00	BETL
Core 101	0.81	4.29	1.67	1.05	1.11	7.33	2.71	BETL
KCH 9226 BGII	2.10	2.73	1.27	1.25	1.11	4.78	2.21	BETL
RCH 1039 BGII	2.50	2.36	1.13	0.89	0.71	5.33	2.15	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	I	II	I	I	I	II	I	
AKHH 2022-2 (BGI)	I	I	I	I	I	II	I	
KCH 9227 BGII	I	I	I	I	I	II	I	
Jadoo BG II	I	I	II	I	I	III	II	
RCH 1060 BG II	I	I	II	I	I	II	I	
BIO 6720 BGII	I	I	II	I	I	II	I	
DACH 64C64 BGII	I	I	II	I	I	II	I	
MRC 7347BG II	I	II	II	I	I	III	II	
Core 101	I	II	II	I	I	III	II	
KCH 9226 BGII	I	I	II	I	I	II	I	
RCH 1039 BGII	I	I	I	0	I	II	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	4.30	9.38	0.98	0.45	1.78	0.00	2.54	BETL
AKHH 2022-2 (BGI)	6.24	12.07	1.07	0.59	2.62	0.00	3.34	BETL
KCH 9227 BGII	8.13	13.36	1.40	0.53	3.64	0.00	3.94	BETL
Jadoo BG II	6.85	14.27	1.62	0.57	2.67	0.00	3.92	BETL
RCH 1060 BG II	8.07	13.53	1.51	0.56	2.76	0.00	3.97	BETL
BIO 6720 BGII	4.75	10.00	1.11	0.42	2.07	0.00	2.73	BETL
DACH 64C64 BGII	13.68	9.64	1.38	0.44	2.51	0.00	4.21	BETL
MRC 7347BG II	7.12	8.93	1.36	0.67	1.96	0.00	3.05	BETL
Core 101	3.55	9.51	1.53	0.68	4.31	0.00	2.56	BETL
KCH 9226 BGII	7.31	9.13	1.49	0.57	3.47	0.00	3.11	BETL
RCH 1039 BGII	6.43	8.91	1.38	0.45	1.93	0.00	2.87	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	1.42	0.76	2.42	0.64	0.16	1.67	1.18	BETL
AKHH 2022-2 (BGI)	0.96	0.89	2.24	0.62	0.09	3.11	1.32	BETL
KCH 9227 BGII	1.69	0.73	1.89	0.80	0.22	3.67	1.50	BETL
Jadoo BG II	1.54	0.76	1.49	0.61	0.20	4.67	1.54	BETL
RCH 1060 BG II	1.29	0.67	2.04	0.65	0.16	1.22	1.01	BETL
BIO 6720 BGII	0.68	0.73	2.22	0.88	0.09	2.00	1.10	BETL
DACH 64C64 BGII	1.62	0.80	1.91	0.59	0.16	4.00	1.51	BETL
MRC 7347BG II	1.24	0.53	2.11	0.86	0.22	5.11	1.68	BETL
Core 101	0.63	0.53	2.38	0.66	0.09	4.78	1.51	BETL
KCH 9226 BGII	1.92	0.64	1.98	0.73	0.18	2.89	1.39	BETL



RCH 1039 BGII	1.94	0.56	2.04	0.62	0.04	3.44	1.44	BETL
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SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.68	1.38	-	0.10	1.56	0.13	0.77	
AKHH 2022-2 (BGI)	0.75	0.96	-	0.32	1.31	0.16	0.70	
KCH 9227 BGII	0.80	0.89	-	0.07	1.73	0.17	0.73	
Jadoo BG II	0.96	1.00	-	0.02	1.60	0.14	0.74	
RCH 1060 BG II	0.80	0.98	-	0.07	1.18	0.16	0.64	
BIO 6720 BGII	0.80	1.36	-	0.09	1.51	0.14	0.78	
DACH 64C64 BGII	0.83	1.31	-	0.04	1.78	0.19	0.83	
MRC 7347BG II	0.71	1.16	-	0.03	1.64	0.16	0.74	
Core 101	0.51	1.56	-	0.01	1.56	0.16	0.76	
KCH 9226 BGII	0.53	1.82	-	0.07	1.47	0.16	0.81	
RCH 1039 BGII	0.54	1.87	-	0.01	1.27	0.18	0.77	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara, * data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./ 5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 64C64 BGII	0.00	0.00	-	0.17	0.00	0.00	0.03	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions - Spotted/ Spiny Bollworms

Name of Entry	Spotted Bollworm (No./ 5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL



RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
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SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./ 5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions–Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.65	0.67	0.96	0.34	0.11	0.00	0.45	BETL
AKHH 2022-2 (BGI)	0.49	0.89	0.67	0.00	0.11	0.00	0.36	BETL
KCH 9227 BGII	0.09	0.56	2.27	0.34	0.11	0.00	0.56	BETL
Jadoo BG II	0.27	1.11	1.24	0.00	0.00	0.00	0.44	BETL
RCH 1060 BG II	0.57	1.33	1.74	0.34	0.00	0.00	0.66	BETL
BIO 6720 BGII	0.27	0.78	1.33	0.34	0.22	0.00	0.49	BETL
DACH 64C64 BGII	0.57	0.44	2.02	0.00	0.11	0.00	0.52	BETL
MRC 7347BG II	0.18	0.89	2.67	0.00	0.33	0.00	0.68	BETL
Core 101	0.27	0.22	1.36	0.00	0.11	0.00	0.33	BETL
KCH 9226 BGII	0.18	0.78	1.09	0.00	0.22	0.00	0.38	BETL
RCH 1039 BGII	0.27	0.33	3.09	0.00	0.11	0.00	0.63	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	4.35	8.33	8.89	6.67	1.11	0.00	4.89	BETL
AKHH 2022-2 (BGI)	3.16	10.56	6.67	0.00	1.11	0.00	3.58	BETL
KCH 9227 BGII	1.00	11.11	25.56	0.00	1.11	0.00	6.46	BETL
Jadoo BG II	1.15	12.22	14.44	0.00	0.00	0.00	4.64	BETL
RCH 1060 BG II	3.73	11.67	20.00	3.33	0.00	0.00	6.45	BETL
BIO 6720 BGII	1.15	10.56	14.44	3.33	2.22	0.00	5.28	BETL
DACH 64C64 BGII	4.35	11.67	22.22	0.00	1.11	0.00	6.56	BETL
MRC 7347BG II	1.50	9.44	28.89	0.00	4.44	0.00	7.38	BETL
Core 101	1.15	10.00	17.78	3.33	1.11	0.00	5.56	BETL
KCH 9226 BGII	1.50	8.89	12.22	0.00	2.22	0.00	4.14	BETL
RCH 1039 BGII	1.15	8.33	33.33	0.00	1.11	0.00	7.32	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	6.99	4.67	9.07	2.97	1.39	0.00	4.18	
AKHH 2022-2 (BGI)	6.32	4.67	7.43	0.00	1.63	0.00	3.34	
KCH 9227 BGII	4.13	4.67	23.79	1.48	2.84	0.00	6.15	
Jadoo BG II	3.12	4.00	12.31	0.43	0.00	0.00	3.31	
RCH 1060 BG II	6.52	4.00	17.89	1.34	1.00	0.00	5.13	
BIO 6720 BGII	3.29	3.33	13.17	2.70	5.37	0.00	4.64	
DACH 64C64 BGII	8.17	4.67	19.58	6.94	2.76	0.00	7.02	
MRC 7347BG II	3.97	4.67	26.16	6.30	7.22	0.00	8.05	
Core 101	2.70	4.00	18.67	1.16	0.95	0.00	4.58	
KCH 9226 BGII	4.34	4.00	14.69	5.92	2.86	0.00	5.30	
RCH 1039 BGII	5.21	5.33	28.32	1.24	1.86	0.00	6.99	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions –Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	3.67	2.33	3.13	1.19	0.55	0.00	1.81	
AKHH 2022-2 (BGI)	3.24	2.33	2.13	0.00	0.62	0.00	1.39	
KCH 9227 BGII	2.10	2.83	7.40	0.74	1.03	0.00	2.35	
Jadoo BG II	1.81	2.33	3.91	0.11	0.00	0.00	1.36	
RCH 1060 BG II	3.45	2.17	6.28	0.56	0.37	0.00	2.14	
BIO 6720 BGII	1.72	2.00	3.80	0.81	2.47	0.00	1.80	
DACH 64C64 BGII	3.81	3.33	6.98	2.08	1.00	0.00	2.87	
MRC 7347BG II	1.56	3.17	8.99	1.94	2.74	0.00	3.07	
Core 101	1.22	2.00	6.26	0.58	0.35	0.00	1.73	
KCH 9226 BGII	2.32	2.67	3.93	1.63	1.09	0.00	1.94	
RCH 1039 BGII	3.01	3.67	9.97	0.72	0.71	0.00	3.01	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Protected Conditions – No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
AKHH 2022-1 (BGI)	5.00	3.00	5.00	-	3.00	4.00	4.00	
AKHH 2022-2 (BGI)	5.00	3.00	5.00	-	3.00	4.00	4.00	
KCH 9227 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
Jadoo BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
RCH 1060 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
BIO 6720 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
DACH 64C64 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
MRC 7347BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
Core 101	5.00	3.00	5.00	-	3.00	4.00	4.00	
KCH 9226 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
RCH 1039 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 12 (a): Advanced Evaluation Trial –II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																	
			Surat				Bharuch				CICR, Nagpur									
			BLB		ALS		BLB		ALS		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
11	53041	AKHH 2022-1 (BGI)	0.0	DF	2.7	R	2.0	R	1.8	R	21.0	R	0.0	DF	27.7	MR	40.5	MR	48.0	MR
4	53042	AKHH 2022-2 (BGI)	0.0	DF	0.0	DF	3.7	R	2.3	R	12.4	R	0.0	DF	0.0	DF	37.2	MR	39.1	MR
1	53043	KCH 9227 BGII	6.2	R	0.0	DF	2.2	R	5.5	R	8.8	R	0.0	DF	30.4	MR	34.3	MR	35.8	MR
2	53044	Jadoo BG II (ZC1)	0.0	DF	0.0	DF	3.2	R	7.8	R	19.9	R	0.0	DF	0.0	DF	35.8	MR	41.9	MR
9	53045	RCH 1060 BG II	0.0	DF	2.5	R	7.2	R	5.7	R	10.5	R	16.7	R	0.0	DF	31.7	MR	14.1	R
3	53046	BIO 6720 BGII	0.0	DF	0.0	DF	5.3	R	5.8	R	10.2	R	0.0	DF	2.8	R	33.3	MR	30.0	MR
10	53047	DACH 64C64 BGII	9.8	R	0.0	DF	2.3	R	4.8	R	25.5	MR	19.4	R	8.3	R	40.4	MR	44.4	MR
6	53048	MRC 7347BG II (ZC2)	5.8	R	0.0	DF	2.7	R	4.7	R	10.5	R	11.1	R	5.5	R	39.3	MR	39.7	MR
8	53049	Core 101	0.0	DF	2.0	R	2.3	R	4.2	R	11.0	R	24.9	R	11.1	R	35.1	MR	41.3	MR
5	53050	KCH 9226 BGII	5.8	R	0.0	DF	1.8	R	2.2	R	9.3	R	5.5	R	27.7	MR	31.5	MR	38.8	MR
7	53051	RCH 1039 BGII	10.5	R	0.0	DF	0.0	DF	5.3	R	17.8	R	0.0	DF	2.8	R	39.9	MR	39.8	MR



Table 12 (b): Advanced Evaluation Trial –II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions											
			PDKV, Akola						Nanded					
			BLB		GM		MLS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
11	53041	AKHH 2022-1 (BGI)	17.5	R	13.8	R	18.8	R	0.0	DF	4.4	R	5.6	R
4	53042	AKHH 2022-2 (BGI)	7.5	R	16.3	R	21.3	R	0.0	DF	0.0	DF	5.3	R
1	53043	KCH 9227 BGII	23.8	R	21.3	R	15.0	R	2.5	R	7.4	R	6.0	R
2	53044	Jadoo BG II (ZC1)	6.3	R	26.3	MR	16.3	R	4.9	R	0.0	DF	5.8	R
9	53045	RCH 1060 BG II	5.0	R	23.8	R	22.5	R	3.2	R	0.0	DF	6.9	R
3	53046	BIO 6720 BGII	3.8	R	20.0	R	18.8	R	3.1	R	0.0	DF	6.1	R
10	53047	DACH 64C64 BGII	7.5	R	21.3	R	20.0	R	3.1	R	0.0	DF	6.5	R
6	53048	MRC 7347BG II (ZC2)	13.8	R	17.5	R	26.3	MR	3.8	R	4.4	R	5.6	R
8	53049	Core 101	6.3	R	22.5	R	23.8	R	0.0	DF	0.0	DF	6.3	R
5	53050	KCH 9226 BGII	25	R	21.3	R	22.5	R	0.0	DF	6.5	R	7.3	R
7	53051	RCH 1039 BGII	16.3	R	27.5	MR	30.0	MR	2.6	R	0.0	DF	6.6	R



Table 12(d): Advanced Evaluation Trial –II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Protected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																									
			Kaveri , Aurangabad								Ankur , Dongargaon				Bioseed, BADNAPUR (JALNA)													
			ALS		GM		BLB		TSV		FLS		BLB		TSV		ALB		BLB		GM		CoLS		Root Rot		Boll Rot	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
11	53041	AKHH 2022-1 (BGI)	8.7	R	9.8	R	4.0	R	2.3	R	6.7	R	10.0	R	0.0	DF	16.7	R	13.7	R	44.8	MR	3.2	R	0.0	DF	0.0	DF
4	53042	AKHH 2022-2 (BGI)	8.7	R	7.9	R	5.5	R	1.9	R	8.3	R	0.0	DF	0.0	DF	11.8	R	12.0	R	28.7	MR	1.8	R	0.0	DF	0.0	DF
1	53043	KCH 9227 BGII	6.7	R	4.3	R	3.1	R	0.7	R	0.0	DF	33.3	MS	0.0	DF	15.7	R	14.8	R	34.2	MR	1.2	R	0.0	DF	0.0	DF
2	53044	Jadoo BG II (ZC1)	8.0	R	6.4	R	4.3	R	1.0	R	8.3	R	0.0	DF	0.0	DF	14.3	R	15.5	R	30.8	MR	3.0	R	0.0	DF	0.0	DF
9	53045	RCH 1060 BG II	25.6	MR	10.2	R	5.0	R	3.1	R	25.0	MS	0.0	DF	0.0	DF	10.3	R	17.7	R	11.5	R	1.0	R	0.0	DF	0.0	DF
3	53046	BIO 6720 BGII	8.5	R	7.1	R	6.7	R	1.0	R	6.7	R	0.0	DF	0.0	DF	12.0	R	15.7	R	22.3	R	1.5	R	0.0	DF	0.0	DF
10	53047	DACH 64C64 BGII	9.7	R	5.8	R	5.0	R	2.5	R	8.3	R	0.0	DF	0.0	DF	12.8	R	14.0	R	23.2	R	1.8	R	0.0	DF	0.0	DF
6	53048	MRC 7347BG II (ZC2)	11.2	R	8.3	R	5.7	R	2.7	R	0.0	DF	0.0	DF	0.0	DF	11.2	R	15.0	R	31.0	MR	1.8	R	0.0	DF	0.0	DF
8	53049	Core 101	8.2	R	5.2	R	6.5	R	0.9	R	31.7	MS	0.0	DF	0.0	DF	3.3	R	14.2	R	19.2	R	2.5	R	0.0	DF	0.0	DF
5	53050	KCH 9226 BGII	6.8	R	4.6	R	3.9	R	0.8	R	0.0	DF	23.3	MS	0.0	DF	22.7	R	17.2	R	38.7	MR	1.8	R	0.0	DF	0.0	DF
7	53051	RCH 1039 BGII	10.9	R	8.6	R	7.4	R	1.9	R	11.7	MR	0.0	DF	0.0	DF	15.0	R	16.8	R	25.8	MR	1.8	R	0.0	DF	0.0	DF



Evaluation under Unprotected Conditions for Insect pests Reaction to Insect Pests

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Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	7.00	7.73	-	3.98	8.20	0.00	5.38	BETL
AKHH 2022-2 (BGI)	7.20	6.07	-	5.42	7.93	0.00	5.32	BETL
KCH 9227 BGII	10.87	7.93	-	5.58	10.47	0.00	6.97	BETL
Jadoo BG II	7.47	9.00	-	2.64	10.07	0.00	5.84	BETL
RCH 1060 BG II	10.13	6.87	-	4.11	5.93	0.00	5.41	BETL
BIO 6720 BGII	5.33	10.60	-	3.87	8.00	0.00	5.56	BETL
DACH 64C64 BGII	10.27	8.80	-	2.76	10.73	0.00	6.51	BETL
MRC 7347BG II	5.33	7.60	-	3.38	10.33	0.00	5.33	BETL
Core 101	3.60	8.07	-	3.78	9.84	0.00	5.06	BETL
KCH 9226 BGII	7.53	11.60	-	6.93	8.07	0.00	6.83	BETL
RCH 1039 BGII	7.60	12.47	-	3.76	6.07	0.00	5.98	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	1.73	2.27	-	1.22	2.47	4.78	2.49	BETL
AKHH 2022-2 (BGI)	2.13	2.13	-	1.22	2.07	5.56	2.62	BETL
KCH 9227 BGII	2.80	2.47	-	1.24	3.07	6.78	3.27	BETL
Jadoo BG II	2.93	2.27	-	0.91	3.00	7.11	3.24	BETL
RCH 1060 BG II	2.53	1.67	-	0.71	2.33	4.44	2.34	BETL
BIO 6720 BGII	1.53	1.13	-	0.91	1.87	5.33	2.16	BETL
DACH 64C64 BGII	4.67	2.73	-	1.40	2.87	7.22	3.78	BETL
MRC 7347BG II	1.87	6.07	-	1.18	3.27	8.44	4.16	BETL
Core 101	1.00	5.20	-	1.24	3.53	7.89	3.77	BETL
KCH 9226 BGII	2.33	2.20	-	0.80	3.00	5.33	2.73	BETL
RCH 1039 BGII	2.67	2.07	-	0.76	2.00	6.11	2.72	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	I	I	-	0	II	II	I	
AKHH 2022-2 (BGI)	I	I	-	0	II	II	I	
KCH 9227 BGII	I	I	-	0	II	III	I	
Jadoo BG II	I	I	-	0	II	III	I	
RCH 1060 BG II	I	I	-	0	II	II	I	
BIO 6720 BGII	I	I	-	I	II	II	I	
DACH 64C64 BGII	I	I	-	I	II	III	II	
MRC 7347BG II	I	II	-	I	II	III	II	
Core 101	I	II	-	I	II	III	II	
KCH 9226 BGII	I	I	-	0	II	II	I	
RCH 1039 BGII	I	I	-	0	I	II	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	6.00	12.93	-	0.82	5.33	0.00	5.02	BETL
AKHH 2022-2 (BGI)	7.87	19.03	-	0.56	7.93	0.00	7.08	BETL
KCH 9227 BGII	10.53	19.27	-	0.49	10.67	0.00	8.19	BETL
Jadoo BG II	8.47	20.53	-	0.29	7.53	0.00	7.36	BETL
RCH 1060 BG II	10.20	21.53	-	0.49	7.40	0.00	7.92	BETL
BIO 6720 BGII	6.20	14.00	-	0.38	6.27	0.00	5.37	BETL
DACH 64C64 BGII	20.27	13.80	-	0.40	8.27	0.00	8.55	BETL
MRC 7347BG II	10.80	17.73	-	0.29	5.87	0.00	6.94	BETL
Core 101	6.33	13.67	-	0.33	13.73	0.00	6.81	BETL
KCH 9226 BGII	9.27	11.27	-	0.44	9.60	0.00	6.12	BETL
RCH 1039 BGII	8.33	11.13	-	0.31	5.47	0.00	5.05	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	1.87	1.20	-	0.76	0.47	2.33	1.32	BETL
AKHH 2022-2 (BGI)	1.20	0.93	-	0.60	0.27	3.78	1.36	BETL
KCH 9227 BGII	2.00	1.00	-	0.38	0.60	4.33	1.66	BETL
Jadoo BG II	1.87	0.67	-	0.64	0.47	5.11	1.75	BETL
RCH 1060 BG II	2.07	0.87	-	0.62	0.40	1.67	1.12	BETL
BIO 6720 BGII	1.53	0.87	-	0.53	0.27	2.67	1.17	BETL
DACH 64C64 BGII	1.87	1.00	-	0.82	0.47	4.67	1.76	BETL
MRC 7347BG II	1.73	0.93	-	0.80	0.60	5.67	1.95	BETL
Core 101	0.93	0.80	-	1.00	0.20	5.22	1.63	BETL
KCH 9226 BGII	2.67	0.73	-	0.80	0.47	3.22	1.58	BETL
RCH 1039 BGII	2.20	0.60	-	0.82	0.13	4.11	1.57	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.60	2.07	-	0.07	3.36	0.20	1.26	
AKHH 2022-2 (BGI)	0.80	1.33	-	0.09	2.98	0.19	1.08	
KCH 9227 BGII	0.80	1.53	-	0.02	3.80	0.20	1.27	
Jadoo BG II	0.93	1.27	-	0.16	3.58	0.18	1.22	
RCH 1060 BG II	0.87	1.20	-	0.00	2.56	0.19	0.96	
BIO 6720 BGII	0.80	2.40	-	0.09	3.40	0.18	1.37	
DACH 64C64 BGII	0.73	2.47	-	0.00	3.87	0.22	1.46	
MRC 7347BG II	0.67	1.60	-	0.00	3.56	0.18	1.20	
Core 101	0.53	2.27	-	0.00	3.78	0.19	1.35	
KCH 9226 BGII	0.53	2.80	-	0.04	3.33	0.19	1.38	
RCH 1039 BGII	0.73	2.93	-	0.04	2.80	0.21	1.34	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./ 5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.27	0.00	0.05	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworm (No./ 5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./ 5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
Core 101	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions–Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	1.00	0.67	-	1.00	0.33	0.00	0.60	BETL
AKHH 2022-2 (BGI)	0.67	1.00	-	0.00	0.33	0.00	0.40	BETL
KCH 9227 BGII	0.67	0.67	-	0.00	0.67	0.00	0.40	BETL
Jadoo BG II	0.33	1.33	-	0.00	0.00	0.00	0.33	BETL
RCH 1060 BG II	1.00	1.67	-	0.00	0.00	0.00	0.53	BETL
BIO 6720 BGII	0.67	1.00	-	0.00	1.33	0.00	0.60	BETL
DACH 64C64 BGII	1.00	0.67	-	0.00	1.00	0.00	0.53	BETL
MRC 7347BG II	0.67	1.00	-	0.00	2.67	0.00	0.87	BETL
Core 101	0.67	0.67	-	0.00	0.67	0.00	0.40	BETL
KCH 9226 BGII	1.00	1.00	-	0.00	1.33	0.00	0.67	BETL
RCH 1039 BGII	0.67	0.67	-	0.00	0.67	0.00	0.40	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	0.00	0.00	-	0.00	0.93	0.00	0.19	BETL
AKHH 2022-2 (BGI)	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
KCH 9227 BGII	0.00	0.00	-	0.00	1.07	0.00	0.21	BETL
Jadoo BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1060 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6720 BGII	0.00	0.00	-	0.00	1.27	0.00	0.25	BETL
DACH 64C64 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
MRC 7347BG II	0.00	0.00	-	0.00	1.87	0.00	0.37	BETL
Core 101	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
KCH 9226 BGII	0.00	0.00	-	0.00	1.00	0.00	0.20	BETL
RCH 1039 BGII	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	10.00	10.00	-	10.00	5.56	0.00	7.11	BETL
AKHH 2022-2 (BGI)	6.67	11.67	-	0.00	6.67	0.00	5.00	BETL
KCH 9227 BGII	6.67	11.67	-	0.00	10.00	0.00	5.67	BETL
Jadoo BG II	6.67	13.33	-	0.00	0.00	0.00	4.00	BETL
RCH 1060 BG II	10.00	8.33	-	0.00	3.33	0.00	4.33	BETL
BIO 6720 BGII	6.67	13.33	-	0.00	20.00	0.00	8.00	BETL
DACH 64C64 BGII	13.33	10.00	-	0.00	10.00	0.00	6.67	BETL
MRC 7347BG II	6.67	8.33	-	0.00	30.00	0.00	9.00	BETL
Core 101	6.67	10.00	-	0.00	3.33	0.00	4.00	BETL
KCH 9226 BGII	13.33	11.67	-	0.00	10.00	0.00	7.00	BETL
RCH 1039 BGII	6.67	13.33	-	0.00	6.67	0.00	5.33	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	8.36	4.00	-	5.48	5.22	0.00	4.61	
AKHH 2022-2 (BGI)	7.16	4.00	-	3.23	6.43	0.00	4.16	
KCH 9227 BGII	5.00	4.00	-	12.82	9.77	0.00	6.32	
Jadoo BG II	4.33	4.00	-	16.67	0.00	0.00	5.00	
RCH 1060 BG II	8.21	2.00	-	0.00	3.46	0.00	2.73	
BIO 6720 BGII	4.61	4.00	-	9.62	19.16	0.00	7.48	
DACH 64C64 BGII	9.33	4.00	-	5.00	9.82	0.00	5.63	
MRC 7347BG II	4.16	4.00	-	6.15	28.87	0.00	8.64	
Core 101	3.36	2.00	-	3.85	3.44	0.00	2.53	
KCH 9226 BGII	8.77	4.00	-	11.36	9.92	0.00	6.81	
RCH 1039 BGII	6.89	4.00	-	3.70	6.49	0.00	4.22	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H trial in Central Zone under Unprotected Conditions –Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
AKHH 2022-1 (BGI)	4.12	2.50	-	4.11	2.08	0.00	2.56	
AKHH 2022-2 (BGI)	3.21	1.50	-	3.76	2.45	0.00	2.18	
KCH 9227 BGII	2.56	2.00	-	11.54	3.56	0.00	3.93	
Jadoo BG II	2.11	2.50	-	18.75	0.00	0.00	4.67	
RCH 1060 BG II	4.36	1.50	-	9.13	1.29	0.00	3.26	
BIO 6720 BGII	2.01	2.00	-	9.13	7.47	0.00	4.12	
DACH 64C64 BGII	4.56	2.50	-	15.00	3.57	0.00	5.13	
MRC 7347BG II	1.65	2.50	-	8.85	10.97	0.00	4.79	
Core 101	1.33	1.50	-	14.42	1.28	0.00	3.71	
KCH 9226 BGII	4.21	2.50	-	13.07	3.78	0.00	4.71	
RCH 1039 BGII	3.87	3.00	-	6.48	2.49	0.00	3.17	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 12 (c): Advanced Evaluation Trial –II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Unprotected condition

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions																									
			Surat				Bharuch				CICR, Nagpur								Nanded									
			BLB		ALS		BLB		ALS		FFS		TSV		BLB		Boll rot		GM		CLS		BLB		GM			
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR		
11	53041	AKHH 2022-1 (BGI)	0.0	DF	0.0	DF	1.5	R	2.0	R	28.8	MR	8.3	R	30.4	MR	44.3	MR	54.7	MS	0.0	DF	7.8	R	0.0	R		
4	53042	AKHH 2022-2 (BGI)	0.0	DF	0.0	DF	4.5	R	4.0	R	18.5	R	8.3	R	11.0	R	43.5	MR	46.3	MR	0.0	DF	9.2	DF	0.0	R		
1	53043	KCH 9227 BGII	48.5	MR	0.0	DF	2.0	R	7.5	R	15.8	R	8.3	R	36.0	MR	43.5	MR	42.4	MR	6.3	R	0.0	R	7.6	R		
2	53044	Jadoo BG II (ZC1)	3.0	R	0.0	DF	4.0	R	13.5	R	26.8	MR	11.0	R	5.5	R	43.5	MR	48.0	MR	8.2	R	6.7	DF	0.0	R		
9	53045	RCH 1060 BG II	0.0	DF	4.5	R	9.5	R	4.5	R	16.6	R	19.4	R	8.3	R	40.2	MR	18.6	R	6.9	R	9.2	DF	6.6	R		
3	53046	BIO 6720 BGII	0.0	DF	0.0	DF	4.5	R	5.5	R	15.8	R	5.5	R	11.0	R	40.8	MR	35.3	MR	8.1	R	5.9	DF	7.3	R		
10	53047	DACH 64C64 BGII	0.0	DF	0.0	DF	1.5	R	4.0	R	36.0	MR	23.0	R	16.6	R	47.2	MR	52.7	MS	6.2	R	0.0	DF	0.0	R		
6	53048	MRC 7347BG II (ZC2)	0.0	DF	0.0	DF	1.5	R	2.0	R	18.5	R	19.3	R	13.8	R	47.2	MR	49.1	MR	8.4	R	0.0	R	0.0	R		
8	53049	Core 101	0.0	DF	0.0	DF	3.0	R	4.5	R	15.8	R	30.4	MR	19.3	R	43.5	MR	46.3	MR	0.0	DF	6.9	DF	0.0	R		
5	53050	KCH 9226 BGII	25.5	R	0.0	DF	2.0	R	2.0	R	13.0	R	13.0	R	30.4	MR	38.8	MR	47.2	MR	0.0	DF	7.8	R	0.0	R		
7	53051	RCH 1039 BGII	0.0	DF	0.0	DF	0.0	DF	5.5	R	27.7	MR	8.3	R	11.0	R	46.3	MR	47.2	MR	7.4	R	0.0	R	0.0	R		



Table 12(e): Advanced Evaluation Trial –II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																					
			Bioseed, BADNAPUR (JALNA)														Kaveri ,Aurangabad							
			TSV		ALB		BLB		GM		CoLS		Root Rot		Boll Rot		ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
11	53041	AKHH 2022-1 (BGI)	0.0	DF	32.5	MR	36.5	MR	64.0	MS	6.50	R	0.0	DF	0.0	DF	19.1	R	16.8	R	12.1	R	11.7	R
4	53042	AKHH 2022-2 (BGI)	0.0	DF	15.0	R	41.0	MR	50.5	MS	5.00	R	0.0	DF	0.0	DF	21.9	R	16.8	R	13.7	R	10.0	R
1	53043	KCH 9227 BGII	0.0	DF	15.5	R	34.5	MR	50.5	MS	4.00	R	0.0	DF	0.0	DF	16.1	R	7.4	R	6.3	R	3.5	R
2	53044	Jadoo BG II (ZC1)	0.0	DF	17.0	R	40.0	MR	54.5	MS	3.50	R	0.0	DF	0.0	DF	24.8	R	12.7	R	10.2	R	5.2	R
9	53045	RCH 1060 BG II	0.0	DF	11.5	R	41.0	MR	34.0	MR	4.00	R	0.0	DF	0.0	DF	30.6	MR	25.2	MR	12.8	R	16.2	R
3	53046	BIO 6720 BGII	0.0	DF	17.5	R	26.0	MR	44.5	MR	3.50	R	0.0	DF	0.0	DF	20.7	R	12.1	R	14.3	R	5.2	R
10	53047	DACH 64C64 BGII	0.0	DF	18.5	R	37.5	MR	55.5	MS	4.00	R	0.0	DF	0.0	DF	21.9	R	12.8	R	10.0	R	12.9	R
6	53048	MRC 7347BG II (ZC2)	0.0	DF	18.0	R	36.0	MR	46.5	MR	3.00	R	0.0	DF	0.0	DF	23.0	R	14.2	R	15.5	R	13.9	R
8	53049	Core 101	0.0	DF	11.5	R	41.0	MR	43.0	MR	4.00	R	0.0	DF	0.0	DF	20.1	R	11.0	R	30.2	MR	4.8	R
5	53050	KCH 9226 BGII	0.0	DF	27.5	MR	42.5	MR	64.5	MS	4.00	R	0.0	DF	0.0	DF	18.9	R	10.5	R	8.9	R	4.3	R
7	53051	RCH 1039 BGII	0.0	DF	18.5	R	34.5	MR	54.5	MS	5.00	R	0.0	DF	0.0	DF	26.5	MR	16.7	R	14.3	R	9.7	R



Agronomic Evaluation

AKOLA

AKOLA (AKHH 2022-2 (BG-II))

The pre released cotton hybrid (AKHH 2022-2 (BG-II)) produced significantly higher seed cotton yield (2922 kg/ha) with plant density (0.37 lakh ha⁻¹) i.e. with 90 x 30 cm spacing which was found significantly superior over wider spacing of 90x45 cm with plant density of 0.25 lakh /ha (2480 kg/ha) and 0.18 lakh/ha i.e.at spacing of 90x60 cm (2243 kg/ha). Among the nitrogen levels , a higher seed cotton yield (2788 kg/ha) was recorded in 125 % N level which was found significantly superior over application of 75 % RDN (2389 kg/ha) and 100 % RDN level of nitrogen (2468 kg/ha). It is concluded that this pre-released Bt hybrid responds to higher doses of nitrogen than recommended levels. The interaction effects of spacing x nitrogen levels were found to be non-significant with all growth parameters and seed cotton yield (Table 9).

Table 9. Seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels in AKHH 2022-2 (BG-II) at Akola

Treatments	S1. 90x30 cm	S2. 90X45 cm	S3. 90X60 cm	Mean (Nitrogen)	Anova	SE d	CD (5%)
N ₁ - 75% RDN	2683	2340	2145	2389	Spacing	101.84	215.88
N ₂ - 100% RDN	2722	2484	2198	2468	Nitrogen	101.84	215.88
N ₃ - 125% RDN	3362	2616	2386	2788	S X N	176.38	NS
Mean (spacing)	2922	2480	2243		CV	8.48	

Basic parameters: pH: 7.90, EC: 0.13 dS m⁻¹, OC (g kg⁻¹): 3.95, Available N: 262 kg/ha, Available P₂O₅: 16.9 kg/ha, Available K₂O: 392 kg/ha, Recommended nutrients: 90:45:45 kg NPK/ha, Genotype: AKHH 2022-2 (BG-II), Environment: Rainfed, Total rainfall during cropping period: 863.5 mm

AKOLA (RCH-1039 (BG-II))

The results of agronomic requirement study results found that SCY was significantly highest (2887 kg/ha) with plant density (0.37 lakh ha⁻¹) i.e. with 90 x 30 cm spacing which was found significantly superior over wider spacing of 90X45 cm with plant density of 0.24 lakh /ha (2371 kg/ha) and 0.18 lakh/ha i.e.at spacing of 90x60 cm (2187 kg/ha). The pre released Bt hybrid RCH-1039 (BG-II) responds to closer spacing of 90x30 cm than wider spacing. This might be due to less monopodial branches in this genotype. The check hybrid RCH 929 with RDF of 90:45:45 and plant spacing of 90x45 recorded seed cotton yield of 2165 kg/ha. Among the nitrogen levels , highest SCY (2794 kg/ha) was recorded with 125 % RDN level, which was found significantly superior over 75 %RDN (2232 kg/ha) and 100 % RDN level (2420kg/ha). . The results with respect to interaction found that the seed cotton yield of pre released genotype RCH-1039 (BG-II) (3475 kg/ha) was significantly highest at 90x30 cm with a plant population of 0.37 lakh ha⁻¹ and N level of 125 % RDN (Table 10).



Table 10. Seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels in RCH-1039 (BG-II) at Akola

Treatments	S1. 90x30 cm	S2. 90X45 cm	S3. 90X60 cm	Mean (Nitrogen)	Anova	SE d	CD (5%)
N ₁ - 75% RDN	2559	2147	1989	2232	Spacing	92.26	196
N ₂ - 100% RDN	2626	2450	2183	2420	Nitrogen	92.26	196
N ₃ - 125% RDN	3475	2516	2390	2794	S X N	160	339
Mean (spacing)	2887	2371	2187		CV	7.89	

Basic parameters: pH: 7.90, EC: 0.13 dS m⁻¹, OC (g kg⁻¹): 3.95, Available N: 262 kg/ha, Available P₂O₅: 16.9 kg/ha, Available K₂O: 392 kg/ha, Recommended nutrients: 90:45:45 kg NPK/ha, Genotype: RCH-1039 (BG-II), Environment: Rainfed, Total rainfall during cropping period: 863.5 mm

AKOLA (RCH-1060 (BG-II))

The spacing and nutrients requirement studies results (Table 11) revealed that the SCY was significantly highest (2798 kg/ha) with plant density (0.37 lakh ha⁻¹) i.e. with 90 x 30 cm spacing which was found significantly superior over wider spacing of 90X45 cm with plant density of 0.24 lakh /ha (2377 kg/ha) and 0.18 lakh/ha i.e.at spacing of 90x60 cm (2170kg/ha). The pre released Bt hybrid RCH-1060 (BG-II) responds to closer spacing of 90x30 cm than wider spacing. This might be due to fewer monopodial branches to this genotype. The check Bt hybrid RCH -929 recorded seed cotton yield of 2210 with recommended spacing of 90x45 cm Among the nitrogen levels , the highest SCY (2738 kg/ha) was recorded in 125 % RDN I which was found significantly superior than 75 % RDN (2212 kg/ha) and 100 % RDN level of nitrogen (2395 kg/ha). The interaction results found that closer plant spacing of 90x30 cm with higher level of N (125 % RDN) recorded maximum seed cotton yield of 3331 kg/ha.

Table 11. Seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels in RCH-1060 (BG-II) at Akola

Treatments	S1. 90x30 cm	S2. 90X45 cm	S3. 90X60 cm	Mean (Nitrogen)	Anova	SE d	CD (5%)
N ₁ - 75% RDN	2495	2114	2027	2212	Spacing	91	193
N ₂ - 100% RDN	2570	2476	2140	2395	Nitrogen	91	193
N ₃ - 125% RDN	3331	2541	2342	2738	S X N	158	335
Mean (spacing)	2798	2377	2170		CV	7.90	

Basic parameters: pH: 7.90, EC: 0.13 dS m⁻¹, OC (g kg⁻¹): 3.95, Available N: 262 kg/ha, Available P₂O₅: 16.9 kg/ha, Available K₂O: 392 kg/ha, Recommended nutrients: 90:45:45 kg NPK/ha, Genotype: RCH-1060 (BG-II), Environment: Rainfed, Total rainfall during cropping period: 863.5 mm



BHARUCH (BIO 6720 BGII)

The results of agronomic requirement studies conducted at Bharuch under rainfed conditions showed that different spacing significantly influences the seed cotton yield (Table 42). Among the different spacing S₂ 120 x 45 cm recorded significantly higher seed cotton yield (2836 kg/ha). The effect different N levels found to be non-significant. The interaction between spacing and N levels produce significant difference. The highest seed cotton yield (3155 kg/ha) was recorded with the combination of 120 x 45 cm spacing and 100 % RDN.

Table 42. Seed cotton yield (kg/ha) of BIO 6720 BGII as influenced by spacing levels and nutrient levels at Bharuch

Treatments	S 1 - 120 X 30 cm	S 2 - 120 X 45 cm	S 3 - 120 X 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2531	2615	2616	2587	Spacing	88.2	186.9
N ₂ - 100 %RDN	2523	3155	2524	2734	Nitrogen	88.2	NS
N ₃ -125 %RDN	2413	2738	2690	2614	S X N	152.8	323.8
Mean(spacing)	2489	2836	2610		CV%	7.07	

Basic parameters: pH: 7.6, EC: 0.240, OC (%): 0.26, Available N: 235 kg/ha, Available P₂O₅: 37.17 kg/ha, Available K₂O: 445 kg/ha, Recommended nutrients: 120:0:0 kg NPK/ha, Genotype: BIO 6720 BGII, Environment: Rainfed, Total rainfall during cropping period: 1015 mm

BHARUCH (DACH 64C64 BGII)

The data on seed cotton yield as influenced by spacing and nitrogen levels under rainfed conditions at Bharuch (Table 43). The results revealed that the main effect of spacing was non-significant, although S₂ (120 × 45 cm) recorded numerically higher mean seed cotton yield (2457 kg/ha) compared to S₁ (2392 kg/ha) and S₃ (2354 kg/ha). In contrast, nitrogen levels exerted a significant effect on seed cotton yield, with N₃ (125% RDN, 150 kg N ha⁻¹) producing significantly higher mean yield (2572 kg/ha) than N₁ (2321 kg/ha) and N₂ (2309 kg/ha). The interaction between spacing and nitrogen levels was also significant, indicating that the response of seed cotton yield to nitrogen varied across spacing treatments. The highest seed cotton yield (3134 kg/ha) was recorded under the treatment combination of S₂ (120 × 45 cm) and N₃ (125% RDN).

Table 43. Seed cotton yield (kg/ha) of DACH 64C64 BGII as influenced by spacing levels and nutrient levels at Bharuch

Treatments	S 1 - 120 X 30 cm	S 2 - 120 X 45 cm	S 3 :- 120 X 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2554	2049	2361	2321	Spacing	84.1	NS
N ₂ - 100 %RDN	2398	2187	2343	2309	Nitrogen	84.1	178.2
N ₃ -125 %RDN	2223	3134	2358	2572	S X N	145.6	308.7
Mean (spacing)	2392	2457	2354		CV%	7.43	

Basic parameters: pH: 7.6, EC: 0.240, OC (%): 0.26, Available N: 235 kg/ha, Available P₂O₅: 37.17 kg/ha, Available K₂O: 445 kg/ha, Recommended nutrients: 120:0:0 kg NPK/ha, Genotype: DACH 64C64 BGII, Environment: Rainfed, Total rainfall during cropping period: 1015 mm



BHARUCH (KCH 9227 BGII)

The data on seed cotton yield as influenced by spacing and nitrogen levels under rainfed conditions at Bharuch are presented in (Table 44). The results revealed that the main effect of spacing was significant, with S₂ (120 × 45 cm) recorded significantly higher mean seed cotton yield (2868 kg/ha) compared to S₁ (2504 kg/ha) and S₃ (2628 kg/ha). Nitrogen levels did not show significant difference on seed cotton yield. The interaction effect between spacing and nitrogen levels was found significant. The significantly highest seed cotton yield (3150 kg/ha) was recorded under the treatment combination of S₂ (120 × 45 cm) and N₂ (100% RDN), which was superior to most of the other treatment combinations.

Table 44. Seed cotton yield (kg/ha) of KCH 9227 BGII as influenced by spacing levels and nutrient levels at Bharuch

Treatments	S 1 - 120 X 30 cm	S 2 - 120 X 45 cm	S 3 :- 120 X 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2394	2536	2683	2538	Spacing	86.1	182.4
N ₂ - 100 %RDN	2553	3150	2533	2746	Nitrogen	86.1	NS
N ₃ -125 %RDN	2563	2917	2667	2716	S X N	149.0	315.9
Mean (spacing)	2504	2868	2628		CV%	6.85	

Basic parameters: pH: 7.6, EC: 0.240, OC (%): 0.26, Available N: 235 kg/ha, Available P₂O₅: 37.17 kg/ha, Available K₂O: 445 kg/ha, Recommended nutrients: 120:0:0 kg NPK/ha, Genotype: KCH 9227 BGII, Environment: Rainfed, Total rainfall during cropping period: 1015 mm

BHARUCH (KCH 9226 BGII)

The data on seed cotton yield as influenced by spacing and nitrogen levels under rainfed conditions at Bharuch are presented in (Table 45). The results revealed that the main effect of spacing was significant, with S₂ (120 × 45 cm) recording significantly higher mean seed cotton yield (2798 kg/ha) compared to S₁ (2443 kg/ha) and S₃ (2568 kg/ha). Nitrogen levels found non-significant. The interaction effect between spacing and nitrogen levels was significant, indicating that the response of seed cotton yield to nitrogen varied across spacing treatments. The highest seed cotton yield (3074 kg/ha) was recorded under the treatment combination of S₂ (120 × 45 cm) and N₂ (100% RDN), which was statistically superior to most of the other treatment combinations.

Table 45. Seed cotton yield (kg/ha) of KCH 9226 BGII as influenced by spacing levels and nutrient levels at Bharuch

Treatments	S 1 - 120 X 30 cm	S 2 - 120 X 45 cm	S 3 :- 120 X 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2336	2474	2618	2476	Spacing	83.6	177.1
N ₂ - 100 %RDN	2492	3074	2472	2679	Nitrogen	83.6	NS
N ₃ -125 %RDN	2501	2846	2613	2654	S X N	144.7	306.8
Mean (spacing)	2443	2798	2568		CV%	6.81	

Basic parameters: pH: 7.6, EC: 0.240, OC (%): 0.26, Available N: 235 kg/ha, Available P₂O₅: 37.17 kg/ha, Available K₂O: 445 kg/ha, Recommended nutrients: 120:0:0 kg NPK/ha, Genotype: KCH 9226 BGII, Environment: Rainfed, Total rainfall during cropping period: 1015 mm



BHARUCH (AKHH 2022-1 BGII)

The data on seed cotton yield as influenced by spacing and nitrogen levels under rainfed conditions at Bharuch are presented in (Table 46). Total seed cotton yield was significantly influenced by different spacing and nitrogen level. The highest seed cotton yield was found in spacing S2 (2850 kg/ha) i.e. 120 X 45 cm of sowing and nitrogen level N3 (2868 kg/ha). Interaction effect of Spacing and Nitrogen was found non-significant.

Table 46. Seed cotton yield (kg/ha) of AKHH 2022-1 BGII as influenced by spacing levels and nutrient levels at Bharuch

Treatments	S 1 - 120 X 30 cm	S 2 - 120 X 45 cm	S 3 :- 120 X 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2396	2543	2415	2451	Spacing	90.2	191.3
N ₂ - 100 %RDN	2523	2963	2681	2722	Nitrogen	90.2	191.3
N ₃ -125 %RDN	2761	3043	2801	2868	S X N	156.3	NS
Mean (spacing)	2570	2850	2632		CV%	7.14	

Basic parameters: pH: 7.6, EC: 0.240, OC (%): 0.26, Available N: 235 kg/ha, Available P₂O₅: 37.17 kg/ha, Available K₂O: 445 kg/ha, Recommended nutrients: 120:0:0 kg NPK/ha, Genotype: AKHH 2022-1 (BGI), Environment: Rainfed, Total rainfall during cropping period: 1015 mm

BHARUCH (CORE 101 BGII)

The data on seed cotton yield as influenced by spacing and nitrogen levels under rainfed conditions at Bharuch are presented in (Table 47). Seed cotton yield was significantly influenced by different spacing and nitrogen level. The highest seed cotton yield was found in spacing S2 (2885 kg/ha) i.e. 120 X 45 cm of sowing while, significantly higher seed cotton yield (2904 kg/ha) was recorded in N3(150 kg N/ha). Interaction effect of Spacing and Nitrogen was found non-significant.

Table 47. Seed cotton yield (kg/ha) of CORE 101 BGII as influenced by spacing levels and nutrient levels at Bharuch

Treatments	S 1 - 120 X 30 cm	S 2 - 120 X 45 cm	S 3 - 120 X 60 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)
N ₁ - 75 %RDN	2426	2575	2444	2482	Spacing	91.3	193.5
N ₂ - 100 %RDN	2554	2999	2714	2756	Nitrogen	91.3	193.5
N ₃ -125 %RDN	2795	3080	2838	2904	S X N	158.1	NS
Mean (spacing)	2591	2885	2665		CV%	7.13	

Basic parameters: pH: 7.6, EC: 0.240, OC (%): 0.26, Available N: 235 kg/ha, Available P₂O₅: 37.17 kg/ha, Available K₂O: 445 kg/ha, Recommended nutrients: 120:0:0 kg NPK/ha, Genotype: CORE 101 BGII, Environment: Rainfed, Total rainfall during cropping period: 1015 mm



Initial Evaluation Trial of Compact Intra-Hirsutum Bt Hybrids - Rainfed

Constitution of Trial

The trial was constituted with 10 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids in closer spacing and one check hybrid in normal spacing as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	6	53061	ARCH 2528 BGII	Ankur Seeds Pvt. Limited
2	11	53062	YASH-8888 BG II	Yashoda Hybrid Seeds Pvt Ltd
3	1	53063	SP 7715 BG II	Crystal
4	12	53064	NCS 9495 Bt2	Nuziveedu Seeds Limited
5	8	53065	YASH-2222 BG II	Yashoda Hybrid Seeds Pvt Ltd
6	2	53066	PCH 9621 Bt2	Prabhat Agri Biotech Limited
7	5	53067	DACH 63C36 BGII	Dharti Agrochemicals Pvt. Limited
8	3	53068	US 704 BG II (ZC 2)	
9	10	53069	ARCH 777 BG II (ZC 1)	
10	7	53070	ARCH 2526 BGII	Ankur Seeds Pvt. Limited
11	4	53071	US 752 BGII	SeedWorks International Limited
12	9	53072	DACH 54C45 BGII	Dharti Agrochemicals Pvt. Limited
13			ARCH 777 BG II (ZC 1) (normal)	

The trial was conducted in nine locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; ICAR-CICR, Nagpur; ARS, Banswara; Nanded; Aurangabad (Nuziveedu); Dongargaon (Ankur); and Pachora (Nirmal).

Spacing: 90 x 15 cm was followed for the coded entries and the zonal check hybrid has been included under recommended spacing.

Number of rows: 6 rows of 6 meters per entry with three replications



Data recorded:
Biometric evaluation

Plant height (cm) at harvest in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	117.3	95.4	115.5	110.0	99.9	94.0	55.7	139.7	103.4
2	YASH-8888 BG II	112.0	92.0	119.0	114.9	100.5	96.0	49.7	145.3	103.7
3	SP 7715 BG II	123.7	109.7	126.8	127.4	99.0	110.0	55.3	146.0	112.2
4	NCS 9495 Bt2	109.7	95.9	126.8	115.2	100.7	100.0	49.7	140.3	104.8
5	YASH-2222 BG II	107.7	87.2	112.2	120.9	91.7	92.7	48.7	139.0	100.0
6	PCH 9621 Bt2	112.0	95.8	116.0	112.3	103.8	100.7	42.7	137.7	102.6
7	DACH 63C36 BGII	120.3	100.7	113.0	116.1	107.2	118.3	51.3	137.0	108.0
8	US 704 BG II (ZC 2)	112.7	95.0	125.9	117.8	104.3	104.0	54.7	142.3	107.1
9	ARCH 777 BG II (ZC 1)	100.7	91.5	123.2	115.7	94.7	107.3	55.0	141.3	103.7
10	ARCH 2526 BGII	117.7	92.4	121.2	115.4	99.9	110.0	48.7	140.3	105.7
11	US 752 BGII	107.3	92.2	124.5	125.9	95.7	110.7	45.7	139.0	105.1
12	DACH 54C45 BGII	112.0	87.8	121.1	105.7	106.3	112.0	51.0	139.3	104.4
13	ARCH 777 BG II (ZC 1) (normal)	106.7	107.3	-	132.5	89.0	106.3	80.7	133.7	108.0
	CD @ 5%	11.4	12.1	9.9	NS	9.7	13.5		1.7	
	CV%	6.0	7.7	4.9	7.5	5.8	7.3		3.9	



Number of monopodia in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	0.0	0.0	1.1	0.8	0.1	0.7	0.3	2.0	1.3	0.7
2	YASH-8888 BG II	0.1	0.0	1.8	1.2	0.3	2.3	0.7	2.0	1.4	1.1
3	SP 7715 BG II	0.0	0.0	1.2	0.7	0.5	0.7	0.0	1.0	0.2	0.5
4	NCS 9495 Bt2	0.1	0.0	1.7	1.0	0.2	1.7	0.3	1.0	0.8	0.8
5	YASH-2222 BG II	0.2	0.0	1.8	1.0	0.3	1.0	0.7	2.0	1.5	0.9
6	PCH 9621 Bt2	0.0	0.0	1.3	1.0	0.6	0.7	0.3	1.0	1.1	0.7
7	DACH 63C36 BGII	0.1	0.0	1.7	1.2	0.4	1.0	0.3	1.0	0.5	0.7
8	US 704 BG II (ZC 2)	0.0	0.0	1.4	0.9	1.2	0.7	0.0	2.0	1.0	0.8
9	ARCH 777 BG II (ZC 1)	0.0	0.0	1.7	1.0	0.2	1.7	0.3	2.0	1.6	0.9
10	ARCH 2526 BGII	0.0	0.0	1.7	0.8	0.3	1.0	0.7	1.0	0.6	0.7
11	US 752 BGII	0.1	0.0	2.2	1.3	0.3	1.3	0.0	1.0	1.4	0.8
12	DACH 54C45 BGII	0.0	0.4	1.3	0.3	0.3	1.0	0.7	1.0	0.4	0.6
13	ARCH 777 BG II (ZC 1) (normal)	0.4		-	1.5	0.4	2.0	1.3	3.0	2.5	1.6
	CD @ 5%	0.0		0.5	0.5	0.5	0.9			25.5	
	CV%	34.3		19.1	28.2	19.5	42.7			0.5	



Number of sympodia in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	10.9	11.9	17.5	25.1	18.8	20.3	18.3	9.0	13.2	16.1
2	YASH-8888 BG II	14.8	11.3	20.2	22.9	20.7	22.0	17.7	9.0	14.0	17.0
3	SP 7715 BG II	12.9	12.8	20.4	25.5	18.5	24.0	17.3	9.0	15.5	17.3
4	NCS 9495 Bt2	10.8	10.9	19.4	23.9	18.8	22.7	17.7	8.0	14.4	16.3
5	YASH-2222 BG II	13.7	12.5	18.2	25.9	22.3	21.7	17.7	8.0	13.7	17.1
6	PCH 9621 Bt2	14.3	13.4	18.5	24.7	23.3	24.3	19.0	8.0	13.7	17.7
7	DACH 63C36 BGII	12.3	11.6	17.7	22.3	22.2	23.0	17.7	9.0	13.5	16.6
8	US 704 BG II (ZC 2)	14.3	12.4	20.5	24.7	21.4	19.0	15.3	9.0	14.6	16.8
9	ARCH 777 BG II (ZC 1)	13.5	12.3	20.8	24.7	18.0	22.3	18.0	8.0	14.4	16.9
10	ARCH 2526 BGII	11.4	12.0	20.8	22.1	21.9	18.7	15.7	8.0	12.8	15.9
11	US 752 BGII	13.2	11.3	20.7	25.0	18.7	23.0	17.3	9.0	14.3	16.9
12	DACH 54C45 BGII	12.1	11.9	18.3	22.1	21.3	20.3	17.7	8.0	13.3	16.1
13	ARCH 777 BG II (ZC 1) (normal)	15.5	16.5	-	22.9	24.4	31.7	16.0	8.0	15.9	18.9
	CD @ 5%	2.3	2.3	2.5	2.5	3.9	6.3			8.8	
	CV%	10.4	11.1	7.5	6.1	11.1	15.7			2.1	



Boll weight (g) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	5.4	5.3	5.8	4.9	4.6	5.4	5.9	5.5	6.5	5.5
2	YASH-8888 BG II	4.6	4.1	5.2	3.9	3.9	5.3	4.0	4.3	6.3	4.6
3	SP 7715 BG II	6.0	5.5	6.0	4.8	5.2	6.2	5.6	5.9	6.5	5.7
4	NCS 9495 Bt2	4.8	4.7	4.8	4.1	4.5	5.7	5.0	4.8	5.8	4.9
5	YASH-2222 BG II	4.3	4.6	4.9	3.3	4.3	4.4	4.1	4.3	5.5	4.4
6	PCH 9621 Bt2	4.8	5.0	5.2	4.6	4.6	4.6	5.3	5.2	6.2	5.1
7	DACH 63C36 BGII	4.9	4.7	4.9	4.3	4.3	5.3	4.6	4.4	5.5	4.8
8	US 704 BG II (ZC 2)	4.4	4.5	5.0	3.7	4.5	5.5	4.7	5.1	6.0	4.8
9	ARCH 777 BG II (ZC 1)	4.7	5.0	5.2	4.7	4.8	4.9	4.4	5.0	5.6	4.9
10	ARCH 2526 BGII	5.3	5.4	6.0	4.9	5.0	5.8	5.4	5.7	6.2	5.5
11	US 752 BGII	4.8	4.9	5.1	4.4	4.7	5.3	5.1	5.3	5.9	5.1
12	DACH 54C45 BGII	5.1	5.2	5.0	4.5	4.7	5.7	4.9	4.7	5.6	5.0
13	ARCH 777 BG II (ZC 1) (normal)	4.4	4.7	-	4.1	3.9	4.9	4.5	4.4	5.8	4.6
	CD @ 5%	0.6	0.5	0.2	0.4	0.5	0.2			11.2	
	CV%	7.2	6.1	2.3	5.8	7.0	2.3			3.8	



Number of bolls / plant in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	6.9	6.3	13.2	12.0	11.5	24.0	12.0	13.0	13.5	12.5
2	YASH-8888 BG II	7.1	7.1	17.0	12.2	9.3	23.3	9.7	12.0	15.0	12.5
3	SP 7715 BG II	5.5	5.3	13.5	12.9	10.1	25.0	8.7	12.0	13.9	11.9
4	NCS 9495 Bt2	8.3	8.3	17.3	13.8	12.3	27.7	11.3	12.0	15.3	14.0
5	YASH-2222 BG II	9.4	8.0	17.2	15.0	15.7	21.3	16.3	16.0	18.0	15.2
6	PCH 9621 Bt2	7.8	6.9	15.3	11.8	11.1	22.7	11.3	12.0	16.0	12.8
7	DACH 63C36 BGII	7.5	7.5	10.5	12.5	9.9	23.0	10.3	14.0	15.3	12.3
8	US 704 BG II (ZC 2)	6.5	8.0	15.4	8.7	13.8	21.3	10.0	14.0	14.2	12.4
9	ARCH 777 BG II (ZC 1)	7.4	5.3	15.1	12.5	13.0	22.7	9.0	14.0	14.8	12.6
10	ARCH 2526 BGII	7.5	6.6	15.1	10.3	10.0	25.3	9.3	11.0	12.9	12.0
11	US 752 BGII	6.6	6.4	15.8	10.8	9.1	25.3	11.0	13.0	12.9	12.3
12	DACH 54C45 BGII	7.2	6.0	13.1	12.0	11.3	23.3	10.7	11.0	13.7	12.0
13	ARCH 777 BG II (ZC 1) (normal)	26.3	19.6	-	27.5	12.5	41.3	25.7	30.0	29.9	26.6
	CD @ 5%	1.4	1.5	2.7	5.5	2.4	6.8			8.6	
	CV%	9.2	11.9	10.8	24.5	12.2	15.3			2.2	



Number of bolls / sq.m. in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	50.9	46.4	89.6	101.8	245.7	76.0	99.8	101.5
2	YASH-8888 BG II	52.3	52.3	91.1	106.4	212.7	68.0	111.1	99.1
3	SP 7715 BG II	41.0	39.0	96.6	95.1	255.7	67.0	103.2	99.7
4	NCS 9495 Bt2	61.7	61.2	103.0	112.0	266.0	69.0	113.6	112.4
5	YASH-2222 BG II	69.6	59.2	112.0	108.3	238.0	83.0	133.3	114.8
6	PCH 9621 Bt2	57.8	50.8	88.1	99.3	250.3	66.0	118.5	104.4
7	DACH 63C36 BGII	55.8	55.5	93.6	96.7	244.3	81.0	113.6	105.8
8	US 704 BG II (ZC 2)	47.9	59.4	64.7	112.0	229.0	84.0	105.2	100.3
9	ARCH 777 BG II (ZC 1)	55.1	39.0	93.1	110.4	249.3	81.0	109.6	105.4
10	ARCH 2526 BGII	55.8	49.1	77.2	96.2	256.0	62.0	95.8	98.9
11	US 752 BGII	49.1	47.4	80.6	102.7	246.3	79.0	95.8	100.1
12	DACH 54C45 BGII	53.6	44.6	89.6	110.7	218.7	66.0	101.2	97.8
13	ARCH 777 BG II (ZC 1) (normal)	48.7	36.2	67.7	28.6	220.7	69.0	55.4	75.2
	CD @ 5%	5.4	8.1	NS	17.0	22.6		4.1	
	CV%	5.9	10.0	18.6	10.2	5.3		7.0	



Lint Index (g) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	3.5	6.8	6.2	6.2	6.1	6.7	6.5	4.4	5.8
2	YASH-8888 BG II	3.2	5.9	5.4	4.9	5.8	5.7	4.3	4.1	4.9
3	SP 7715 BG II	2.8	6.3	5.8	5.9	6.3	5.5	5.4	4.3	5.3
4	NCS 9495 Bt2	3.4	6.8	6.2	5.7	6.0	6.0	6.0	4.3	5.6
5	YASH-2222 BG II	3.3	5.3	4.5	4.2	5.3	5.1	3.5	3.6	4.4
6	PCH 9621 Bt2	3.0	5.5	5.3	4.6	5.5	5.1	5.7	4.0	4.8
7	DACH 63C36 BGII	3.8	6.6	5.8	5.3	5.7	6.1	5.6	3.6	5.3
8	US 704 BG II (ZC 2)	3.3	6.3	5.0	5.4	5.7	6.6	4.6	3.8	5.1
9	ARCH 777 BG II (ZC 1)	3.3	7.6	5.2	5.2	5.1	5.2	5.6	4.0	5.2
10	ARCH 2526 BGII	3.4	7.5	6.3	5.8	6.7	6.5	5.2	4.2	5.7
11	US 752 BGII	3.2	6.9	6.2	5.9	6.7	6.7	5.3	4.3	5.7
12	DACH 54C45 BGII	3.3	6.9	5.4	5.2	5.8	5.6	4.1	3.5	5.0
13	ARCH 777 BG II (ZC 1) (normal)	3.4	6.0	-	5.0	4.5	5.6	4.6	4.2	4.8
	CD @ 5%	0.4	0.5	0.2		0.4	0.5		10.1	
	CV%	6.6	4.6	1.7		3.7	4.3		0.1	



Seed Index (g) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	9.7	11.5	12.6	12.0	10.5	13.1	12.6	11.0	12.6	11.7
2	YASH-8888 BG II	8.8	9.5	10.6	9.2	10.7	11.1	9.4	7.0	12.0	9.8
3	SP 7715 BG II	9.2	11.7	12.8	14.0	11.1	12.5	14.5	11.0	12.9	12.2
4	NCS 9495 Bt2	8.8	10.2	10.0	9.9	9.5	11.1	10.1	9.0	11.5	10.0
5	YASH-2222 BG II	9.2	10.2	9.7	8.7	9.1	11.1	10.4	7.0	10.5	9.5
6	PCH 9621 Bt2	8.8	10.8	10.8	9.8	11.0	10.7	12.6	11.0	11.9	10.8
7	DACH 63C36 BGII	9.3	9.7	10.0	9.5	9.9	11.0	9.5	9.0	10.1	9.8
8	US 704 BG II (ZC 2)	9.0	10.3	10.4	10.0	11.3	12.1	11.2	8.0	11.6	10.4
9	ARCH 777 BG II (ZC 1)	8.8	11.0	9.0	10.6	10.3	9.9	10.9	10.0	11.9	10.3
10	ARCH 2526 BGII	9.3	11.8	11.2	11.2	10.8	12.4	11.8	9.0	12.5	11.1
11	US 752 BGII	8.5	10.8	10.7	11.0	11.1	11.7	10.0	10.0	12.1	10.7
12	DACH 54C45 BGII	9.3	11.2	10.0	10.3	10.1	11.7	10.5	8.0	10.6	10.2
13	ARCH 777 BG II (ZC 1) (normal)	8.7	10.8	-	9.0	10.5	10.6	10.6	8.0	12.0	10.0
	CD @ 5%	0.6	0.8	0.2		1.2	0.5			2.7	
	CV%	4.2	4.4	1.3		6.3	2.6			0.5	



Ginning outturn (%) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	33.1	37.3	33.1	34.3	34.7	34.0	33.6	37.2	34.8	34.7
2	YASH-8888 BG II	32.8	38.5	33.8	34.7	36.2	34.0	33.3	38.3	34.0	35.1
3	SP 7715 BG II	27.5	35.0	31.4	29.7	32.4	30.7	28.0	33.0	33.2	31.2
4	NCS 9495 Bt2	35.3	40.2	38.2	36.7	38.1	35.3	35.8	40.1	37.0	37.4
5	YASH-2222 BG II	33.0	34.4	31.8	32.7	32.3	31.7	31.0	33.5	33.9	32.7
6	PCH 9621 Bt2	31.2	33.8	32.8	32.0	35.4	32.3	31.2	34.3	33.8	33.0
7	DACH 63C36 BGII	37.0	40.5	36.8	35.7	38.2	35.7	35.4	38.6	35.7	37.1
8	US 704 BG II (ZC 2)	33.0	38.0	32.3	35.0	37.4	35.3	34.0	36.5	33.3	35.0
9	ARCH 777 BG II (ZC 1)	33.5	41.0	36.8	32.7	34.2	34.7	33.7	35.7	34.0	35.1
10	ARCH 2526 BGII	33.4	38.8	36.1	34.0	37.8	34.3	34.1	36.6	33.7	35.4
11	US 752 BGII	34.1	38.8	36.8	35.0	37.2	36.3	34.2	34.6	35.3	35.8
12	DACH 54C45 BGII	32.1	38.2	35.3	33.7	33.5	32.3	30.9	33.7	33.0	33.6
13	ARCH 777 BG II (ZC 1) (normal)	36.0	35.8	-	36.0	35.9	34.7	34.4	36.7	34.6	35.5
	CD @ 5%	1.8	2.0	0.3		2.2	1.2			5.4	
	CV%	3.3	3.2	0.6		3.7	2.0			1.5	



Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Mean
1	ARCH 2528 BGII	30.4	29.8	29.5	30.3	29.0	28.6	28.5	29.2	29.4
2	YASH-8888 BG II	29.2	28.1	29.3	29.2	28.3	26.9	27.0	27.2	28.2
3	SP 7715 BG II	31.0	30.7	30.5	31.1	30.0	29.5	30.4	28.9	30.3
4	NCS 9495 Bt2	29.9	29.0	27.8	29.9	28.2	27.8	28.2	27.8	28.6
5	YASH-2222 BG II	29.6	29.3	28.6	29.3	29.0	27.0	27.2	27.2	28.4
6	PCH 9621 Bt2	32.7	31.5	31.3	32.1	31.7	30.4	31.8	31.7	31.7
7	DACH 63C36 BGII	28.6	27.7	27.2	30.5	27.9	27.5	26.7	26.5	27.8
8	US 704 BG II (ZC 2)	29.1	27.3	28.6	30.1	29.4	27.9	28.7	28.1	28.7
9	ARCH 777 BG II (ZC 1)	28.8	29.2	27.8	29.8	28.3	27.3	27.6	28.0	28.4
10	ARCH 2526 BGII	31.5	30.5	29.8	30.0	29.4	28.7	28.4	29.6	29.7
11	US 752 BGII	28.6	26.7	28.2	29.6	27.8	27.6	27.0	26.0	27.7
12	DACH 54C45 BGII	28.6	29.0	28.2	25.8	27.6	27.4	26.0	25.6	27.3
13	ARCH 777 BG II (ZC 1) (normal)	29.2	28.6	-	28.3	28.1	27.4	27.4	28.4	28.2



 Uniformity index under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Aurangabad (Nuziveedu)	Mean
1	ARCH 2528 BGII	85.0	88.0	85.0	85.0	85.0	83.0	86.0	85.3
2	YASH-8888 BG II	84.0	84.0	84.0	84.0	83.0	83.0	85.0	83.9
3	SP 7715 BG II	83.0	86.0	84.0	86.0	84.0	83.0	82.0	84.0
4	NCS 9495 Bt2	85.0	86.0	84.0	85.0	84.0	84.0	83.0	84.4
5	YASH-2222 BG II	83.0	85.0	84.0	84.0	85.0	82.0	83.0	83.7
6	PCH 9621 Bt2	84.0	86.0	83.0	84.0	84.0	84.0	84.0	84.1
7	DACH 63C36 BGII	84.0	85.0	85.0	85.0	84.0	83.0	84.0	84.3
8	US 704 BG II (ZC 2)	83.0	83.0	83.0	85.0	84.0	83.0	80.0	83.0
9	ARCH 777 BG II (ZC 1)	84.0	86.0	84.0	85.0	84.0	83.0	84.0	84.3
10	ARCH 2526 BGII	84.0	87.0	86.0	85.0	85.0	83.0	86.0	85.1
11	US 752 BGII	84.0	83.0	84.0	85.0	84.0	83.0	82.0	83.6
12	DACH 54C45 BGII	83.0	86.0	83.0	81.0	83.0	84.0	83.0	83.3
13	ARCH 777 BG II (ZC 1) (normal)	84.0	85.0	-	82.0	84.0	83.0	84.0	83.7



Micronaire under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Mean
1	ARCH 2528 BGII	5.0	5.5	5.0	5.4	5.3	5.3	4.9	4.0	5.1
2	YASH-8888 BG II	4.0	4.6	4.3	4.2	4.4	4.9	4.0	3.8	4.3
3	SP 7715 BG II	3.8	3.7	3.9	4.0	4.2	3.9	3.6	3.1	3.8
4	NCS 9495 Bt2	5.0	5.3	5.2	4.5	5.1	5.1	4.7	4.0	4.9
5	YASH-2222 BG II	4.6	5.1	5.1	4.4	4.9	5.2	4.6	3.8	4.7
6	PCH 9621 Bt2	4.6	4.9	4.7	4.7	4.8	5.1	4.4	3.8	4.6
7	DACH 63C36 BGII	4.7	4.9	4.9	4.7	4.7	5.5	4.6	3.9	4.7
8	US 704 BG II (ZC 2)	4.6	4.6	3.7	3.7	3.8	4.2	3.2	2.7	3.8
9	ARCH 777 BG II (ZC 1)	4.5	4.1	4.4	4.0	4.5	4.7	4.2	3.5	4.2
10	ARCH 2526 BGII	4.5	4.9	5.0	5.0	5.1	5.3	4.6	4.0	4.8
11	US 752 BGII	5.0	5.6	4.7	5.1	5.4	5.5	4.3	4.2	5.0
12	DACH 54C45 BGII	4.9	5.4	4.9	5.5	5.3	5.5	5.1	4.3	5.1
13	ARCH 777 BG II (ZC 1) (normal)	4.6	4.7	-	4.1	4.2	4.7	4.2	3.5	4.3



Tenacity under HVI Mode in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Mean
1	ARCH 2528 BGII	29.1	30.6	27.8	27.3	28.7	30.2	28.6	28.4	28.8
2	YASH-8888 BG II	31.5	31.4	29.3	27.3	30.1	28.8	29.7	27.6	29.5
3	SP 7715 BG II	29.9	32.2	30.2	25.9	28.2	30.1	27.2	29.1	29.1
4	NCS 9495 Bt2	29.5	30.6	29.0	27.3	29.1	29.2	29.4	27.0	28.9
5	YASH-2222 BG II	31.5	31.3	28.6	27.0	30.8	29.0	29.3	29.4	29.6
6	PCH 9621 Bt2	31.3	33.4	29.5	26.8	30.1	29.9	29.9	30.4	30.2
7	DACH 63C36 BGII	28.6	27.5	28.6	27.5	29.3	26.6	27.5	25.1	27.6
8	US 704 BG II (ZC 2)	29.5	28.5	29.1	25.4	27.9	28.3	25.8	27.3	27.7
9	ARCH 777 BG II (ZC 1)	29.9	29.3	29.3	27.0	31.2	29.1	30.2	27.0	29.1
10	ARCH 2526 BGII	31.2	33.3	27.9	27.8	29.8	30.0	29.3	28.2	29.7
11	US 752 BGII	27.3	30.6	26.3	26.1	26.9	27.1	27.0	25.9	27.2
12	DACH 54C45 BGII	28.6	30.0	28.0	23.6	29.1	26.5	26.9	25.2	27.2
13	ARCH 777 BG II (ZC 1) (normal)	30.3	30.7	-	27.1	30.7	29.0	29.6	27.6	29.3



Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	8.57	10.08	19.31	6.15	13.34	14.64	21.94	20.88	14.36
2	YASH-8888 BG II	5.30	7.45	14.29	5.60	7.45	8.20	15.56	17.48	10.17
3	SP 7715 BG II	5.13	6.56	12.80	4.97	9.85	8.32	13.35	14.48	9.43
4	NCS 9495 Bt2	9.23	13.95	21.05	10.23	13.58	10.60	22.07	15.58	14.54
5	YASH-2222 BG II	9.67	11.70	20.47	9.18	8.39	9.88	20.70	18.20	13.52
6	PCH 9621 Bt2	9.33	11.57	18.31	8.37	8.64	12.14	21.63	15.75	13.22
7	DACH 63C36 BGII	8.77	10.68	19.14	7.56	8.93	12.72	15.70	15.27	12.35
8	US 704 BG II (ZC 2)	5.87	9.36	6.97	4.08	7.78	7.54	12.65	12.77	8.38
9	ARCH 777 BG II (ZC 1)	8.03	4.61	21.66	6.35	10.42	10.19	19.77	13.33	11.80
10	ARCH 2526 BGII	6.45	7.68	19.26	7.42	10.62	14.23	18.60	13.20	12.18
11	US 752 BGII	7.07	6.16	17.12	6.13	11.65	10.86	19.65	17.96	12.08
12	DACH 54C45 BGII	8.48	5.79	17.88	6.90	7.60	13.20	17.25	13.30	11.30
13	ARCH 777 BG II (ZC 1) (normal)	7.57	6.25	15.84	6.84	14.44	12.41	15.48	9.86	11.09
	CD @ 5%	1.05	2.21	3.00	1.92	1.64			18.07	
	CV%	8.17	15.56	10.34	16.39	9.02			2.25	



Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean
1	ARCH 2528 BGII	15.43	11.62	2.32	5.93	6.63	17.78	1.59	14.50	9.48
2	YASH-8888 BG II	16.61	12.37	3.42	5.83	6.35	11.52	3.84	12.78	9.09
3	SP 7715 BG II	15.80	11.82	2.72	6.16	8.89	13.48	3.84	12.50	9.40
4	NCS 9495 Bt2	17.57	11.93	2.80	6.30	8.33	13.62	2.12	13.80	9.56
5	YASH-2222 BG II	17.80	12.98	3.23	6.64	6.57	11.52	2.39	12.20	9.17
6	PCH 9621 Bt2	15.47	11.13	2.19	7.23	6.75	13.45	2.30	12.90	8.93
7	DACH 63C36 BGII	15.73	12.98	1.90	6.49	8.54	12.55	4.03	11.20	9.18
8	US 704 BG II (ZC 2)	14.50	14.85	2.27	4.99	7.28	13.84	6.57	8.25	9.07
9	ARCH 777 BG II (ZC 1)	14.73	11.96	3.38	6.00	6.37	10.91	3.54	13.63	8.82
10	ARCH 2526 BGII	19.60	14.97	2.73	6.85	8.01	13.07	2.75	12.75	10.09
11	US 752 BGII	14.03	14.62	1.88	4.90	8.14	16.91	3.18	11.90	9.45
12	DACH 54C45 BGII	15.63	14.63	2.37	6.81	7.59	13.27	2.91	10.50	9.21
13	ARCH 777 BG II (ZC 1) (normal)	12.77	7.98	3.15	7.33	8.22	10.78	5.10	4.49	7.48
	CD @ 5%	2.07	3.11	0.75	1.83	1.33			26.24	
	CV%	7.78	14.92	16.79	17.23	9.95			2.62	



Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Dongargaon (Ankur)	Aurangabad (Nuziveedu)	Pachora (Nirmal)	Mean	Rank	% Inc over best check
1	ARCH 2528 BGII	24.00	21.71	25.06	21.63	12.08	19.97	32.42	23.54	35.38	23.98	2	14.1
2	YASH-8888 BG II	21.91	19.81	22.35	17.71	11.43	13.79	19.72	19.40	30.26	19.60	10	-6.8
3	SP 7715 BG II	20.93	18.37	17.79	15.52	11.13	18.74	21.80	17.19	26.98	18.72	11	-11.0
4	NCS 9495 Bt2	26.80	25.88	27.97	23.85	16.53	21.90	24.22	24.20	29.38	24.53	1	16.7
5	YASH-2222 BG II	27.47	24.67	24.51	23.69	15.82	14.96	21.40	23.09	30.40	22.89	3	8.9
6	PCH 9621 Bt2	24.80	22.70	25.62	20.50	15.60	15.39	25.59	23.93	28.65	22.53	4	7.2
7	DACH 63C36 BGII	24.49	23.66	22.21	21.04	14.05	17.47	25.27	19.73	26.47	21.60	7	2.8
8	US 704 BG II (ZC 2)	20.37	24.21	16.96	9.24	9.07	15.06	21.38	19.22	21.02	17.39	13	-17.3
9	ARCH 777 BG II (ZC 1)	22.77	16.57	24.33	25.04	12.35	16.78	21.09	23.31	26.97	21.02	9	0.0
10	ARCH 2526 BGII	26.05	22.65	24.26	21.98	14.26	18.63	27.29	19.34	25.95	22.27	5	5.9
11	US 752 BGII	21.10	20.78	26.39	19.00	10.97	19.79	27.78	22.83	29.86	22.06	6	4.9
12	DACH 54C45 BGII	24.11	20.42	26.23	20.25	13.60	15.18	26.47	20.16	23.80	21.14	8	0.5
13	ARCH 777 BG II (ZC 1) (normal)	20.33	14.23	-	18.98	14.09	22.65	23.19	20.59	14.35	18.55	12	-11.7
	CD @ 5%	2.29	3.53	5.17	2.74	2.94	2.32			19.54			
	CV%	5.80	10.10	12.92	8.17	13.18	7.36			4.39			



Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions-Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
ARCH 2528 BGII	7.02	4.71	-	5.90	2.17	0.00	3.96	BETL
YASH-8888 BG II	4.12	6.07	-	6.59	1.92	0.00	3.74	BETL
SP 7715 BG II	5.33	4.53	-	6.77	1.96	0.00	3.72	BETL
NCS 9495 Bt2	3.14	3.69	-	5.92	2.11	0.00	2.97	BETL
YASH-2222 BG II	3.81	6.93	-	6.51	1.74	0.00	3.80	BETL
PCH 9621 Bt2	7.93	5.87	-	6.55	1.89	0.00	4.45	BETL
DACH 63C36 BGII	3.97	5.80	-	6.73	2.01	0.00	3.70	BETL
US 704 BG II (ZC 2)	4.32	4.69	-	6.99	1.42	0.00	3.48	BETL
ARCH 777 BG II (ZC 1)	2.55	4.71	-	6.92	1.66	0.00	3.17	BETL
ARCH 2526 BGII	3.91	4.40	-	6.39	1.47	0.00	3.23	BETL
US 752 BGII	2.78	3.42	-	6.49	2.00	0.00	2.94	BETL
DACH 54C45 BGII	4.17	7.07	-	7.02	1.48	0.00	3.95	BETL
ARCH 777 BG II (ZC 1) (normal)	5.96	6.13	-	-	1.58	0.00	3.42	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	3.24	5.60	0.80	1.36	1.29	5.78	3.01	BETL
YASH-8888 BG II	1.73	5.18	1.09	1.21	1.04	9.55	3.30	BETL
SP 7715 BG II	1.89	3.11	1.24	1.17	0.98	6.44	2.47	BETL
NCS 9495 Bt2	2.27	2.18	1.18	0.86	1.51	5.55	2.26	BETL
YASH-2222 BG II	1.29	2.80	1.33	0.94	0.93	9.11	2.74	BETL
PCH 9621 Bt2	3.34	5.62	1.49	1.95	1.07	7.67	3.52	BETL
DACH 63C36 BGII	1.80	2.33	1.31	0.81	0.67	6.78	2.28	BETL
US 704 BG II (ZC 2)	2.28	2.58	1.13	0.49	0.60	8.67	2.62	BETL
ARCH 777 BG II (ZC 1)	1.52	1.91	0.82	0.84	0.69	7.22	2.17	BETL
ARCH 2526 BGII	2.52	2.16	1.11	0.99	0.98	6.56	2.39	BETL
US 752 BGII	2.64	1.73	0.60	0.82	0.64	6.00	2.07	BETL
DACH 54C45 BGII	2.49	2.31	0.44	0.90	0.78	8.22	2.52	BETL
ARCH 777 BG II (ZC 1) (normal)	3.24	1.42	-	-	0.84	5.11	2.66	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions - JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	I	I	II	I	II	II	II	
YASH-8888 BG II	I	I	II	I	I	III	II	
SP 7715 BG II	I	II	II	I	I	II	II	
NCS 9495 Bt2	I	I	II	I	II	II	II	
YASH-2222 BG II	I	I	II	I	I	III	II	
PCH 9621 Bt2	I	II	II	II	I	III	II	
DACH 63C36 BGII	I	I	II	I	I	II	I	
US 704 BG II (ZC 2)	I	I	I	I	I	III	I	
ARCH 777 BG II (ZC 1)	I	I	I	I	I	III	I	
ARCH 2526 BGII	I	I	II	I	I	II	I	
US 752 BGII	I	I	I	I	I	II	I	
DACH 54C45 BGII	I	I	I	I	I	III	I	
ARCH 777 BG II (ZC 1) (normal)	I	I	-	-	I	II	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	13.78	15.58	1.27	0.20	4.89	0.00	5.95	BETL
YASH-8888 BG II	7.30	9.73	1.02	0.18	5.44	0.00	3.95	BETL
SP 7715 BG II	7.83	10.44	1.20	0.39	3.31	0.00	3.86	BETL
NCS 9495 Bt2	8.23	11.27	1.60	0.22	4.84	0.00	4.36	BETL
YASH-2222 BG II	6.43	16.38	1.18	0.25	3.80	0.00	4.67	BETL
PCH 9621 Bt2	14.10	11.38	0.93	0.35	3.09	0.00	4.97	BETL
DACH 63C36 BGII	7.70	16.69	1.18	0.32	1.69	0.00	4.59	BETL
US 704 BG II (ZC 2)	8.85	10.69	1.09	0.19	2.00	0.00	3.80	BETL
ARCH 777 BG II (ZC 1)	6.96	11.36	1.18	0.12	3.31	0.00	3.82	BETL
ARCH 2526 BGII	8.26	10.98	1.33	0.25	4.40	0.00	4.20	BETL
US 752 BGII	7.71	12.33	0.93	0.31	4.89	0.00	4.36	BETL
DACH 54C45 BGII	8.42	10.96	1.00	0.41	2.47	0.00	3.87	BETL
ARCH 777 BG II (ZC 1) (normal)	11.49	10.80	-	-	5.11	0.00	6.85	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	1.92	0.51	3.00	1.31	0.31	2.22	1.55	BETL
YASH-8888 BG II	1.41	0.42	2.98	1.32	0.36	5.67	2.03	BETL
SP 7715 BG II	1.38	0.44	2.69	1.26	0.38	2.78	1.49	BETL
NCS 9495 Bt2	1.40	0.38	2.67	1.42	0.20	1.89	1.33	BETL
YASH-2222 BG II	1.28	0.49	2.34	1.44	0.29	5.22	1.85	BETL
PCH 9621 Bt2	1.75	0.62	2.29	1.47	0.27	4.22	1.77	BETL
DACH 63C36 BGII	1.62	0.44	2.42	1.47	0.20	3.67	1.64	BETL
US 704 BG II (ZC 2)	1.51	0.56	2.40	1.33	0.16	4.78	1.79	BETL
ARCH 777 BG II (ZC 1)	1.35	0.38	2.33	1.16	0.20	4.00	1.57	BETL
ARCH 2526 BGII	1.90	0.58	2.33	1.36	0.18	3.22	1.60	BETL
US 752 BGII	2.07	0.47	2.64	1.38	0.24	2.45	1.54	BETL
DACH 54C45 BGII	2.14	0.47	2.33	1.18	0.16	4.33	1.77	BETL
ARCH 777 BG II (ZC 1) (normal)	2.39	0.27	-	-	0.24	1.67	1.14	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
ARCH 2528 BGII	0.63	0.98	-	0.06	2.22	0.17	0.81	
YASH-8888 BG II	0.59	1.16	-	0.08	1.67	0.14	0.73	
SP 7715 BG II	0.62	0.76	-	0.04	1.69	0.14	0.65	
NCS 9495 Bt2	0.61	0.60	-	0.03	2.07	0.18	0.70	
YASH-2222 BG II	0.72	0.93	-	0.07	1.38	0.16	0.65	
PCH 9621 Bt2	0.94	0.91	-	0.11	1.63	0.17	0.75	
DACH 63C36 BGII	0.71	1.40	-	0.09	1.82	0.16	0.83	
US 704 BG II (ZC 2)	0.85	1.38	-	0.11	0.89	0.20	0.69	
ARCH 777 BG II (ZC 1)	0.75	0.78	-	0.12	1.29	0.18	0.62	
ARCH 2526 BGII	0.69	0.89	-	0.14	1.04	0.20	0.59	
US 752 BGII	0.68	1.27	-	0.03	1.80	0.17	0.79	
DACH 54C45 BGII	0.70	1.44	-	0.05	1.18	0.18	0.71	
ARCH 777 BG II (ZC 1) (normal)	0.85	1.36	-	-	1.36	0.18	0.94	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	0.87	0.22	1.44	0.00	0.22	0.00	0.46	BETL
YASH-8888 BG II	0.57	0.56	1.02	0.00	0.11	0.00	0.38	BETL
SP 7715 BG II	0.87	0.78	2.88	0.00	0.11	0.00	0.77	BETL
NCS 9495 Bt2	0.38	0.11	1.67	0.00	0.00	0.00	0.36	BETL
YASH-2222 BG II	0.27	0.56	2.48	0.00	0.00	0.00	0.55	BETL
PCH 9621 Bt2	0.82	0.33	1.98	0.00	0.11	0.00	0.54	BETL
DACH 63C36 BGII	0.38	0.67	1.94	0.00	0.22	0.00	0.54	BETL
US 704 BG II (ZC 2)	0.38	0.78	1.12	0.00	0.56	0.00	0.47	BETL
ARCH 777 BG II (ZC 1)	0.18	0.22	1.20	0.00	0.11	0.00	0.28	BETL
ARCH 2526 BGII	0.38	0.56	0.82	0.00	0.11	0.00	0.31	BETL
US 752 BGII	0.38	0.33	2.13	0.00	0.00	0.00	0.47	BETL
DACH 54C45 BGII	0.82	0.44	1.53	0.00	0.22	0.00	0.50	BETL
ARCH 777 BG II (ZC 1) (normal)	1.19	0.22	-	0.00	0.33	0.00	0.35	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	9.32	4.44	15.56	0.00	6.67	0.00	6.00	
YASH-8888 BG II	4.35	6.67	11.11	0.00	2.22	0.00	4.06	
SP 7715 BG II	6.91	10.00	31.11	0.00	1.11	0.00	8.19	
NCS 9495 Bt2	2.03	5.00	17.78	3.33	1.11	0.00	4.87	
YASH-2222 BG II	2.03	6.11	28.89	0.00	0.00	0.00	6.17	
PCH 9621 Bt2	8.59	5.56	21.11	0.00	5.56	0.00	6.80	
DACH 63C36 BGII	3.16	7.22	21.11	6.67	4.44	0.00	7.10	
US 704 BG II (ZC 2)	2.03	8.33	12.22	0.00	6.67	0.00	4.88	
ARCH 777 BG II (ZC 1)	2.03	5.00	13.33	3.33	2.22	0.00	4.32	
ARCH 2526 BGII	1.15	8.33	8.89	0.00	1.11	0.00	3.25	
US 752 BGII	2.03	6.67	23.33	0.00	1.11	0.00	5.52	
DACH 54C45 BGII	8.59	6.67	16.67	0.00	2.22	0.00	5.69	
ARCH 777 BG II (ZC 1) (normal)	9.49	3.33	-	0.00	5.56	0.00	3.68	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	10.23	4.67	17.75	11.05	6.86	0.00	8.43	
YASH-8888 BG II	5.67	3.33	13.15	11.16	1.85	0.00	5.86	
SP 7715 BG II	7.90	2.67	34.97	15.66	1.97	0.00	10.53	
NCS 9495 Bt2	5.61	3.33	19.52	9.66	0.85	0.00	6.50	
YASH-2222 BG II	4.14	4.67	31.30	11.42	0.00	0.00	8.59	
PCH 9621 Bt2	11.93	4.67	19.08	13.01	6.51	0.00	9.20	
DACH 63C36 BGII	6.24	2.67	24.04	7.73	5.25	0.00	7.66	
US 704 BG II (ZC 2)	5.41	3.33	13.66	12.82	8.98	0.00	7.37	
ARCH 777 BG II (ZC 1)	4.92	4.00	14.94	16.13	3.15	0.00	7.19	
ARCH 2526 BGII	4.79	4.67	10.77	9.47	1.88	0.00	5.26	
US 752 BGII	5.13	4.00	21.65	8.23	0.74	0.00	6.63	
DACH 54C45 BGII	9.82	4.67	19.05	9.04	3.59	0.00	7.70	
ARCH 777 BG II (ZC 1) (normal)	10.44	4.00	-	13.17	7.06	0.00	6.93	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	4.98	1.83	5.10	3.45	2.93	0.00	3.05	
YASH-8888 BG II	3.64	2.00	5.33	4.77	0.80	0.00	2.76	
SP 7715 BG II	4.09	1.83	12.05	5.68	0.84	0.00	4.08	
NCS 9495 Bt2	2.68	2.17	6.65	3.57	0.40	0.00	2.58	
YASH-2222 BG II	1.96	2.67	9.63	3.31	0.00	0.00	2.93	
PCH 9621 Bt2	5.83	2.17	5.22	5.48	2.69	0.00	3.57	
DACH 63C36 BGII	3.51	1.67	7.83	2.62	2.14	0.00	2.96	
US 704 BG II (ZC 2)	2.38	2.67	4.85	4.97	3.60	0.00	3.08	
ARCH 777 BG II (ZC 1)	2.38	2.33	4.62	7.83	1.35	0.00	3.08	
ARCH 2526 BGII	2.67	2.50	3.55	2.63	0.78	0.00	2.02	
US 752 BGII	2.96	2.33	6.69	3.64	0.37	0.00	2.67	
DACH 54C45 BGII	4.61	2.83	5.98	4.26	1.57	0.00	3.21	
ARCH 777 BG II (ZC 1) (normal)	5.37	1.83	-	5.41	2.95	0.00	3.11	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Protected Conditions – No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
ARCH 2528 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
YASH-8888 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
SP 7715 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
NCS 9495 Bt2	5.00	3.00	5.00	-	3.00	4.00	4.00	
YASH-2222 BG II	5.00	3.00	5.00	-	3.00	4.00	4.00	
PCH 9621 Bt2	5.00	3.00	5.00	-	3.00	4.00	4.00	
DACH 63C36 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
US 704 BG II (ZC 2)	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 777 BG II (ZC 1)	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 2526 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
US 752 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
DACH 54C45 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 777 BG II (ZC 1) (normal)	5.00	3.00	5.00	-	3.00	4.00	4.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 13 (a): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions																	
			Surat				Bharuch				CICR, Nagpur									
			BLB		ALS		BLB		ALS		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	53061	ARCH 2528 BGII	9.8	R	0.0	DF	0.0	DF	3.0	R	20.0	R	0.0	DF	21.7	R	42.5	MR	15.8	R
11	53062	YASH-8888 BG II	4.2	R	0.0	DF	0.0	DF	3.3	R	20.8	R	0.0	DF	16.6	R	36.3	MR	18.3	R
1	53063	SP 7715 BG II	11.8	R	0.0	DF	4.8	R	5.8	R	25.8	MR	13.8	R	22.2	R	32.5	MR	44.2	MR
12	53064	NCS 9495 Bt2	12.8	R	0.0	DF	3.3	R	3.0	R	25.2	MR	0.0	DF	8.3	R	34.7	MR	30.8	MR
8	53065	YASH-2222 BG II	11.5	R	0.0	DF	3.3	R	3.8	R	11.7	R	18.3	R	9.4	R	35.8	MR	25.8	MR
2	53066	PCH 9621 Bt2	22.2	R	0.0	DF	5.5	R	2.5	R	19.2	R	16.7	R	6.0	R	43.3	MR	10.8	R
5	53067	DACH 63C36 BGII	23.2	DF	0.0	DF	3.2	R	0.0	DF	19.2	R	0.0	DF	16.3	R	36.9	MR	17.5	R
3	53068	US 704 BG II (ZC 2)	0.0	DF	3.0	R	4.8	R	2.0	R	13.3	R	0.0	DF	16.7	R	38.3	MR	30.8	MR
10	53069	ARCH 777 BG II (ZC 1)	7.2	R	0.0	DF	3.3	R	2.0	R	15.5	R	2.8	R	11.1	R	38.3	MR	27.5	MR
7	53070	ARCH 2526 BGII	3.8	R	2.8	R	3.3	R	3.3	R	16.6	R	0.0	DF	6.4	R	36.7	MR	13.3	R
4	53071	US 752 BGII	19.2	R	0.0	DF	2.5	R	1.7	R	8.4	R	0.0	DF	8.3	R	39.7	MR	24.2	R
9	53072	DACH 54C45 BGII	7.5	R	0.0	DF	2.5	R	7.2	R	14.2	R	0.0	DF	0.0	DF	40.8	MR	7.9	R



Table 13(b): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions											
			Nanded						PDKV, Akola					
			CLS		BLB		GM		BLB		GM		MLS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	53061	ARCH 2528 BGII	5.7	R	2.6	R	6.7	R	16.3	R	17.5	R	27.5	MR
11	53062	YASH-8888 BG II	6.7	R	2.0	R	6.4	R	6.3	R	20.0	R	22.5	R
1	53063	SP 7715 BG II	5.2	R	3.7	R	7.1	R	21.3	R	22.5	R	23.8	R
12	53064	NCS 9495 Bt2	4.4	R	0.0	DF	7.5	R	7.5	R	26.3	MR	21.3	R
8	53065	YASH-2222 BG II	5.8	R	5.3	R	8.8	R	10.0	R	21.3	R	17.5	R
2	53066	PCH 9621 Bt2	6.3	R	5.0	R	5.8	R	5.0	R	25.0	R	22.5	R
5	53067	DACH 63C36 BGII	0.0	DF	5.4	R	9.0	R	3.8	R	26.3	MR	15.0	R
3	53068	US 704 BG II (ZC 2)	4.4	R	5.2	R	7.1	R	6.3	R	20.0	R	28.8	MR
10	53069	ARCH 777 BG II (ZC 1)	5.9	R	5.6	R	8.3	R	8.8	R	27.5	MR	20.0	R
7	53070	ARCH 2526 BGII	5.1	R	0.0	DF	6.1	R	5.0	R	25.0	R	21.3	R
4	53071	US 752 BGII	0.0	DF	0.0	DF	8.8	R	6.3	R	22.5	R	18.8	R
9	53072	DACH 54C45 BGII	0.0	DF	0.0	DF	8.8	R	3.8	R	23.8	R	23.8	R

Table 13 (c): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions			
			Ankur , Dongargaon			
			FFS			BLB
			PDI	DR	PDI	DR
6	53061	ARCH 2528 BGII	10.0	R	0.0	DF
11	53062	YASH-8888 BG II	41.7	S	0.0	DF
1	53063	SP 7715 BG II	18.3	MR	0.0	DF
12	53064	NCS 9495 Bt2	35.0	MS	0.0	DF
8	53065	YASH-2222 BG II	10.0	R	0.0	DF
2	53066	PCH 9621 Bt2	31.7	MS	0.0	DF
5	53067	DACH 63C36 BGII	10.0	R	0.0	DF
3	53068	US 704 BG II (ZC 2)	0.0	DF	0.0	DF
10	53069	ARCH 777 BG II (ZC 1)	16.7	MR	0.0	DF
7	53070	ARCH 2526 BGII	10.0	R	0.0	DF
4	53071	US 752 BGII	18.3	MR	0.0	DF
9	53072	DACH 54C45 BGII	10.0	R	0.0	DF



Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pests

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions-Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	9.73	5.93	-	2.53	10.53	0.00	5.75	BETL
YASH-8888 BG II	7.00	10.27	-	2.40	8.27	0.00	5.59	BETL
SP 7715 BG II	8.53	5.47	-	2.53	8.53	0.00	5.01	BETL
NCS 9495 Bt2	5.00	4.93	-	2.38	9.93	0.00	4.45	BETL
YASH-2222 BG II	5.20	14.27	-	2.87	5.73	0.00	5.61	BETL
PCH 9621 Bt2	11.07	13.20	-	5.42	8.80	0.00	7.70	BETL
DACH 63C36 BGII	5.00	10.20	-	6.42	10.33	0.00	6.39	BETL
US 704 BG II (ZC 2)	5.40	7.33	-	3.78	3.27	0.00	3.96	BETL
ARCH 777 BG II (ZC 1)	4.00	8.20	-	4.29	5.53	0.00	4.40	BETL
ARCH 2526 BGII	4.40	9.80	-	3.16	3.33	0.00	4.14	BETL
US 752 BGII	3.60	5.07	-	2.96	8.60	0.00	4.04	BETL
DACH 54C45 BGII	4.67	16.80	-	1.98	3.73	0.00	5.44	BETL
ARCH 777 BG II (ZC 1) (normal)	7.87	11.07	-	-	5.00	0.00	5.98	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions –
Leafhopper**

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	4.87	7.27	-	2.33	3.87	6.22	4.91	BETL
YASH-8888 BG II	2.20	5.33	-	1.20	3.33	10.44	4.50	BETL
SP 7715 BG II	2.40	4.53	-	1.38	3.13	7.00	3.69	BETL
NCS 9495 Bt2	2.60	3.20	-	1.33	4.33	6.11	3.52	BETL
YASH-2222 BG II	1.67	3.40	-	1.20	2.73	9.78	3.76	BETL
PCH 9621 Bt2	4.87	8.07	-	1.04	3.60	8.78	5.27	BETL
DACH 63C36 BGII	2.20	3.27	-	1.04	2.27	7.78	3.31	BETL
US 704 BG II (ZC 2)	2.27	4.07	-	0.84	1.93	9.56	3.73	BETL
ARCH 777 BG II (ZC 1)	1.87	3.00	-	0.89	2.40	8.44	3.32	BETL
ARCH 2526 BGII	2.93	3.27	-	0.93	2.87	7.22	3.44	BETL
US 752 BGII	3.27	2.40	-	1.33	1.93	6.33	3.05	BETL
DACH 54C45 BGII	2.73	3.40	-	0.84	2.47	9.11	3.71	BETL
ARCH 777 BG II (ZC 1) (normal)	3.87	2.33	-	-	2.80	5.67	3.67	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions - JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	I	I	-	I	III	II	II	
YASH-8888 BG II	I	I	-	I	III	IV	II	
SP 7715 BG II	I	I	-	II	II	III	II	
NCS 9495 Bt2	I	II	-	I	III	II	II	
YASH-2222 BG II	I	I	-	I	II	IV	II	
PCH 9621 Bt2	I	II	-	I	II	III	II	
DACH 63C36 BGII	I	I	-	I	II	III	II	
US 704 BG II (ZC 2)	I	I	-	I	II	IV	II	
ARCH 777 BG II (ZC 1)	I	I	-	0	II	III	I	
ARCH 2526 BGII	I	II	-	0	II	III	II	
US 752 BGII	I	I	-	I	II	II	I	
DACH 54C45 BGII	I	I	-	I	II	III	II	
ARCH 777 BG II (ZC 1) (normal)	I	I	-	-	II	II	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions –
Thrips**

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	19.40	21.47	-	0.89	16.47	0.00	11.64	BETL
YASH-8888 BG II	10.60	12.33	-	0.27	19.00	0.00	8.44	BETL
SP 7715 BG II	11.33	15.07	-	0.38	12.53	0.00	7.86	BETL
NCS 9495 Bt2	10.13	18.70	-	0.47	16.33	0.00	9.13	BETL
YASH-2222 BG II	7.67	20.00	-	0.40	12.60	0.00	8.13	BETL
PCH 9621 Bt2	20.20	14.80	-	0.33	12.93	0.00	9.65	BETL
DACH 63C36 BGII	10.40	21.33	-	0.42	7.67	0.00	7.96	BETL
US 704 BG II (ZC 2)	12.53	13.60	-	0.27	7.73	0.00	6.83	BETL
ARCH 777 BG II (ZC 1)	8.33	18.07	-	0.27	12.93	0.00	7.92	BETL
ARCH 2526 BGII	11.53	17.53	-	0.31	15.40	0.00	8.96	BETL
US 752 BGII	10.67	20.27	-	0.38	16.13	0.00	9.49	BETL
DACH 54C45 BGII	10.87	16.00	-	0.29	9.60	0.00	7.35	BETL
ARCH 777 BG II (ZC 1) (normal)	14.87	16.07	-	-	19.60	0.00	12.63	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	2.73	0.73	-	0.82	0.93	2.67	1.58	BETL
YASH-8888 BG II	1.73	0.53	-	0.98	1.00	6.33	2.12	BETL
SP 7715 BG II	1.93	0.60	-	0.98	1.13	3.33	1.60	BETL
NCS 9495 Bt2	1.67	0.53	-	0.64	0.60	2.22	1.13	BETL
YASH-2222 BG II	1.73	0.60	-	0.71	0.80	6.00	1.97	BETL
PCH 9621 Bt2	2.27	0.80	-	0.71	0.93	5.00	1.94	BETL
DACH 63C36 BGII	1.73	0.60	-	0.56	0.67	4.22	1.56	BETL
US 704 BG II (ZC 2)	1.53	0.73	-	0.47	0.47	5.55	1.75	BETL
ARCH 777 BG II (ZC 1)	1.80	0.60	-	0.82	0.60	4.67	1.70	BETL
ARCH 2526 BGII	2.67	0.80	-	0.58	0.53	3.89	1.69	BETL
US 752 BGII	2.20	0.53	-	0.82	0.67	3.00	1.44	BETL
DACH 54C45 BGII	2.80	0.60	-	0.78	0.47	5.22	1.97	BETL
ARCH 777 BG II (ZC 1) (normal)	2.87	0.20	-	-	0.80	2.11	1.49	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	0.93	1.13	-	0.00	4.18	0.21	1.29	
YASH-8888 BG II	0.67	1.27	-	0.09	3.24	0.23	1.10	
SP 7715 BG II	0.67	0.73	-	0.04	3.49	0.18	1.02	
NCS 9495 Bt2	1.00	0.60	-	0.02	3.96	0.22	1.16	
YASH-2222 BG II	1.07	1.40	-	0.00	2.82	0.20	1.10	
PCH 9621 Bt2	1.07	1.20	-	0.00	3.44	0.20	1.18	
DACH 63C36 BGII	0.80	1.67	-	0.00	3.80	0.21	1.30	
US 704 BG II (ZC 2)	0.87	1.33	-	0.20	1.80	0.23	0.89	
ARCH 777 BG II (ZC 1)	0.80	0.73	-	0.07	2.60	0.23	0.89	
ARCH 2526 BGII	0.80	1.07	-	0.09	2.11	0.23	0.86	
US 752 BGII	0.93	1.67	-	0.02	3.53	0.20	1.27	
DACH 54C45 BGII	0.80	2.20	-	0.07	2.42	0.21	1.14	
ARCH 777 BG II (ZC 1) (normal)	0.80	1.60	-	-	2.73	0.21	1.34	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 Plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.27	0.00	0.05	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	0.27	0.00	0.07	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions –Spotted/
Spiny Bollworms**

Name of Entry	Spotted Bollworms (No./5 Plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5 Plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	0.13	0.00	0.03	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	1.00	0.67	-	0.00	1.67	0.00	0.67	BETL
YASH-8888 BG II	0.67	0.67	-	0.00	0.33	0.00	0.33	BETL
SP 7715 BG II	1.00	1.00	-	0.00	0.33	0.00	0.47	BETL
NCS 9495 Bt2	0.33	0.33	-	0.00	0.00	0.00	0.13	BETL
YASH-2222 BG II	0.33	0.67	-	0.00	0.00	0.00	0.20	BETL
PCH 9621 Bt2	1.00	0.67	-	0.00	1.33	0.00	0.60	BETL
DACH 63C36 BGII	0.67	1.00	-	0.00	1.67	0.00	0.67	BETL
US 704 BG II (ZC 2)	0.67	1.00	-	0.00	3.00	0.00	0.93	BETL
ARCH 777 BG II (ZC 1)	0.33	0.00	-	0.00	1.33	0.00	0.33	BETL
ARCH 2526 BGII	0.33	0.67	-	0.00	0.67	0.00	0.33	BETL
US 752 BGII	0.67	0.67	-	0.00	0.00	0.00	0.27	BETL
DACH 54C45 BGII	1.00	0.67	-	0.00	1.67	0.00	0.67	BETL
ARCH 777 BG II (ZC 1) (normal)	1.33	0.33	-	-	2.67	0.00	1.08	AETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	0.00	0.00	-	0.00	1.27	0.00	0.25	BETL
YASH-8888 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
SP 7715 BG II	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
NCS 9495 Bt2	0.00	0.00	-	0.00	0.93	0.00	0.19	BETL
YASH-2222 BG II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 9621 Bt2	0.00	0.00	-	0.00	1.60	0.00	0.32	BETL
DACH 63C36 BGII	0.00	0.00	-	0.00	1.27	0.00	0.25	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	1.73	0.00	0.35	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	1.00	0.00	0.20	BETL
ARCH 2526 BGII	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
US 752 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
DACH 54C45 BGII	0.00	0.00	-	0.00	1.33	0.00	0.27	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	1.67	0.00	0.42	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	10.00	6.67	-	0.00	23.33	0.00	8.00	BETL
YASH-8888 BG II	6.67	5.00	-	0.00	6.67	0.00	3.67	BETL
SP 7715 BG II	10.00	8.33	-	0.00	6.67	0.00	5.00	BETL
NCS 9495 Bt2	3.33	6.67	-	0.00	3.33	0.00	2.67	BETL
YASH-2222 BG II	3.33	8.33	-	0.00	0.00	0.00	2.33	BETL
PCH 9621 Bt2	13.33	11.67	-	0.00	23.33	0.00	9.67	BETL
DACH 63C36 BGII	6.67	8.33	-	0.00	20.00	0.00	7.00	BETL
US 704 BG II (ZC 2)	6.67	11.67	-	0.00	30.00	0.00	9.67	BETL
ARCH 777 BG II (ZC 1)	3.33	6.67	-	0.00	10.00	0.00	4.00	BETL
ARCH 2526 BGII	3.33	11.67	-	0.00	6.67	0.00	4.33	BETL
US 752 BGII	6.67	8.33	-	0.00	3.33	0.00	3.67	BETL
DACH 54C45 BGII	10.00	8.33	-	0.00	13.33	0.00	6.33	BETL
ARCH 777 BG II (ZC 1) (normal)	13.33	5.00	-	-	26.67	0.00	11.25	AETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	13.28	4.00	-	4.35	21.04	0.00	8.53	
YASH-8888 BG II	6.69	4.00	-	22.22	5.79	0.00	7.74	
SP 7715 BG II	9.22	2.00	-	4.17	6.00	0.00	4.28	
NCS 9495 Bt2	6.89	4.00	-	3.77	2.84	0.00	3.50	
YASH-2222 BG II	5.12	4.00	-	5.56	0.00	0.00	2.94	
PCH 9621 Bt2	12.30	4.00	-	0.00	21.14	0.00	7.49	
DACH 63C36 BGII	6.05	4.00	-	0.00	17.98	0.00	5.61	
US 704 BG II (ZC 2)	6.77	4.00	-	0.00	27.26	0.00	7.61	
ARCH 777 BG II (ZC 1)	5.16	4.00	-	0.00	8.61	0.00	3.55	
ARCH 2526 BGII	5.21	4.00	-	4.76	5.89	0.00	3.97	
US 752 BGII	5.73	4.00	-	7.14	2.98	0.00	3.97	
DACH 54C45 BGII	12.24	4.00	-	10.53	11.96	0.00	7.74	
ARCH 777 BG II (ZC 1) (normal)	14.23	4.00	-	-	24.02	0.00	10.56	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial H X H (Compact) trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
ARCH 2528 BGII	6.13	2.50	-	2.17	8.95	0.00	3.95	
YASH-8888 BG II	3.07	1.50	-	11.11	2.48	0.00	3.63	
SP 7715 BG II	4.75	1.00	-	2.08	2.56	0.00	2.08	
NCS 9495 Bt2	2.95	1.50	-	1.42	1.33	0.00	1.44	
YASH-2222 BG II	2.61	1.50	-	3.24	0.00	0.00	1.47	
PCH 9621 Bt2	6.25	2.00	-	0.00	8.72	0.00	3.39	
DACH 63C36 BGII	3.01	2.50	-	0.00	7.28	0.00	2.56	
US 704 BG II (ZC 2)	3.15	2.50	-	0.00	10.85	0.00	3.30	
ARCH 777 BG II (ZC 1)	2.41	2.50	-	0.00	3.67	0.00	1.72	
ARCH 2526 BGII	2.33	1.50	-	2.38	2.44	0.00	1.73	
US 752 BGII	2.89	1.50	-	5.36	1.49	0.00	2.25	
DACH 54C45 BGII	6.41	2.00	-	2.63	5.22	0.00	3.25	
ARCH 777 BG II (ZC 1) (normal)	7.49	2.50	-	-	10.03	0.00	5.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 13 (d): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions													
			Surat				Bharuch				Nanded					
			BLB		ALS		BLB		ALS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	53061	ARCH 2528 BGII	0.0	DF	0.0	DF	0.0	DF	2.5	R	7.8	R	7.0	R	7.0	R
11	53062	YASH-8888 BG II	0.0	DF	0.0	DF	0.0	DF	3.5	R	9.0	R	6.6	R	6.6	R
1	53063	SP 7715 BG II	0.0	DF	0.0	DF	4.5	R	5.5	R	6.7	R	6.9	R	6.9	R
12	53064	NCS 9495 Bt2	0.0	DF	0.0	DF	2.0	R	2.5	R	7.5	R	0.0	DF	0.0	DF
8	53065	YASH-2222 BG II	0.0	DF	6.5	R	2.5	R	3.0	R	7.8	R	8.7	R	8.7	R
2	53066	PCH 9621 Bt2	0.0	DF	0.0	DF	5.5	R	2.0	R	9.2	R	7.7	R	7.7	R
5	53067	DACH 63C36 BGII	0.0	DF	0.0	DF	1.5	R	0.0	DF	0.0	DF	9.1	R	9.1	R
3	53068	US 704 BG II (ZC 2)	0.0	DF	3.0	R	4.0	R	3.5	R	6.7	R	7.9	R	7.9	R
10	53069	ARCH 777 BG II (ZC 1)	0.0	DF	0.0	DF	3.0	R	1.5	R	9.2	R	7.7	R	7.7	R
7	53070	ARCH 2526 BGII	0.0	DF	3.5	R	3.5	R	4.0	R	5.9	R	0.0	DF	0.0	DF
4	53071	US 752 BGII	12.5	R	0.0	DF	1.5	R	1.5	R	0.0	DF	0.0	DF	0.0	DF
9	53072	DACH 54C45 BGII	0.0	DF	0.0	DF	2.5	R	5.5	R	0.0	DF	0.0	DF	0.0	DF



Table 13 (e): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions									
			CICR, Nagpur									
			FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
6	53061	ARCH 2528 BGII	24.1	R	2.8	R	29.9	MR	46.7	MR	20.0	R
11	53062	YASH-8888 BG II	27.2	MR	2.8	R	22.1	R	41.3	MR	21.3	R
1	53063	SP 7715 BG II	27.7	MR	17.4	R	29.7	MR	36.1	MR	48.0	MR
12	53064	NCS 9495 Bt2	27.7	MR	2.8	R	11.9	R	40.8	MR	36.0	MR
8	53065	YASH-2222 BG II	14.4	R	22.2	R	15.8	R	41.3	MR	28.6	MR
2	53066	PCH 9621 Bt2	22.2	R	22.2	R	13.3	R	49.1	MR	12.4	R
5	53067	DACH 63C36 BGII	24.1	R	5.5	R	21.3	R	41.5	MR	20.5	R
3	53068	US 704 BG II (ZC 2)	15.8	R	5.5	R	22.2	R	41.9	MR	36.0	MR
10	53069	ARCH 777 BG II (ZC 1)	18.6	R	8.3	R	16.6	R	43.5	MR	36.0	MR
7	53070	ARCH 2526 BGII	22.2	R	5.5	R	8.3	R	38.8	MR	19.3	R
4	53071	US 752 BGII	12.4	R	2.8	R	13.8	R	42.8	MR	26.9	MR
9	53072	DACH 54C45 BGII	18.0	R	2.8	R	8.3	R	44.3	MR	12.4	R



Advanced Evaluation Trial of Compact Intra-Hirsutum Bt Hybrids - Rainfed

Constitution of Trial

The trial was constituted with nine Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids at closer spacing and a zonal check hybrid at normal spacing as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	2	53081	GBCH 5094 BGII	Green Gold Seeds
2	6	53082	RCH 1119BGII	Rasi Seeds
3	9	53083	BIO 6910 BGII	Bioseed Reseach India
4	1	53084	US 704 BG II (ZC 2)	
5	11	53085	PCH 7533 Bt2	Prabhat Agri
6	3	53086	US 751 BGII	SeedWorks International
7	7	53087	C 9407 BG-II	Mahyco
8	4	53088	ARCH 777 BG II (ZC 1)	
9	8	53089	NCS 9954 Bt2	Nuziveedu Seed Limited
10	10	53090	KCH 9287 BGII	Kaveri Seed Co Ltd
11	5	53091	ACH 31-2 BGII	Ajeet Seed
12			ARCH 777 BG II (ZC 1) (normal)	

The trial was conducted in nine locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; ICAR-CICR, Nagpur; ARS, Banswara; Nanded; Aurangabad (Kaveri); Gangapur (Green Gold) and Yavatmal (Prabhat). As per the recommendation of the Monitoring Committee, the trial conducted at Yavatmal by Prabhat was treated as **Vitiated** and the data was not included in the report.

Spacing: 90 x 15 cm was followed for the coded entries and the zonal check hybrid has been included under recommended spacing.

Number of rows: 6 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Advanced Evaluation Trial of H X H hybrids**

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	98.3	76.8	97.5	103.7	89.5	97.0	116.2	85.0	95.5
2	RCH 1119BGII	103.7	79.7	77.0	104.7	99.7	100.0	116.0	91.7	96.6
3	BIO 6910 BGII	121.3	98.9	105.0	130.6	135.7	125.7	115.1	108.3	117.6
4	US 704 BG II (ZC 2)	122.3	101.7	115.9	140.9	123.3	128.0	115.1	103.3	118.8
5	PCH 7533 Bt2	119.3	108.3	110.4	123.9	112.5	122.3	114.9	98.3	113.7
6	US 751 BGII	119.0	101.9	106.7	134.2	125.1	123.7	118.6	95.0	115.5
7	C 9407 BG-II	125.0	103.9	110.7	125.5	128.1	143.3	117.1	118.3	121.5
8	ARCH 777 BG II (ZC 1)	113.3	101.0	101.3	117.3	123.8	136.7	116.8	101.7	114.0
9	NCS 9954 Bt2	118.3	88.8	103.1	124.9	117.5	128.3	116.2	106.7	113.0
10	KCH 9287 BGII	121.7	114.5	104.7	121.7	125.1	130.3	115.4	98.3	116.5
11	ACH 31-2 BGII	110.3	91.8	105.3	118.2	117.5	108.7	118.6	88.3	107.3
12	ARCH 777 BG II (ZC 1) (normal)	115.7	105.7	103.9	144.8	-	108.7	116.2	131.7	118.1
	CD @ 5%	14.9	22.6	12.4	23.4	8.8	13.9		13.2	
	CV%	7.6	13.9	7.0	11.1	17.5	6.7		7.6	



Number of monopodia in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	0.0	0.0	0.1	0.5	1.4	1.7	0.9	1.3	0.7
2	RCH 1119BGII	0.2	0.0	0.2	1.3	2.2	2.7	0.8	1.3	1.1
3	BIO 6910 BGII	0.0	0.0	0.5	1.1	1.2	0.7	0.6	1.0	0.6
4	US 704 BG II (ZC 2)	0.3	0.0	0.3	0.4	1.3	1.7	1.1	1.0	0.8
5	PCH 7533 Bt2	0.0	0.0	0.3	0.6	1.8	2.7	1.0	1.0	0.9
6	US 751 BGII	0.0	0.0	0.6	1.1	2.2	2.3	1.1	1.3	1.1
7	C 9407 BG-II	0.3	0.0	0.3	0.8	1.6	1.3	0.8	0.7	0.7
8	ARCH 777 BG II (ZC 1)	0.1	0.0	0.2	1.4	1.8	2.0	0.8	1.0	0.9
9	NCS 9954 Bt2	0.5	0.0	0.1	0.7	1.3	1.7	0.9	1.0	0.8
10	KCH 9287 BGII	0.5	0.0	0.3	0.7	1.3	1.3	0.9	0.3	0.7
11	ACH 31-2 BGII	0.0	0.0	0.2	0.7	1.0	2.3	0.9	1.0	0.8
12	ARCH 777 BG II (ZC 1) (normal)	0.6	0.1	1.1	1.6	-	2.3	1.0	1.7	1.2
	CD @ 5%	0.1		0.4	NS	0.2	0.9		0.6	
	CV%	35.6		17.4	47.5	9.2	28.3		34.7	



Number of sympodia in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	14.5	11.4	20.4	22.1	17.5	30.7	15.8	10.0	17.8
2	RCH 1119BGII	13.6	12.4	19.1	22.3	15.5	24.3	15.9	11.3	16.8
3	BIO 6910 BGII	13.9	11.5	21.1	25.3	20.5	21.3	14.2	11.3	17.4
4	US 704 BG II (ZC 2)	15.9	13.1	22.4	24.3	20.5	37.7	12.2	10.7	19.6
5	PCH 7533 Bt2	14.5	13.3	19.7	25.5	19.2	36.7	11.3	10.7	18.9
6	US 751 BGII	15.6	14.0	22.0	39.4	20.5	37.3	12.2	11.3	21.5
7	C 9407 BG-II	13.8	14.2	22.9	25.3	20.3	31.0	11.6	11.7	18.9
8	ARCH 777 BG II (ZC 1)	13.0	14.2	20.5	23.8	19.3	33.7	11.6	11.3	18.4
9	NCS 9954 Bt2	14.9	13.0	20.9	25.3	19.6	30.0	11.2	12.0	18.4
10	KCH 9287 BGII	12.4	12.6	22.2	24.2	19.1	30.0	11.7	11.6	18.0
11	ACH 31-2 BGII	15.1	12.8	18.1	23.4	17.9	33.3	12.2	11.3	18.0
12	ARCH 777 BG II (ZC 1) (normal)	16.5	17.5	21.2	26.0	-	34.7	12.6	15.0	20.5
	CD @ 5%	2.2	2.6	3.6	NS	2.5	6.6		2.0	
	CV%	8.9	12.0	10.2	27.9	7.8	12.2		10.1	



Boll weight (g) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	5.2	5.1	5.4	4.9	7.2	5.3	5.7	5.5
2	RCH 1119BGII	4.9	5.2	5.4	4.9	5.3	4.6	5.3	5.1
3	BIO 6910 BGII	5.0	4.6	5.1	5.0	6.0	4.5	5.3	5.1
4	US 704 BG II (ZC 2)	5.3	5.4	5.1	4.8	6.0	4.8	5.1	5.2
5	PCH 7533 Bt2	4.7	4.7	4.9	4.6	5.3	4.8	5.1	4.9
6	US 751 BGII	4.9	4.9	5.1	4.9	5.2	5.1	5.8	5.1
7	C 9407 BG-II	4.9	4.7	5.3	4.8	5.2	4.6	5.4	5.0
8	ARCH 777 BG II (ZC 1)	4.8	4.7	4.8	4.9	4.8	4.9	5.5	4.9
9	NCS 9954 Bt2	4.9	4.7	4.6	5.2	5.4	4.8	5.5	5.0
10	KCH 9287 BGII	5.2	5.1	5.0	5.0	7.6	5.0	5.6	5.5
11	ACH 31-2 BGII	4.2	4.5	4.8	3.9	5.6	4.6	5.2	4.7
12	ARCH 777 BG II (ZC 1) (normal)	4.6	4.7	5.5	4.7	-	5.1	5.1	5.0
	CD @ 5%	0.5	0.4	0.4	0.5	0.2	0.2	0.6	
	CV%	5.5	5.5	4.7	6.4	2.3	2.4	6.6	



Number of bolls / plant in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	8.5	6.0	11.9	13.8	14.4	24.3	17.0	13.0	13.6
2	RCH 1119BGII	8.2	7.1	10.9	13.7	18.0	22.0	13.9	11.3	13.1
3	BIO 6910 BGII	9.3	7.5	13.3	16.8	16.3	24.3	12.6	11.3	13.9
4	US 704 BG II (ZC 2)	6.0	5.1	13.1	8.5	17.6	24.7	12.4	12.0	12.4
5	PCH 7533 Bt2	8.0	7.6	13.8	13.6	15.6	26.0	12.2	9.7	13.3
6	US 751 BGII	7.1	5.8	13.4	10.3	19.1	25.3	11.3	13.3	13.2
7	C 9407 BG-II	11.5	7.1	15.2	17.7	20.0	26.3	18.2	16.3	16.5
8	ARCH 777 BG II (ZC 1)	10.5	7.2	14.3	14.6	17.7	23.0	17.2	15.3	15.0
9	NCS 9954 Bt2	8.7	6.4	11.8	13.5	18.5	23.7	17.4	13.0	14.1
10	KCH 9287 BGII	7.2	6.1	11.9	14.8	18.5	25.7	12.9	15.3	14.1
11	ACH 31-2 BGII	12.8	8.8	16.1	14.7	15.3	23.7	12.2	12.7	14.5
12	ARCH 777 BG II (ZC 1) (normal)	27.1	17.3	22.3	20.3	-	40.3	25.7	23.3	25.2
	CD @ 5%	1.4	1.6	2.5	4.6	3.3	6.3		2.3	
	CV%	8.2	12.2	10.3	19.0	11.2	14.1		9.8	



Number of bolls / sq.m. in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	63.0	44.2	123.7	102.7	267.7	210.0	96.3	129.7
2	RCH 1119BGII	61.0	52.3	128.2	102.5	242.7	198.0	84.0	124.1
3	BIO 6910 BGII	68.9	55.7	163.1	125.4	242.3	177.0	84.0	130.9
4	US 704 BG II (ZC 2)	44.4	37.5	158.8	63.7	220.7	183.0	88.9	113.9
5	PCH 7533 Bt2	59.5	56.2	143.2	101.6	265.7	187.0	71.6	126.4
6	US 751 BGII	52.8	42.7	140.4	76.7	272.0	188.0	98.8	124.5
7	C 9407 BG-II	84.9	52.3	144.2	131.9	261.0	185.0	121.0	140.0
8	ARCH 777 BG II (ZC 1)	77.5	53.5	142.2	109.0	249.7	128.0	113.6	124.8
9	NCS 9954 Bt2	64.7	47.1	135.9	101.1	244.7	160.0	96.3	121.4
10	KCH 9287 BGII	53.3	45.4	131.1	110.5	294.0	188.0	113.6	133.7
11	ACH 31-2 BGII	94.8	65.1	152.7	110.0	261.0	199.0	93.8	139.5
12	ARCH 777 BG II (ZC 1) (normal)	50.2	32.0	48.3	50.2	224.0	128.0	172.8	100.8
	CD @ 5%	8.2	7.1	18.6	27.3	20.8		17.2	
	CV%	7.5	8.8	8.1	16.3	4.8		9.8	



Lint Index (g) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	3.2	6.6	5.9	5.6	6.0	6.7	5.3	5.6	5.6
2	RCH 1119BGII	3.6	7.5	5.4	6.3	7.2	6.6	5.1	6.4	6.0
3	BIO 6910 BGII	3.7	6.9	5.0	6.3	6.3	6.1	5.1	5.9	5.7
4	US 704 BG II (ZC 2)	3.5	7.7	4.7	5.5	5.7	4.0	4.2	5.5	5.1
5	PCH 7533 Bt2	3.4	6.5	5.8	5.8	6.6	6.2	5.1	5.8	5.7
6	US 751 BGII	3.5	7.1	5.8	6.0	6.4	6.1	4.7	5.2	5.6
7	C 9407 BG-II	3.4	7.0	5.7	6.1	6.4	6.1	5.1	4.6	5.6
8	ARCH 777 BG II (ZC 1)	3.2	6.2	4.5	5.2	6.6	5.5	4.7	5.4	5.2
9	NCS 9954 Bt2	3.2	5.6	5.0	5.3	5.6	5.2	4.8	5.4	5.0
10	KCH 9287 BGII	3.9	6.7	5.7	6.2	6.3	6.2	5.4	6.7	5.9
11	ACH 31-2 BGII	3.4	6.5	5.6	5.6	5.5	5.5	4.3	5.5	5.2
12	ARCH 777 BG II (ZC 1) (normal)	3.3	6.5	5.2	4.9	-	6.0	5.1	5.1	5.2
	CD @ 5%	0.3	0.6	0.4		0.2	0.4		0.6	
	CV%	5.5	5.7	4.5		1.9	4.2		6.0	



Seed Index (g) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	9.0	11.5	11.6	11.0	11.8	12.0	9.7	10.3	10.9
2	RCH 1119BGII	9.1	11.2	11.1	11.2	11.4	11.0	9.7	10.7	10.7
3	BIO 6910 BGII	9.3	10.5	10.5	11.0	10.4	10.0	9.3	10.3	10.2
4	US 704 BG II (ZC 2)	9.5	11.7	10.6	11.0	10.9	11.0	9.0	9.7	10.4
5	PCH 7533 Bt2	8.7	10.0	9.4	9.7	10.0	10.0	9.7	9.7	9.7
6	US 751 BGII	9.3	11.3	10.8	10.4	11.6	11.0	9.7	9.3	10.4
7	C 9407 BG-II	8.7	9.8	11.7	10.1	10.7	10.0	9.3	8.3	9.8
8	ARCH 777 BG II (ZC 1)	8.8	10.2	10.0	10.4	10.0	10.0	9.7	10.7	10.0
9	NCS 9954 Bt2	9.5	10.8	11.6	10.9	11.4	10.0	9.7	10.3	10.5
10	KCH 9287 BGII	9.3	9.3	10.0	9.1	9.7	10.0	10.3	11.0	9.8
11	ACH 31-2 BGII	8.7	9.3	8.7	9.1	8.7	9.0	9.7	9.3	9.1
12	ARCH 777 BG II (ZC 1) (normal)	8.7	10.7	9.7	9.8	-	10.0	10.3	10.0	9.9
	CD @ 5%	0.6	0.7	0.6		0.3	0.5		0.9	
	CV%	4.1	4.0	3.4		1.5	2.9		5.4	



Ginning outturn (%) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	32.7	36.6	32.8	33.7	35.6	35.7	35.1	35.0	34.7
2	RCH 1119BGII	36.3	40.2	34.0	36.0	38.6	37.7	34.6	37.3	36.8
3	BIO 6910 BGII	35.6	39.5	38.8	36.3	37.6	38.0	35.0	36.4	37.2
4	US 704 BG II (ZC 2)	33.1	39.7	36.6	33.3	34.6	26.7	31.9	36.2	34.0
5	PCH 7533 Bt2	35.8	39.3	36.6	37.3	38.8	38.3	34.0	37.6	37.2
6	US 751 BGII	34.0	38.4	34.1	36.7	35.7	35.7	32.7	35.7	35.4
7	C 9407 BG-II	35.5	41.6	35.0	37.7	37.5	37.7	34.6	35.4	36.9
8	ARCH 777 BG II (ZC 1)	32.8	37.8	33.2	33.3	38.9	35.7	32.1	33.8	34.7
9	NCS 9954 Bt2	30.5	34.2	34.6	32.7	32.8	34.3	33.0	34.2	33.3
10	KCH 9287 BGII	38.3	41.8	37.9	40.7	38.8	38.3	34.9	37.9	38.6
11	ACH 31-2 BGII	36.1	40.9	36.3	38.0	38.3	38.0	31.9	36.9	37.1
12	ARCH 777 BG II (ZC 1) (normal)	35.0	37.7	35.0	33.3	-	37.3	31.7	33.9	34.8
	CD @ 5%	1.4	1.7	5.0		0.7	1.1		0.9	
	CV%	2.4	2.7	8.4		1.1	1.8		1.5	



Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	30.3	30.3	29.7	29.6	29.3	28.9	28.3	29.5
2	RCH 1119BGII	28.7	27.7	27.5	28.7	27.4	27.7	26.6	27.8
3	BIO 6910 BGII	27.8	28.0	27.7	27.0	28.0	27.2	27.2	27.6
4	US 704 BG II (ZC 2)	29.8	30.0	28.8	30.8	29.7	29.3	26.6	29.3
5	PCH 7533 Bt2	29.0	29.0	27.6	29.6	29.5	27.9	28.2	28.7
6	US 751 BGII	28.3	28.2	27.1	29.7	28.4	26.8	27.0	27.9
7	C 9407 BG-II	29.1	27.0	28.2	28.7	26.8	27.2	25.2	27.5
8	ARCH 777 BG II (ZC 1)	29.4	28.5	27.9	27.4	28.5	27.9	27.3	28.1
9	NCS 9954 Bt2	31.5	31.4	32.1	28.2	30.4	30.2	29.7	30.5
10	KCH 9287 BGII	27.8	26.6	28.0	30.4	29.1	26.5	26.0	27.8
11	ACH 31-2 BGII	29.1	28.3	28.6	29.8	27.8	28.2	27.2	28.4
12	ARCH 777 BG II (ZC 1) (normal)	29.6	28.2	28.6	29.9	-	27.1	27.5	28.5



Uniformity index under HVI Mode in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	84.0	89.0	86.0	84.0	85.0	83.0	82.0	84.7
2	RCH 1119BGII	85.0	85.0	84.0	84.0	83.0	83.0	82.0	83.7
3	BIO 6910 BGII	85.0	84.0	85.0	83.0	83.0	84.0	80.0	83.4
4	US 704 BG II (ZC 2)	84.0	87.0	86.0	85.0	84.0	84.0	82.0	84.6
5	PCH 7533 Bt2	84.0	86.0	84.0	85.0	84.0	83.0	83.0	84.1
6	US 751 BGII	85.0	86.0	84.0	84.0	83.0	83.0	81.0	83.7
7	C 9407 BG-II	85.0	85.0	85.0	85.0	85.0	84.0	81.0	84.3
8	ARCH 777 BG II (ZC 1)	84.0	84.0	84.0	84.0	83.0	82.0	83.0	83.4
9	NCS 9954 Bt2	83.0	85.0	85.0	84.0	86.0	83.0	81.0	83.9
10	KCH 9287 BGII	85.0	85.0	85.0	86.0	84.0	83.0	81.0	84.1
11	ACH 31-2 BGII	84.0	85.0	84.0	86.0	85.0	83.0	81.0	84.0
12	ARCH 777 BG II (ZC 1) (normal)	84.0	86.0	85.0	85.0	-	81.0	82.0	83.8



Micronaire under HVI Mode in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	4.8	4.9	5.1	4.7	4.8	4.8	4.4	4.8
2	RCH 1119BGII	4.9	5.4	5.2	4.8	5.0	4.8	4.6	5.0
3	BIO 6910 BGII	4.6	5.2	5.2	5.0	4.7	4.7	3.2	4.7
4	US 704 BG II (ZC 2)	3.9	4.2	3.8	3.5	4.0	3.7	4.0	3.9
5	PCH 7533 Bt2	4.9	5.2	5.3	4.7	5.0	4.8	4.6	4.9
6	US 751 BGII	5.0	5.4	5.4	5.2	5.1	5.1	4.1	5.0
7	C 9407 BG-II	5.0	5.4	5.2	5.2	5.3	4.9	3.9	5.0
8	ARCH 777 BG II (ZC 1)	4.3	4.8	4.4	5.6	4.3	4.3	3.7	4.5
9	NCS 9954 Bt2	4.6	5.0	4.8	5.6	3.8	4.4	4.0	4.6
10	KCH 9287 BGII	5.2	5.8	5.6	4.6	4.9	5.6	4.8	5.2
11	ACH 31-2 BGII	4.4	5.2	4.9	4.6	5.1	4.7	4.1	4.7
12	ARCH 777 BG II (ZC 1) (normal)	4.7	4.7	4.3	4.1	-	3.9	3.3	4.2



Tenacity under HVI Mode in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	29.7	32.9	31.1	28.8	30.3	28.7	28.6	30.0
2	RCH 1119BGII	29.1	29.9	29.8	27.7	27.7	29.9	26.6	28.7
3	BIO 6910 BGII	28.3	30.4	29.1	25.4	28.2	27.4	26.3	27.9
4	US 704 BG II (ZC 2)	29.0	28.5	25.9	28.5	28.2	28.4	27.5	28.0
5	PCH 7533 Bt2	29.4	30.4	29.2	28.6	29.3	28.9	27.8	29.1
6	US 751 BGII	28.2	29.7	26.7	26.1	26.5	27.4	28.1	27.5
7	C 9407 BG-II	29.6	29.1	27.5	28.4	27.5	28.9	26.3	28.2
8	ARCH 777 BG II (ZC 1)	30.5	31.4	28.7	25.4	29.3	29.6	28.2	29.0
9	NCS 9954 Bt2	30.3	33.8	30.9	26.4	31.8	30.7	29.2	30.4
10	KCH 9287 BGII	27.6	28.6	28.0	28.8	28.9	26.5	26.0	27.8
11	ACH 31-2 BGII	29.9	29.9	30.2	28.3	27.3	28.1	28.3	28.9
12	ARCH 777 BG II (ZC 1) (normal)	30.6	30.8	30.2	27.0	-	27.4	28.3	29.1



Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	21.70	8.95	8.14	17.06	17.89	26.58	25.57	17.98
2	RCH 1119BGII	16.67	14.15	7.08	21.17	15.99	22.22	23.29	17.22
3	BIO 6910 BGII	19.91	10.86	6.88	20.49	15.44	22.94	23.42	17.13
4	US 704 BG II (ZC 2)	3.00	4.58	5.42	6.93	11.78	18.16	19.33	9.89
5	PCH 7533 Bt2	14.76	12.99	10.41	18.91	17.80	22.91	21.58	17.05
6	US 751 BGII	11.07	5.56	4.25	12.91	14.37	21.96	22.39	13.22
7	C 9407 BG-II	19.63	10.27	5.68	18.57	11.95	17.85	22.85	15.26
8	ARCH 777 BG II (ZC 1)	17.44	9.92	7.78	17.55	19.80	18.05	20.65	15.88
9	NCS 9954 Bt2	18.92	8.64	8.80	15.19	15.91	17.44	20.42	15.05
10	KCH 9287 BGII	12.89	7.77	9.92	14.59	20.33	23.38	25.92	16.40
11	ACH 31-2 BGII	23.05	15.48	9.80	17.61	15.62	25.25	23.77	18.65
12	ARCH 777 BG II (ZC 1) (normal)	8.78	4.27	6.67	15.09	11.84	15.01	16.06	11.10
	CD @ 5%	3.72	1.93	2.25	3.95	2.17		2.64	
	CV%	14.04	12.34	17.42	14.30	8.05		7.05	



Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean
1	GBCH 5094 BGII	8.82	10.67	3.87	6.00	8.79	3.32	1.90	6.20
2	RCH 1119BGII	10.40	9.91	4.90	3.74	9.83	3.24	0.33	6.05
3	BIO 6910 BGII	11.73	11.82	3.74	3.46	10.11	4.07	1.52	6.64
4	US 704 BG II (ZC 2)	19.87	11.98	7.46	4.11	9.29	3.68	2.36	8.39
5	PCH 7533 Bt2	10.14	11.22	8.12	3.67	8.83	3.25	1.33	6.65
6	US 751 BGII	13.67	11.93	4.45	3.47	12.69	3.10	1.52	7.26
7	C 9407 BG-II	19.53	11.48	4.12	4.10	12.58	2.90	1.15	7.98
8	ARCH 777 BG II (ZC 1)	17.01	11.19	7.88	4.97	6.85	3.10	0.84	7.41
9	NCS 9954 Bt2	10.56	10.66	8.99	4.63	9.30	3.00	1.57	6.96
10	KCH 9287 BGII	13.70	13.61	8.47	4.12	7.72	3.65	1.54	7.54
11	ACH 31-2 BGII	15.14	10.84	6.42	6.80	10.44	3.08	1.24	7.71
12	ARCH 777 BG II (ZC 1) (normal)	13.20	8.72	7.42	6.68	9.59	2.32	0.85	6.97
	CD @ 5%	3.40	2.41	2.28	2.15	1.27		0.82	
	CV%	14.71	13.01	19.13	27.37	7.66		35.88	



Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of H X H hybrids

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Akola	Banswara	Gangapur (Green Gold)	Aurangabad (Kaveri)	Mean	Rank	% Inc over best check
1	GBCH 5094 BGII	30.52	19.62	12.08	23.07	25.69	26.68	29.90	27.47	24.38	2	7.4
2	RCH 1119BGII	27.07	24.05	12.04	24.91	20.91	25.82	25.46	23.62	22.99	7	1.3
3	BIO 6910 BGII	31.64	22.68	10.67	23.95	24.64	25.56	27.01	24.94	23.89	4	5.3
4	US 704 BG II (ZC 2)	22.87	16.57	12.93	11.04	16.01	21.07	21.83	21.68	18.00	12	-20.7
5	PCH 7533 Bt2	24.90	24.21	18.59	22.58	19.11	26.63	26.17	22.91	23.14	5	2.0
6	US 751 BGII	24.73	17.49	8.75	16.38	20.48	27.06	25.07	23.91	20.48	10	-9.7
7	C 9407 BG-II	39.16	21.74	9.85	22.68	22.04	24.52	20.75	24.00	23.09	6	1.8
8	ARCH 777 BG II (ZC 1)	34.45	21.11	15.71	22.51	18.42	26.66	21.15	21.49	22.69	8	0.0
9	NCS 9954 Bt2	29.48	19.30	17.84	19.81	22.90	25.21	20.43	22.00	22.12	9	-2.5
10	KCH 9287 BGII	26.59	21.38	18.43	18.71	25.59	28.05	27.03	27.45	24.15	3	6.5
11	ACH 31-2 BGII	38.19	26.32	16.28	24.41	25.70	26.06	28.33	25.01	26.29	1	15.9
12	ARCH 777 BG II (ZC 1) (normal)	21.99	12.99	14.15	21.78	-	21.43	17.33	16.90	18.08	11	-20.3
	CD @ 5%	5.72	3.71	3.75	2.88	3.39	2.65		2.62			
	CV%	11.53	10.85	15.76	8.11	9.06	6.08		6.61			



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
GBCH 5094 BGII	4.93	8.18	-	7.80	2.87	0.00	4.75	BETL
RCH 1119BGII	4.79	6.89	-	6.72	3.11	0.00	4.30	BETL
BIO 6910 BGII	6.91	6.04	-	6.93	3.11	0.00	4.60	BETL
US 704 BG II (ZC 2)	2.23	7.82	-	6.81	2.56	0.00	3.88	BETL
PCH 7533 Bt2	1.65	5.09	-	7.53	3.24	0.00	3.50	BETL
US 751 BGII	4.81	4.24	-	6.31	2.69	0.00	3.61	BETL
C 9407 BG-II	4.77	5.49	-	6.88	2.42	0.00	3.91	BETL
ARCH 777 BG II (ZC 1)	4.77	6.82	-	7.46	2.68	0.00	4.35	BETL
NCS 9954 Bt2	8.00	6.42	-	6.79	3.82	0.00	5.01	BETL
KCH 9287 BGII	2.92	5.18	-	6.90	3.09	0.00	3.62	BETL
ACH 31-2 BGII	3.52	5.38	-	7.15	2.62	0.00	3.73	BETL
ARCH 777 BG II (ZC 1) (normal)	4.76	5.93	-	7.10	2.49	0.00	4.06	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	1.91	4.60	0.93	0.97	0.53	5.11	2.34	BETL
RCH 1119BGII	1.57	3.40	0.67	0.92	0.71	6.56	2.30	BETL
BIO 6910 BGII	3.77	3.73	1.13	1.44	1.40	7.33	3.13	BETL
US 704 BG II (ZC 2)	0.72	3.29	0.80	1.00	0.62	9.22	2.61	BETL
PCH 7533 Bt2	0.59	2.49	1.04	1.59	1.11	5.78	2.10	BETL
US 751 BGII	1.38	3.42	1.24	0.84	1.00	5.11	2.17	BETL
C 9407 BG-II	1.59	5.87	0.98	1.25	1.02	7.78	3.08	BETL
ARCH 777 BG II (ZC 1)	1.58	3.60	1.16	1.27	0.87	5.55	2.34	BETL
NCS 9954 Bt2	3.53	6.31	1.31	2.07	1.47	6.89	3.60	BETL
KCH 9287 BGII	1.84	5.16	1.51	1.64	1.00	4.89	2.67	BETL
ACH 31-2 BGII	1.53	3.31	0.62	0.97	0.91	6.22	2.26	BETL
ARCH 777 BG II (ZC 1) (normal)	2.68	3.13	-	1.68	0.84	9.00	3.47	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	I	I	II	I	I	II	I	
RCH 1119BGII	I	I	I	I	I	II	I	
BIO 6910 BGII	I	I	II	I	I	III	II	
US 704 BG II (ZC 2)	I	I	II	I	I	III	II	
PCH 7533 Bt2	I	I	II	I	I	II	I	
US 751 BGII	I	I	II	I	I	II	I	
C 9407 BG-II	I	II	II	I	I	III	II	
ARCH 777 BG II (ZC 1)	I	I	II	I	I	II	I	
NCS 9954 Bt2	I	II	II	I	I	III	II	
KCH 9287 BGII	I	II	II	I	I	II	II	
ACH 31-2 BGII	I	I	I	I	I	III	I	
ARCH 777 BG II (ZC 1) (normal)	I	I	-	I	I	III	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	8.25	10.16	0.89	0.19	3.69	0.00	3.86	BETL
RCH 1119BGII	8.66	14.53	0.98	0.85	2.71	0.00	4.62	BETL
BIO 6910 BGII	15.59	10.31	0.93	0.39	5.36	0.00	5.43	BETL
US 704 BG II (ZC 2)	6.81	8.89	1.00	0.61	3.29	0.00	3.43	BETL
PCH 7533 Bt2	7.34	9.49	0.98	0.44	4.42	0.00	3.78	BETL
US 751 BGII	10.28	10.64	0.84	0.48	4.44	0.00	4.45	BETL
C 9407 BG-II	10.02	11.31	1.07	0.45	4.02	0.00	4.48	BETL
ARCH 777 BG II (ZC 1)	10.60	9.44	1.49	0.29	4.29	0.00	4.35	BETL
NCS 9954 Bt2	14.48	10.36	0.89	0.82	5.02	0.00	5.26	BETL
KCH 9287 BGII	8.60	9.40	0.91	0.28	3.22	0.00	3.73	BETL
ACH 31-2 BGII	9.63	9.20	0.73	0.36	3.69	0.00	3.93	BETL
ARCH 777 BG II (ZC 1) (normal)	12.43	9.60	-	0.58	3.41	0.00	5.20	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.94	0.49	1.84	1.31	0.20	2.22	1.17	BETL
RCH 1119BGII	1.93	0.56	1.76	1.08	0.18	3.33	1.47	BETL
BIO 6910 BGII	1.84	0.42	1.84	0.92	0.16	3.89	1.51	BETL
US 704 BG II (ZC 2)	1.05	0.27	1.73	1.20	0.11	5.22	1.60	BETL
PCH 7533 Bt2	0.71	0.31	1.69	1.15	0.22	2.67	1.12	BETL
US 751 BGII	1.26	0.51	2.00	1.08	0.24	1.89	1.16	BETL
C 9407 BG-II	1.70	0.33	1.82	1.38	0.29	4.78	1.72	BETL
ARCH 777 BG II (ZC 1)	2.40	0.47	1.49	0.87	0.31	2.55	1.35	BETL
NCS 9954 Bt2	2.92	0.51	1.36	0.88	0.18	4.11	1.66	BETL
KCH 9287 BGII	1.22	0.53	1.76	1.07	0.18	1.11	0.98	BETL
ACH 31-2 BGII	1.62	0.58	1.73	1.31	0.11	3.44	1.47	BETL
ARCH 777 BG II (ZC 1) (normal)	2.00	0.33	-	0.78	0.07	5.00	1.64	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
GBCH 5094 BGII	0.42	1.00	-	0.06	1.80	0.18	0.69	
RCH 1119BGII	0.50	0.98	-	0.05	1.82	0.18	0.71	
BIO 6910 BGII	0.67	1.07	-	0.05	1.69	0.17	0.73	
US 704 BG II (ZC 2)	0.55	1.44	-	0.05	1.64	0.16	0.77	
PCH 7533 Bt2	0.56	1.33	-	0.10	1.91	0.18	0.82	
US 751 BGII	0.71	1.00	-	0.04	1.84	0.18	0.76	
C 9407 BG-II	0.61	1.07	-	0.13	1.58	0.17	0.71	
ARCH 777 BG II (ZC 1)	0.58	1.09	-	0.07	1.53	0.16	0.69	
NCS 9954 Bt2	0.75	1.18	-	0.05	2.07	0.19	0.85	
KCH 9287 BGII	0.42	1.44	-	0.06	1.62	0.17	0.74	
ACH 31-2 BGII	0.55	1.51	-	0.01	1.62	0.18	0.77	
ARCH 777 BG II (ZC 1) (normal)	0.47	1.38	-	0.08	1.49	0.22	0.73	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./ 5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions –*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./ 5 plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.69	0.56	2.00	0.67	0.67	0.00	0.76	BETL
RCH 1119BGII	0.38	0.67	1.27	1.34	0.22	0.00	0.65	BETL
BIO 6910 BGII	0.91	0.56	2.02	0.34	0.22	0.00	0.67	BETL
US 704 BG II (ZC 2)	0.27	0.78	1.43	0.00	0.33	0.00	0.47	BETL
PCH 7533 Bt2	0.38	0.56	1.67	0.34	0.78	0.00	0.62	BETL
US 751 BGII	0.49	0.67	1.44	0.00	0.33	0.00	0.49	BETL
C 9407 BG-II	0.49	0.89	3.12	0.00	0.33	0.00	0.81	BETL
ARCH 777 BG II (ZC 1)	0.38	0.67	2.48	0.34	0.33	0.00	0.70	BETL
NCS 9954 Bt2	0.78	0.78	0.80	0.00	0.00	0.00	0.39	BETL
KCH 9287 BGII	0.49	0.44	2.37	0.00	0.44	0.00	0.62	BETL
ACH 31-2 BGII	0.69	0.33	1.46	0.00	0.11	0.00	0.43	BETL
ARCH 777 BG II (ZC 1) (normal)	0.69	0.22	-	0.00	0.22	0.00	0.23	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	5.93	5.56	23.33	6.66	5.56	0.00	7.84	BETL
RCH 1119BGII	4.53	8.89	14.44	13.33	2.22	0.00	7.24	BETL
BIO 6910 BGII	8.59	5.00	23.33	3.33	2.22	0.00	7.08	BETL
US 704 BG II (ZC 2)	1.15	9.44	13.33	0.00	3.33	0.00	4.54	BETL
PCH 7533 Bt2	2.50	5.00	17.78	6.66	6.67	0.00	6.43	BETL
US 751 BGII	4.53	8.89	15.56	0.00	3.33	0.00	5.38	BETL
C 9407 BG-II	3.73	8.89	33.33	3.33	3.33	0.00	8.77	BETL
ARCH 777 BG II (ZC 1)	3.73	8.33	25.56	6.66	3.33	0.00	7.94	BETL
NCS 9954 Bt2	6.69	7.78	8.89	3.33	0.00	0.00	4.45	BETL
KCH 9287 BGII	3.73	4.44	26.67	0.00	4.44	0.00	6.55	BETL
ACH 31-2 BGII	5.93	3.33	15.56	0.00	1.11	0.00	4.32	BETL
ARCH 777 BG II (ZC 1) (normal)	6.69	5.00	-	0.00	2.22	0.00	2.78	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	7.03	3.33	21.07	15.71	8.25	0.00	9.23	
RCH 1119BGII	7.84	2.67	17.34	14.29	1.97	0.00	7.35	
BIO 6910 BGII	9.16	3.33	19.52	14.57	3.93	0.00	8.42	
US 704 BG II (ZC 2)	3.73	4.00	15.37	15.67	6.00	0.00	7.46	
PCH 7533 Bt2	3.84	4.00	19.23	10.65	6.66	0.00	7.40	
US 751 BGII	7.33	4.00	16.85	18.18	3.29	0.00	8.28	
C 9407 BG-II	7.20	4.67	30.77	12.68	4.66	0.00	10.00	
ARCH 777 BG II (ZC 1)	9.02	5.33	21.97	15.38	5.32	0.00	9.50	
NCS 9954 Bt2	12.38	3.33	7.60	7.96	0.99	0.00	5.38	
KCH 9287 BGII	7.21	4.00	24.58	9.78	6.32	0.00	8.65	
ACH 31-2 BGII	6.41	3.33	16.55	14.29	1.81	0.00	7.07	
ARCH 777 BG II (ZC 1) (normal)	8.75	4.00	-	11.86	4.84	0.00	5.89	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	3.80	1.67	7.46	5.63	3.35	0.00	3.65	
RCH 1119BGII	4.02	1.50	6.51	4.87	0.75	0.00	2.94	
BIO 6910 BGII	4.50	1.67	8.22	4.55	1.48	0.00	3.40	
US 704 BG II (ZC 2)	1.54	1.67	5.20	6.34	2.41	0.00	2.86	
PCH 7533 Bt2	1.80	2.00	6.55	4.59	2.60	0.00	2.92	
US 751 BGII	3.55	1.83	6.19	6.33	1.26	0.00	3.19	
C 9407 BG-II	3.82	2.33	10.24	4.34	1.75	0.00	3.75	
ARCH 777 BG II (ZC 1)	4.14	2.83	7.59	4.64	2.00	0.00	3.53	
NCS 9954 Bt2	6.18	2.17	2.48	3.36	0.36	0.00	2.43	
KCH 9287 BGII	3.37	2.17	7.80	3.94	2.45	0.00	3.29	
ACH 31-2 BGII	3.00	1.83	5.23	5.08	0.69	0.00	2.64	
ARCH 777 BG II (ZC 1) (normal)	4.36	1.83	-	3.06	1.74	0.00	2.20	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Protected Conditions – No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
GBCH 5094 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
RCH 1119BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
BIO 6910 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
US 704 BG II (ZC 2)	5.00	3.00	5.00	-	3.00	4.00	4.00	
PCH 7533 Bt2	5.00	3.00	5.00	-	3.00	4.00	4.00	
US 751 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
C 9407 BG-II	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 777 BG II (ZC 1)	5.00	3.00	5.00	-	3.00	4.00	4.00	
NCS 9954 Bt2	5.00	3.00	5.00	-	3.00	4.00	4.00	
KCH 9287 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
ACH 31-2 BGII	5.00	3.00	5.00	-	3.00	4.00	4.00	
ARCH 777 BG II (ZC 1) (normal)	5.00	3.00	-	-	3.00	4.00	3.75	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 14 (a): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids–Rainfed(AET-I Compact RF)under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions															
			CICR, Nagpur										PDKV, Akola					
			FFS		TSV		BLB		Boll rot		GM		BLB		GM		MLS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
2	53081	GBCH 5094 BGII	19.9	R	2.8	R	5.0	R	5.8	R	6.8	R	6.3	R	30.0	MR	23.8	R
6	53082	RCH 1119BGII	25.8	MR	16.1	R	13.3	R	6.0	R	7.1	R	12.5	R	21.3	R	25.0	R
9	53083	BIO 6910 BGII	30.5	MR	8.3	R	10.8	R	27.8	MR	10.8	R	7.5	R	23.8	R	26.3	MR
1	53084	US 704 BG II (ZC 2)	17.5	R	0.0	DF	16.7	R	5.3	R	6.4	R	13.8	R	25.0	R	21.3	R
11	53085	PCH 7533 Bt2	25.8	MR	2.8	R	8.3	R	7.5	R	8.8	R	8.8	R	26.3	MR	22.5	R
3	53086	US 751 BGII	28.3	MR	0.0	DF	30.0	MR	6.8	R	8.3	R	3.8	R	20.0	R	25.0	R
7	53087	C 9407 BG-II	20.2	R	0.0	DF	5.0	R	8.7	R	10.0	R	5.0	R	17.5	R	23.8	R
4	53088	ARCH 777 BG II (ZC 1)	25.0	R	0.0	DF	10.8	R	8.4	R	10.0	R	11.3	R	16.3	R	18.8	R
8	53089	NCS 9954 Bt2	18.8	R	16.7	R	15.8	R	7.2	R	9.0	R	10.0	R	27.5	MR	28.8	MR
10	53090	KCH 9287 BGII	26.9	MR	22.2	R	29.2	MR	9.4	R	11.7	R	6.3	R	26.3	MR	20.0	R
5	53091	ACH 31-2 BGII	22.7	R	0.0	DF	10.0	R	13.8	R	17.9	R	3.8	R	23.8	R	15.0	R



Table 14 (b): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids – Rainfed (AET-I Compact RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions													
			Surat				Bharuch				Nanded					
			BLB		ALS		BLB		ALS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
2	53081	GBCH 5094 BGII	0.0	DF	0.0	DF	2.2	R	1.8	R	5.8	R	5.6	R	8.9	R
6	53082	RCH 1119BGII	0.0	DF	0.0	DF	0.0	DF	4.2	R	2.3	R	5.0	R	7.7	R
9	53083	BIO 6910 BGII	7.8	R	0.0	DF	1.8	R	4.8	R	5.6	R	5.7	R	5.6	R
1	53084	US 704 BG II (ZC 2)	0.0	DF	0.0	DF	0.0	DF	2.2	R	3.7	R	3.4	R	6.8	R
11	53085	PCH 7533 Bt2	22.5	R	0.0	DF	0.0	DF	3.2	R	3.1	R	5.8	R	9.1	R
3	53086	US 751 BGII	0.0	DF	0.0	DF	0.0	DF	3.8	R	0.0	DF	6.2	R	8.9	R
7	53087	C 9407 BG-II	13.8	R	2.8	R	1.5	R	13.8	R	0.0	DF	3.3	R	8.3	R
4	53088	ARCH 777 BG II (ZC 1)	4.8	R	0.0	DF	1.3	R	4.0	R	3.8	R	5.0	R	10.3	R
8	53089	NCS 9954 Bt2	5.8	R	0.0	DF	1.7	R	4.7	R	0.0	DF	3.3	R	8.8	R
10	53090	KCH 9287 BGII	5.0	R	0.0	DF	1.3	R	3.8	R	3.6	R	2.8	R	7.3	R
5	53091	ACH 31-2 BGII	5.3	R	0.0	DF	1.5	R	2.5	R	4.3	R	1.7	R	8.1	R

Table 14 (c): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids – Rainfed (AET-I Compact RF) under Protected and unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions								Average PDI & Disease Reaction (DR): unprotected conditions							
			Kaveri , Aurangabad								Kaveri , Aurangabad							
			ALS		GM		BLB		TSV		ALS		GM		BLB		TSV	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
2	53081	GBCH 5094 BGII	11.3	R	6.8	R	7.5	R	1.9	R	16.6	R	20.0	R	17.8	R	6.6	R
6	53082	RCH 1119BGII	9.2	R	9.5	R	6.8	R	2.3	R	12.7	R	31.7	MR	14.6	R	8.0	R
9	53083	BIO 6910 BGII	11.8	R	6.2	R	3.8	R	1.6	R	18.9	R	17.5	R	7.6	R	5.4	R
1	53084	US 704 BG II (ZC 2)	12.9	R	5.3	R	5.7	R	2.1	R	19.6	R	14.2	R	12.1	R	7.2	R
11	53085	PCH 7533 Bt2	9.2	R	8.6	R	9.7	R	1.1	R	11.9	R	21.0	R	26.0	MR	3.7	R
3	53086	US 751 BGII	17.3	R	8.8	R	3.7	R	2.3	R	26.6	MR	25.9	MR	7.6	R	7.7	R
7	53087	C 9407 BG-II	14.0	R	7.9	R	5.5	R	1.0	R	22.4	R	21.7	R	13.3	R	3.4	R
4	53088	ARCH 777 BG II (ZC 1)	10.1	R	5.2	R	3.6	R	0.9	R	14.6	R	17.5	R	10.8	R	3.2	R
8	53089	NCS 9954 Bt2	17.8	R	5.5	R	5.4	R	2.2	R	27.7	MR	15.9	R	12.1	R	7.6	R
10	53090	KCH 9287 BGII	6.7	R	4.1	R	3.1	R	0.7	R	9.2	R	12.5	R	7.0	R	2.3	R
5	53091	ACH 31-2 BGII	14.0	R	8.3	R	4.6	R	2.9	R	22.1	R	23.4	R	10.2	R	9.8	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

**Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions –
Aphid**

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	6.93	11.07	-	3.22	8.53	0.00	5.95	BETL
RCH 1119BGII	6.93	9.43	-	3.42	8.93	0.00	5.74	BETL
BIO 6910 BGII	9.53	8.13	-	4.84	9.27	0.00	6.36	BETL
US 704 BG II (ZC 2)	3.53	15.07	-	4.02	8.33	0.00	6.19	BETL
PCH 7533 Bt2	2.73	7.20	-	3.09	10.73	0.00	4.75	BETL
US 751 BGII	5.13	6.53	-	3.27	8.87	0.00	4.76	BETL
C 9407 BG-II	6.60	10.33	-	3.58	8.33	0.00	5.77	BETL
ARCH 777 BG II (ZC 1)	6.87	11.13	-	4.87	8.07	0.00	6.19	BETL
NCS 9954 Bt2	10.53	11.07	-	4.67	11.29	0.00	7.51	BETL
KCH 9287 BGII	3.73	7.47	-	5.02	9.60	0.00	5.16	BETL
ACH 31-2 BGII	4.80	7.93	-	3.87	8.47	0.00	5.01	BETL
ARCH 777 BG II (ZC 1) (normal)	6.53	9.47	-	-	7.80	0.00	5.95	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	2.27	5.93	-	1.33	1.53	5.55	3.32	BETL
RCH 1119BGII	2.33	4.67	-	0.67	2.13	7.44	3.45	BETL
BIO 6910 BGII	4.40	5.53	-	1.38	4.20	8.44	4.79	BETL
US 704 BG II (ZC 2)	1.47	4.47	-	1.53	1.87	10.44	3.96	BETL
PCH 7533 Bt2	1.00	3.53	-	1.22	3.33	6.89	3.20	BETL
US 751 BGII	2.00	4.67	-	1.16	3.40	5.89	3.42	BETL
C 9407 BG-II	2.47	8.00	-	1.16	3.80	9.22	4.93	BETL
ARCH 777 BG II (ZC 1)	2.33	4.60	-	0.96	2.80	6.67	3.47	BETL
NCS 9954 Bt2	4.60	10.27	-	1.69	4.53	8.67	5.95	BETL
KCH 9287 BGII	2.33	7.67	-	1.62	2.93	5.56	4.02	BETL
ACH 31-2 BGII	1.67	4.27	-	0.93	2.67	7.22	3.35	BETL
ARCH 777 BG II (ZC 1) (normal)	2.93	4.33	-	-	2.73	9.78	4.94	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	I	I	-	I	I	III	I	
RCH 1119BGII	I	I	-	I	I	III	I	
BIO 6910 BGII	I	I	-	I	II	III	II	
US 704 BG II (ZC 2)	I	I	-	I	I	IV	II	
PCH 7533 Bt2	I	I	-	I	II	III	II	
US 751 BGII	I	I	-	I	II	II	I	
C 9407 BG-II	I	II	-	I	II	III	II	
ARCH 777 BG II (ZC 1)	I	I	-	I	II	III	II	
NCS 9954 Bt2	I	III	-	I	II	III	II	
KCH 9287 BGII	I	II	-	I	II	II	II	
ACH 31-2 BGII	I	I	-	I	II	III	II	
ARCH 777 BG II (ZC 1) (normal)	I	I	-	-	II	III	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	9.73	15.13	-	0.80	10.93	0.00	7.32	BETL
RCH 1119BGII	11.60	20.93	-	0.51	8.33	0.00	8.28	BETL
BIO 6910 BGII	20.67	15.93	-	0.93	16.27	0.00	10.76	BETL
US 704 BG II (ZC 2)	9.33	14.87	-	0.93	9.60	0.00	6.95	BETL
PCH 7533 Bt2	9.80	12.00	-	0.87	13.40	0.00	7.21	BETL
US 751 BGII	13.33	15.07	-	0.38	14.87	0.00	8.73	BETL
C 9407 BG-II	13.80	17.60	-	0.16	13.73	0.00	9.06	BETL
ARCH 777 BG II (ZC 1)	12.80	14.53	-	0.42	13.33	0.00	8.22	BETL
NCS 9954 Bt2	16.67	16.13	-	0.40	16.07	0.00	9.85	BETL
KCH 9287 BGII	10.27	14.87	-	0.42	9.67	0.00	7.04	BETL
ACH 31-2 BGII	11.00	14.27	-	0.22	11.40	0.00	7.38	BETL
ARCH 777 BG II (ZC 1) (normal)	14.67	14.13	-	-	10.80	0.00	9.90	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	1.27	0.47	-	1.29	0.60	2.67	1.26	BETL
RCH 1119BGII	2.67	0.67	-	1.02	0.47	3.89	1.74	BETL
BIO 6910 BGII	2.20	0.60	-	0.80	0.47	4.55	1.72	BETL
US 704 BG II (ZC 2)	1.67	0.47	-	0.87	0.33	5.78	1.82	BETL
PCH 7533 Bt2	1.07	0.47	-	0.84	0.67	3.22	1.25	BETL
US 751 BGII	1.80	0.60	-	0.69	0.87	2.44	1.28	BETL
C 9407 BG-II	2.67	0.47	-	0.73	0.93	5.29	2.02	BETL
ARCH 777 BG II (ZC 1)	2.40	0.67	-	0.76	1.00	2.89	1.54	BETL
NCS 9954 Bt2	3.13	0.60	-	1.13	0.60	5.00	2.09	BETL
KCH 9287 BGII	1.67	0.67	-	0.98	0.53	2.22	1.21	BETL
ACH 31-2 BGII	1.87	0.60	-	0.84	0.33	3.89	1.51	BETL
ARCH 777 BG II (ZC 1) (normal)	2.40	0.60	-	-	0.27	5.44	2.18	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.60	1.60	-	0.00	3.78	0.21	1.24	
RCH 1119BGII	0.60	1.20	-	0.02	3.69	0.21	1.14	
BIO 6910 BGII	0.73	1.73	-	0.02	3.69	0.20	1.28	
US 704 BG II (ZC 2)	0.80	2.00	-	0.07	3.42	0.19	1.30	
PCH 7533 Bt2	0.60	1.47	-	0.04	4.16	0.21	1.30	
US 751 BGII	0.80	1.27	-	0.02	3.76	0.22	1.21	
C 9407 BG-II	0.60	1.20	-	0.00	3.56	0.20	1.11	
ARCH 777 BG II (ZC 1)	0.73	1.40	-	0.02	3.27	0.19	1.12	
NCS 9954 Bt2	0.87	1.47	-	0.07	4.16	0.21	1.35	
KCH 9287 BGII	0.67	1.73	-	0.00	3.49	0.20	1.22	
ACH 31-2 BGII	0.80	1.73	-	0.02	3.33	0.21	1.22	
ARCH 777 BG II (ZC 1) (normal)	0.67	1.33	-	-	3.02	0.24	1.32	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	0.07	0.00	0.02	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./ 5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions –*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./ 5 plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.67	0.67	-	0.00	3.33	0.00	0.93	BETL
RCH 1119BGII	0.33	1.00	-	0.00	0.33	0.00	0.33	BETL
BIO 6910 BGII	1.00	1.00	-	0.00	1.00	0.00	0.60	BETL
US 704 BG II (ZC 2)	0.33	1.00	-	0.00	1.67	0.00	0.60	BETL
PCH 7533 Bt2	0.67	0.67	-	0.00	3.33	0.00	0.93	BETL
US 751 BGII	0.67	1.00	-	0.00	1.00	0.00	0.53	BETL
C 9407 BG-II	0.67	1.33	-	0.00	1.33	0.00	0.67	BETL
ARCH 777 BG II (ZC 1)	0.67	0.67	-	0.00	2.00	0.00	0.67	BETL
NCS 9954 Bt2	1.00	1.00	-	0.00	0.00	0.00	0.40	BETL
KCH 9287 BGII	0.67	0.67	-	0.00	2.33	0.00	0.73	BETL
ACH 31-2 BGII	0.67	0.67	-	0.00	0.33	0.00	0.33	BETL
ARCH 777 BG II (ZC 1) (normal)	1.00	0.67	-	-	1.33	0.00	0.75	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	0.00	0.00	-	0.00	1.57	0.00	0.31	BETL
RCH 1119BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
BIO 6910 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
US 704 BG II (ZC 2)	0.00	0.00	-	0.00	1.06	0.00	0.21	BETL
PCH 7533 Bt2	0.00	0.00	-	0.00	1.60	0.00	0.32	BETL
US 751 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
C 9407 BG-II	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
ARCH 777 BG II (ZC 1)	0.00	0.00	-	0.00	0.90	0.00	0.18	BETL
NCS 9954 Bt2	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
KCH 9287 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ACH 31-2 BGII	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
ARCH 777 BG II (ZC 1) (normal)	0.00	0.00	-	-	1.13	0.00	0.28	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	6.67	6.67	-	0.00	30.00	0.00	8.67	BETL
RCH 1119BGII	6.67	5.00	-	0.00	6.67	0.00	3.67	BETL
BIO 6910 BGII	13.33	8.33	-	0.00	13.33	0.00	7.00	BETL
US 704 BG II (ZC 2)	6.67	11.67	-	0.00	20.00	0.00	7.67	BETL
PCH 7533 Bt2	6.67	10.00	-	0.00	26.67	0.00	8.67	BETL
US 751 BGII	6.67	5.00	-	0.00	13.33	0.00	5.00	BETL
C 9407 BG-II	6.67	10.00	-	0.00	16.67	0.00	6.67	BETL
ARCH 777 BG II (ZC 1)	6.67	8.33	-	0.00	20.00	0.00	7.00	BETL
NCS 9954 Bt2	13.33	5.00	-	0.00	3.33	0.00	4.33	BETL
KCH 9287 BGII	6.67	10.00	-	0.00	20.00	0.00	7.33	BETL
ACH 31-2 BGII	6.67	11.67	-	0.00	6.67	0.00	5.00	BETL
ARCH 777 BG II (ZC 1) (normal)	13.33	10.00	-	-	20.00	0.00	10.83	AETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	7.20	4.00	-	17.39	28.47	0.00	11.41	
RCH 1119BGII	8.60	2.00	-	0.00	6.53	0.00	3.43	
BIO 6910 BGII	11.60	4.00	-	0.00	12.98	0.00	5.72	
US 704 BG II (ZC 2)	4.52	4.00	-	13.64	19.36	0.00	8.30	
PCH 7533 Bt2	5.25	4.00	-	2.56	25.36	0.00	7.43	
US 751 BGII	8.30	6.00	-	14.81	12.91	0.00	8.41	
C 9407 BG-II	7.30	6.00	-	0.00	16.14	0.00	5.89	
ARCH 777 BG II (ZC 1)	9.05	6.00	-	5.26	19.63	0.00	7.99	
NCS 9954 Bt2	14.30	4.00	-	0.00	3.41	0.00	4.34	
KCH 9287 BGII	7.05	4.00	-	0.00	19.47	0.00	6.10	
ACH 31-2 BGII	7.00	4.00	-	0.00	6.38	0.00	3.48	
ARCH 777 BG II (ZC 1) (normal)	9.33	4.00	-	-	19.38	0.00	8.18	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced H X H (Compact) trial in Central Zone under Unprotected Conditions – Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
GBCH 5094 BGII	3.55	2.00	-	8.70	11.55	0.00	5.16	
RCH 1119BGII	4.30	1.00	-	0.00	2.49	0.00	1.56	
BIO 6910 BGII	6.21	1.50	-	0.00	4.89	0.00	2.52	
US 704 BG II (ZC 2)	2.35	2.00	-	6.82	7.77	0.00	3.79	
PCH 7533 Bt2	2.61	2.00	-	1.28	9.88	0.00	3.16	
US 751 BGII	4.02	2.50	-	6.48	4.96	0.00	3.59	
C 9407 BG-II	3.56	1.50	-	0.00	6.02	0.00	2.22	
ARCH 777 BG II (ZC 1)	4.55	1.50	-	1.97	7.37	0.00	3.08	
NCS 9954 Bt2	7.51	1.00	-	0.00	1.27	0.00	1.96	
KCH 9287 BGII	3.51	1.00	-	0.00	7.59	0.00	2.42	
ACH 31-2 BGII	3.42	1.50	-	0.00	2.45	0.00	1.47	
ARCH 777 BG II (ZC 1) (normal)	5.01	1.50	-	-	6.97	0.00	3.37	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 14 (d): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids – Rainfed (AET-I Compact RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions													
			Surat				CICR, Nagpur									
			BLB		ALS		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
2	53081	GBCH 5094 BGII	15.5	R	0.0	DF	21.6	R	8.3	R	10.5	R	11.0	R	11.0	R
6	53082	RCH 1119BGII	0.0	DF	0.0	DF	27.5	MR	24.1	R	20.8	R	13.0	R	11.0	R
9	53083	BIO 6910 BGII	0.0	DF	8.0	R	33.3	MR	13.8	R	13.6	R	30.4	MR	15.2	R
1	53084	US 704 BG II (ZC 2)	0.0	DF	0.0	DF	21.3	R	8.3	R	19.4	R	9.7	R	11.0	R
11	53085	PCH 7533 Bt2	0.0	DF	0.0	DF	29.4	MR	11.0	R	11.1	R	11.0	R	12.4	R
3	53086	US 751 BGII	0.0	DF	2.5	R	31.3	MR	8.3	R	31.9	MR	13.0	R	12.4	R
7	53087	C 9407 BG-II	0.0	DF	0.0	DF	22.2	R	2.8	R	10.8	R	12.4	R	16.5	R
4	53088	ARCH 777 BG II (ZC 1)	0.0	DF	0.0	DF	27.8	MR	2.8	R	21.1	R	11.1	R	13.8	R
8	53089	NCS 9954 Bt2	0.0	DF	0.0	DF	21.3	R	19.3	R	24.1	R	11.1	R	16.5	R
10	53090	KCH 9287 BGII	0.0	DF	0.0	DF	28.6	MR	40.8	MR	46.3	MR	15.2	R	20.5	R
5	53091	ACH 31-2 BGII	0.0	DF	4.0	R	26.8	MR	2.8	R	15.8	R	18.5	R	21.3	R



Table 14 (e): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids – Rainfed (AET-I Compact RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions									
			Bharuch				Nanded					
			BLB		ALS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
2	53081	GBCH 5094 BGII	2.0	R	1.5	R	9.2	R	9.2	R	15.4	R
6	53082	RCH 1119BGII	0.0	DF	4.0	R	5.1	R	8.4	R	13.2	R
9	53083	BIO 6910 BGII	1.5	R	4.5	R	9.2	R	8.6	R	10.5	R
1	53084	US 704 BG II (ZC 2)	0.0	DF	1.5	R	6.9	R	6.8	R	11.7	R
11	53085	PCH 7533 Bt2	0.0	DF	3.5	R	6.3	R	9.5	R	15.3	R
3	53086	US 751 BGII	0.0	DF	2.5	R	0.0	DF	8.3	R	13.4	R
7	53087	C 9407 BG-II	1.0	R	10.5	R	0.0	DF	7.1	R	12.4	R
4	53088	ARCH 777 BG II (ZC 1)	1.5	R	3.5	R	7.6	R	8.0	R	15.7	R
8	53089	NCS 9954 Bt2	1.5	R	3.0	R	0.0	DF	7.6	R	12.2	R
10	53090	KCH 9287 BGII	1.0	R	2.0	R	6.6	R	5.1	R	12.6	R
5	53091	ACH 31-2 BGII	1.0	R	2.0	R	7.3	R	7.3	R	13.6	R



Agronomic Evaluation

NANDED (ACH 31-2 BG II)

The results of agronomic requirement studies conducted at Nanded (Table 24) under rainfed conditions revealed that the plant height and number of sympodia of genotype ACH 31-2 BG II were not affected due to spacing. Increase in plant population in closer spacing of 90 x 15 cm as resulted in significant increase in number of bolls per square meter (66.50/SQM) and seed cotton yield (1983 kg/ha). Other spacing were significantly lower than 90 x 15 cm. Increase in fertilizer dose has resulted to increased number of sympodia per plant and length of sympodia. Similarly, it has increased number of bolls per square meter. However, 75% RDF + CICR consortia has increased the boll weight over 100% RDF. The seed cotton yield was found highest in 125% RDF. It was at par with 75% RDF + CICR consortia (1695 kg/a) and 100% RDF (1723 k/ha).

Table 24. Seed cotton yield (kg/ha) of ACH 31-2 BG II as influenced by spacing levels and nutrient levels at Nanded

Treatments	S ₁ - 90 x 15 cm	S ₂ - 90 x 22.5 cm	S ₃ : 90 x 30 cm	Mean (Fertilizer)	ANO VA	SE d	CD (5%)	CV
F ₁ - 75% RDF	1828	1595	1269	1564	Spacing	51.34	107.16	7.41
F ₂ - 100% RDN	2027	1687	1455	1723	Fertilizer	59.28	123.74	
F ₃ - 125% RDN	2082	1782	1548	1804	S X N	102.68	N.S	
F ₄ – CICR Consortia + 75% RDF	1995	1646	1444	1695				
Mean (spacing)	1983	1677	1429					
Control (RCH 959 BG II with Rd spacing and RDN)		1341						

MC- Microbial consortia as seed treatment and 25 days after sowing as soil application

Basic parameters: pH: 8.08, EC: 1.82 dSm⁻¹, OC (%): 0.42, Available N: 141.40 kg/ha, Available P₂O₅: 11.76 kg/ha, Available K₂O: 434.80 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: ACH 31-2 BG II, Environment: Rainfed, Total rainfall during cropping period: 1486.8 mm

NANDED (BIO 6910 BG II)

The results of agronomic requirement studies conducted at Nanded (Table 25) under rainfed conditions revealed that number of monopodia and sympodia per plant of genotype BIO 6910 BG II were increased due to wider spacing (90 x 30 cm). However, seed cotton yield and number of bolls per square meter were not affected due to spacing. Increase in nitrogen dose has resulted to increased number of monopodia per plant. However, plant height, number of bolls per square meter and seed cotton yield per ha remained statistically unaffected due to increased nitrogen levels.



Table 25. Seed cotton yield (kg/ha) of as influenced by spacing levels and nutrient levels (BIO 6910 BG II) at Nanded

Treatments	S ₁ - 90 x 15 cm	S ₁ - 90 x 22.5 cm	S ₁ - 90 x 30 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)	CV
N ₁ - 75% RDN	1978	1976	1788	1914	Spacing	103.36	N.S.	11.45
N ₂ - 100%RDN	1989	1978	1814	1927	Nitrogen	103.36	N.S.	
N ₃ - 125% RDN	1927	1897	1883	1902	S X N	179.02	N.S.	
Mean (spacing)	1965	1950	1828					
Control RCH 959 BG II		1817						

Basic parameters: pH: 8.12, EC: 1.79 dSm⁻¹, OC (%): 0.41, Available N: 138.70 kg/ha, Available P₂O₅: 11.67 kg/ha, Available K₂O: 392.1 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: BIO 6910 BG II, Environment: Rainfed, Total rainfall during cropping period: 1486.8 mm



NANDED (GBCH 5094 BG II)

The results of agronomic requirement studies conducted at Nanded (Table 26) under rainfed conditions revealed that the number of branches and length of sympodia of compact genotype GBCH 5094 BG II were increased in wider spacing of 90 x 30 cm over 90 x 15 cm. The boll weight (3.89 g) and yield per plant (53.6 g) were significantly increased in spacing 90 x 30 cm. However, significant increase in plant population in spacing 90 x 15 cm resulted in highest seed cotton yield (2001 kg/ha); which was significantly higher than other two spacings. However the compact hirsutum hybrid GBCH 5094 BG II didn't responded to increased nitrogen levels. The plant growth characters, number of bolls per square meter and seed cotton yield remained non-significant due to application of different nitrogen levels.

Table 26. Seed cotton yield (kg/ha) of GBCH 5094 BG II as influenced by spacing levels and nutrient levels at Nanded

Treatments	S ₁ - 90 x 15 cm	S ₁ - 90 x 22.5 cm	S ₁ - 90 x 30 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)	CV
N ₁ - 75% RDN	2036	1818	1775	1877	Spacing	70.79	150.07	7.9 4
N ₂ - 100%RDN	2004	1847	1930	1927	Nitroge n	70.79	N.S.	
N ₃ - 125% RDN	1962	1797	1850	1870	S X N	122.6 1	N.S.	
Mean (spacing)	2001	1821	1852					
Control (RCH 959 BG II)		2002						

Basic parameters: pH: 8.12, EC: 1.79 dSm⁻¹, OC (%): 0.41, Available N: 138.70 kg/ha, Available P₂O₅: 11.67 kg/ha, Available K₂O: 392.1 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: GBCH 5094 BG II, Cotton species: Hirsutum Bt compact hybrid, Environment: Rainfed, Total rainfall during cropping period: 1486.8 mm

NANDED (KCH 9287 BG II)

The results of agronomic requirement studies conducted at Nanded under rainfed conditions revealed that the number of monopodial branches and length of sympodia of compact genotype KCH 9287 BG II were increased in wider spacing of 90 x 30 cm over other spacings. The yield per plant (77.33 g) was significantly increased in spacing 90 x 30 cm. However, significant increase in plant population in spacing 90 x 15 cm resulted in highest seed cotton yield (2139 kg/ha). It was significantly higher than spacings 90 x 22.5 cm (1708 kg/ha) and 90 x 30 cm (1622 kg/ha). The compact hirsutum hybrid KCH 9287 BG II didn't responded to increased nitrogen levels under rainfed condition. The plant growth characters, yield attributes and seed cotton yield remained statistically similar due to different nitrogen levels (Table 27).



Table 27. Seed cotton yield (kg/ha) of genotype KCH 9287 BG II as influenced by spacing levels and nutrient levels at Nanded

Treatments	S ₁ - 90 x 15 cm	S ₁ - 90 x 22.5 cm	S ₁ - 90 x 30 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)	CV
N ₁ - 75% RDN	2046	1763	1636	1815	Spacing	72.94	154.64	8.49
N ₂ - 100%RDN	2385	1746	1575	1902	Nitrogen	72.94	N.S.	
N ₃ - 125% RDN	1986	1614	1655	1752	S X N	126.34	N.S.	
Mean (spacing)	2139	1708	1622					
Control (RCH 959 BG II)		1604						

Basic parameters: pH: 8.12, EC: 1.79 dSm⁻¹, OC (%): 0.41, Available N: 138.70 kg/ha, Available P₂O₅: 11.67 kg/ha, Available K₂O: 392.1 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: KCH 9287 BG II, Cotton species: Hirsutum Bt compact hybrid, Environment: Rainfed, Total rainfall during cropping period: 1486.8 mm

NANDED (MRC 9407 BG II)

The results of agronomic requirement studies conducted at Nanded under rainfed conditions revealed (Table 28) that the number of sympodia of compact genotype KCH 9287 BG II was increased in spacing 90 x 30 cm. However, plant height, number of bolls per square meter and seed cotton yield were not influenced due to different spacing. Increase in fertilizer dose upto 100% RDN has resulted to increased number bolls per square meter (47.44) and decreased thereafter. The highest seed cotton yield was recorded in 75% RDN (1516 kg/ha) and was on par with 100% RDN (1415 kg/ha). It was significantly superior over 125%RDN (1291 kg/ha).

Table 28. Seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels in MRC 9407 BG II at Nanded

Treatments	S ₁ - 90 x 15 cm	S ₁ - 90 x 22.5 cm	S ₁ - 90 x 30 cm	Mean (Nitrogen)	ANOVA	SE d	CD (5%)	CV
N ₁ - 75% RDN	1641	1560	1346	1516	Spacing	70.56	N.S.	10.64
N ₂ - 100%RDN	1314	1517	1414	1415	Nitrogen	70.56	149.59	
N ₃ - 125% RDN	1160	1259	1452	1291	S X N	122.22	259.10	
Mean (spacing)	1372	1445	1404					
Control (RCH 959 BG II)		1121						

Basic parameters: pH: 8.12, EC: 1.79 dSm⁻¹, OC (%): 0.41, Available N: 138.70 kg/ha, Available P₂O₅: 11.67 kg/ha, Available K₂O: 392.1 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: MRC 9407 BG II, Cotton species: Hirsutum Bt compact hybrid, Environment: Rainfed, Total rainfall during cropping period: 1486.8 mm



Initial Evaluation Trial of Hirsutum Varieties - Rainfed

Constitution of Trial

The trial was constituted with 11 Bt cotton varieties containing deregulated event along with two different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	4	53101	CPDBt-2553	UAS Dharwad
2	8	53102	PKV 081 Bt (ZC Bt-1)	
3	12	53103	LRA 5166 Bt	CICR, Coimbatore
4	1	53104	NH 22028 Bt	CRS, Nanded
5	13	53105	NH 1901 Bt (ZC Bt-2)	
6	3	53106	CICR 25-22 Bt II	ICAR-CICR, Nagpur
7	6	53107	CICR 25-21 Bt II	ICAR-CICR, Nagpur
8	10	53108	CICR Bt 142	ICAR-CICR, Nagpur
9	2	53109	Anjali Bt	CICR, Coimbatore
10	9	53110	Sumangala Bt	CICR, Coimbatore
11	5	53111	NH 22074 Bt	CRS, Nanded
12	7	53112	CCH 2623 Bt	CICR, Coimbatore
13	11	53113	NH 22034 Bt	CRS, Nanded

The trial was conducted in six locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; VNMKV, Nanded; MPUAT, Banswara and ICAR-CICR, Nagpur.

The zonal check variety **PKV 081 Bt (ZC Bt-1)** was not released for the central zone under rainfed conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

Spacing: Recommended spacing for the variety has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	143.3	146.4	93.7	138.5	111.9	124.3	126.4
2	LRA 5166 Bt	153.3	137.5	102.3	131.3	116.9	138.7	130.0
3	NH 22028 Bt	163.3	152.9	105.0	138.0	142.9	145.7	141.3
4	NH 1901 Bt (ZC Bt)	148.3	144.6	104.5	150.0	149.5	133.0	138.3
5	CICR 25-22 Bt II	136.7	126.4	99.0	118.0	122.8	123.3	121.0
6	CICR 25-21 Bt II	141.7	131.6	101.7	125.4	127.8	123.3	125.3
7	CICR Bt 142	118.3	132.1	91.4	136.0	126.1	119.7	120.6
8	Anjali Bt	126.7	118.9	93.0	119.3	128.9	120.3	117.9
9	Sumangala Bt	146.7	139.9	97.7	141.3	142.7	131.7	133.3
10	NH 22074 Bt	117.3	120.3	99.7	121.9	139.3	124.0	120.4
11	CCH 2623 Bt	165.0	142.3	110.7	132.0	143.7	136.7	138.4
12	NH 22034 Bt	161.7	154.3	120.3	135.7	151.1	164.0	147.9
	CD @ 5%	23.0	14.6	11.6	14.8	21.2	15.3	
	CV%	9.6	6.4	6.8	6.5	9.3	6.9	

Number of monopodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	1.0	0.5	0.6	0.3	0.4	1.3	0.7
2	LRA 5166 Bt	2.0	1.2	1.1	0.3	0.5	2.0	1.2
3	NH 22028 Bt	2.0	1.1	1.1	0.4	0.8	1.3	1.1
4	NH 1901 Bt (ZC Bt)	1.3	0.7	0.9	0.3	1.1	1.3	0.9
5	CICR 25-22 Bt II	2.0	1.4	0.8	0.4	1.2	2.0	1.3
6	CICR 25-21 Bt II	1.0	0.8	0.5	0.4	0.6	2.3	0.9
7	CICR Bt 142	1.0	1.0	0.7	0.5	0.7	2.0	1.0
8	Anjali Bt	1.3	1.1	2.0	0.5	1.1	2.0	1.3
9	Sumangala Bt	2.0	1.1	2.0	0.7	0.9	2.3	1.5
10	NH 22074 Bt	1.0	0.6	0.8	0.0	0.6	0.7	0.6
11	CCH 2623 Bt	2.0	1.3	1.4	0.3	0.7	3.0	1.5
12	NH 22034 Bt	2.0	0.4	1.0	0.2	1.2	0.7	0.9
	CD @ 5%	0.4	0.3	0.3	0.3	NS	1.1	
	CV%	13.6	22.7	14.9	19.2	46.5	35.7	



Number of sympodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	25.0	24.4	14.0	21.6	25.1	37.7	24.6
2	LRA 5166 Bt	26.0	21.9	15.1	20.6	24.5	42.7	25.1
3	NH 22028 Bt	27.3	22.5	14.2	20.6	27.4	34.3	24.4
4	NH 1901 Bt (ZC Bt)	24.0	21.5	15.0	23.3	28.5	30.7	23.8
5	CICR 25-22 Bt II	25.3	20.3	13.7	19.1	26.6	39.0	24.0
6	CICR 25-21 Bt II	25.0	20.4	15.1	19.5	26.1	37.7	24.0
7	CICR Bt 142	20.3	17.0	13.3	21.1	26.3	32.7	21.8
8	Anjali Bt	27.0	19.7	14.7	19.1	26.5	40.3	24.6
9	Sumangala Bt	25.7	20.1	14.8	21.5	29.0	36.0	24.5
10	NH 22074 Bt	19.7	18.9	14.2	18.5	27.4	31.7	21.7
11	CCH 2623 Bt	26.3	20.7	15.1	18.0	29.0	37.7	24.5
12	NH 22034 Bt	24.0	27.2	17.3	19.1	27.3	34.7	24.9
	CD @ 5%	NS	4.3	1.9	3.7	NS	6.1	
	CV%	12.7	12.3	7.9	10.9	8.4	10.1	

Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	3.9	3.9	3.8	3.5	3.4	3.2	3.6
2	LRA 5166 Bt	4.1	4.4	4.4	4.2	3.9	3.8	4.1
3	NH 22028 Bt	5.0	4.9	3.4	4.2	4.9	3.9	4.4
4	NH 1901 Bt (ZC Bt)	4.0	3.4	3.4	3.3	3.7	3.1	3.5
5	CICR 25-22 Bt II	4.9	5.0	3.6	3.8	4.4	4.4	4.4
6	CICR 25-21 Bt II	4.5	5.1	4.2	4.0	4.3	4.4	4.4
7	CICR Bt 142	4.9	5.0	4.0	4.0	4.1	4.4	4.4
8	Anjali Bt	4.4	4.1	3.9	4.3	3.6	3.3	3.9
9	Sumangala Bt	4.6	4.9	4.0	4.0	3.9	4.1	4.3
10	NH 22074 Bt	4.0	4.1	3.8	3.2	3.4	3.3	3.6
11	CCH 2623 Bt	4.1	4.5	3.6	3.1	4.1	3.8	3.9
12	NH 22034 Bt	4.3	4.2	3.8	3.7	4.5	3.9	4.1
	CD @ 5%	0.3	0.5	0.3	0.3	0.4	0.2	
	CV%	4.3	7.2	5.0	5.5	6.2	2.8	



Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	28.3	38.1	12.3	32.5	15.6	28.3	25.9
2	LRA 5166 Bt	22.0	29.7	12.7	29.9	12.7	33.7	23.5
3	NH 22028 Bt	22.2	28.6	11.8	31.7	15.8	37.7	24.6
4	NH 1901 Bt (ZC Bt)	27.4	38.7	16.4	29.9	20.5	42.7	29.3
5	CICR 25-22 Bt II	18.8	22.5	10.4	28.6	13.1	33.3	21.1
6	CICR 25-21 Bt II	21.4	31.2	13.0	26.4	16.7	35.0	24.0
7	CICR Bt 142	17.8	25.1	11.1	27.8	13.5	33.3	21.4
8	Anjali Bt	25.8	27.8	13.8	26.9	18.3	33.3	24.3
9	Sumangala Bt	20.3	29.9	13.8	28.5	15.1	29.7	22.9
10	NH 22074 Bt	29.4	30.9	14.9	30.2	17.0	37.0	26.6
11	CCH 2623 Bt	22.5	30.1	11.7	32.5	18.2	37.3	25.4
12	NH 22034 Bt	17.9	24.6	13.1	31.1	12.5	30.0	21.5
	CD @ 5%	3.2	5.2	2.9	5.0	4.1	6.6	
	CV%	8.3	10.7	13.4	10.0	15.6	11.5	

Number of bolls / sq. m. in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	52.5	70.5	86.6	57.7	189.0	91.3
2	LRA 5166 Bt	40.7	54.9	76.8	46.9	202.3	84.3
3	NH 22028 Bt	41.2	52.9	86.2	58.5	225.0	92.8
4	NH 1901 Bt (ZC Bt)	50.8	71.6	80.2	76.0	268.7	109.5
5	CICR 25-22 Bt II	34.7	41.6	81.9	48.6	197.0	80.8
6	CICR 25-21 Bt II	39.7	57.8	74.7	61.7	210.0	88.8
7	CICR Bt 142	33.0	46.4	68.8	49.8	190.7	77.7
8	Anjali Bt	47.9	51.5	72.8	67.8	206.7	89.3
9	Sumangala Bt	37.6	55.4	74.0	55.7	176.0	79.7
10	NH 22074 Bt	54.4	57.2	72.7	62.9	213.0	92.0
11	CCH 2623 Bt	41.7	55.7	87.9	67.3	232.0	96.9
12	NH 22034 Bt	33.2	45.6	83.0	46.4	190.3	79.7
	CD @ 5%	6.0	9.6	13.0	15.1	21.5	
	CV%	8.3	10.7	9.8	15.6	6.2	



Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	5.4	5.7	5.0	4.2	4.7	4.1	4.9
2	LRA 5166 Bt	4.6	5.4	4.4	3.9	4.3	4.6	4.5
3	NH 22028 Bt	5.6	6.7	5.6	5.0	5.5	5.8	5.7
4	NH 1901 Bt (ZC Bt)	5.6	5.4	4.1	4.3	4.6	4.8	4.8
5	CICR 25-22 Bt II	4.3	5.8	4.2	3.9	4.9	6.2	4.9
6	CICR 25-21 Bt II	3.8	5.2	4.5	3.9	4.3	3.6	4.2
7	CICR Bt 142	4.7	5.8	4.0	4.1	4.4	5.4	4.7
8	Anjali Bt	5.3	5.7	4.2	4.1	4.7	4.4	4.7
9	Sumangala Bt	4.8	5.8	4.9	4.0	5.4	4.2	4.9
10	NH 22074 Bt	5.6	5.4	3.9	4.8	4.5	4.7	4.8
11	CCH 2623 Bt	4.8	5.8	4.5	4.3	5.0	5.2	4.9
12	NH 22034 Bt	5.2	6.2	4.7	4.1	5.2	5.6	5.2
	CD @ 5%	0.6	0.7	0.2	0.4		0.4	
	CV%	7.8	7.6	2.1	5.8		5.0	

Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	9.8	9.7	9.0	9.3	7.8	7.2	8.8
2	LRA 5166 Bt	11.2	11.3	9.8	9.8	10.2	9.1	10.2
3	NH 22028 Bt	10.7	12.3	11.3	9.6	10.9	9.2	10.7
4	NH 1901 Bt (ZC Bt)	10.8	9.3	7.4	9.3	8.8	8.2	9.0
5	CICR 25-22 Bt II	10.0	12.3	8.6	9.5	11.0	10.2	10.3
6	CICR 25-21 Bt II	9.5	11.5	9.6	9.9	10.6	9.9	10.2
7	CICR Bt 142	11.0	11.8	9.2	9.0	10.6	10.3	10.3
8	Anjali Bt	11.5	10.8	8.2	10.0	10.0	9.2	10.0
9	Sumangala Bt	10.2	11.3	9.8	9.9	10.6	8.2	10.0
10	NH 22074 Bt	11.2	10.0	7.4	7.5	8.2	8.2	8.8
11	CCH 2623 Bt	10.3	10.8	8.8	9.2	9.8	9.4	9.7
12	NH 22034 Bt	11.3	12.0	10.0	9.7	10.6	10.1	10.6
	CD @ 5%	NS	0.9	0.3	0.5		0.4	
	CV%	7.5	4.9	1.8	3.0		2.7	



Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	35.5	36.8	35.8	34.6	37.3	36.3	36.1
2	LRA 5166 Bt	29.3	32.4	30.8	32.2	29.7	33.3	31.3
3	NH 22028 Bt	34.4	35.2	33.1	34.6	33.7	38.7	35.0
4	NH 1901 Bt (ZC Bt)	34.1	36.7	35.6	36.6	34.3	37.0	35.7
5	CICR 25-22 Bt II	29.9	31.8	32.8	34.6	30.7	38.0	33.0
6	CICR 25-21 Bt II	28.4	31.3	31.8	30.0	29.0	26.7	29.5
7	CICR Bt 142	30.1	33.0	30.5	35.6	29.3	34.3	32.1
8	Anjali Bt	31.4	34.3	33.8	33.4	32.0	32.3	32.9
9	Sumangala Bt	32.0	33.7	33.5	33.6	33.7	34.0	33.4
10	NH 22074 Bt	33.5	34.9	34.5	36.4	35.3	36.3	35.2
11	CCH 2623 Bt	31.9	35.0	34.0	35.7	34.0	35.7	34.4
12	NH 22034 Bt	31.5	34.2	32.2	36.1	33.0	35.7	33.8
	CD @ 5%	1.3	2.0	0.3	2.6		1.1	
	CV%	2.4	3.6	0.6	4.4		2.0	

Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	28.4	27.7	27.6	26.4	27.6	25.2	27.2
2	LRA 5166 Bt	31.5	31.2	29.7	30.6	30.6	28.6	30.4
3	NH 22028 Bt	28.5	28.6	28.0	26.8	30.1	25.1	27.9
4	NH 1901 Bt (ZC Bt)	25.7	25.8	24.0	26.4	25.6	23.6	25.2
5	CICR 25-22 Bt II	27.0	26.8	26.7	25.5	27.9	24.0	26.3
6	CICR 25-21 Bt II	30.8	30.2	27.8	28.1	31.0	27.9	29.3
7	CICR Bt 142	28.3	27.8	28.1	26.0	29.4	26.4	27.7
8	Anjali Bt	29.4	29.2	26.9	27.6	29.8	27.0	28.3
9	Sumangala Bt	29.8	28.7	29.6	27.5	28.2	28.0	28.6
10	NH 22074 Bt	29.1	28.4	26.8	27.0	27.4	27.3	27.7
11	CCH 2623 Bt	29.2	28.8	28.8	27.8	27.8	26.4	28.1
12	NH 22034 Bt	31.0	30.1	30.1	27.4	29.9	28.2	29.5



Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	83.0	82.4	82.0	84.0	81.0	80.0	82.1
2	LRA 5166 Bt	85.0	83.8	83.0	85.0	86.0	84.0	84.5
3	NH 22028 Bt	83.0	84.8	84.0	83.0	85.0	80.0	83.3
4	NH 1901 Bt (ZC Bt)	82.0	82.0	81.0	83.0	83.0	79.0	81.7
5	CICR 25-22 Bt II	84.0	83.5	82.0	85.0	86.0	81.0	83.6
6	CICR 25-21 Bt II	83.0	83.3	83.0	83.0	85.0	80.0	82.9
7	CICR Bt 142	83.0	82.6	82.0	82.0	85.0	79.0	82.3
8	Anjali Bt	83.0	83.8	85.0	84.0	85.0	81.0	83.6
9	Sumangala Bt	85.0	82.7	83.0	83.0	82.0	81.0	82.8
10	NH 22074 Bt	84.0	83.7	83.0	83.0	82.0	80.0	82.6
11	CCH 2623 Bt	83.0	83.8	82.0	80.0	82.0	82.0	82.1
12	NH 22034 Bt	84.0	82.5	81.0	84.0	82.0	80.0	82.3

Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	5.1	5.1	4.6	4.2	4.9	5.1	4.8
2	LRA 5166 Bt	4.7	4.4	3.7	4.4	4.3	4.6	4.4
3	NH 22028 Bt	4.9	4.4	4.6	3.9	4.5	4.7	4.5
4	NH 1901 Bt (ZC Bt)	4.5	4.4	4.2	4.7	4.4	4.6	4.5
5	CICR 25-22 Bt II	5.1	5.2	4.2	4.9	4.6	5.0	4.8
6	CICR 25-21 Bt II	3.6	3.9	4.5	3.2	3.5	4.0	3.8
7	CICR Bt 142	4.1	4.4	3.7	3.3	4.0	3.9	3.9
8	Anjali Bt	4.5	4.3	4.1	4.5	4.5	4.7	4.4
9	Sumangala Bt	5.0	5.2	4.4	4.9	5.7	4.7	5.0
10	NH 22074 Bt	5.1	5.1	4.6	4.6	5.4	4.9	5.0
11	CCH 2623 Bt	4.7	4.7	4.4	4.7	4.7	4.8	4.7
12	NH 22034 Bt	4.2	4.8	3.8	4.0	4.3	4.5	4.3



Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	28.4	29.3	28.4	25.9	24.9	27.0	27.3
2	LRA 5166 Bt	30.7	32.9	29.7	28.1	30.1	30.7	30.4
3	NH 22028 Bt	26.0	29.2	27.9	25.2	25.2	25.2	26.5
4	NH 1901 Bt (ZC Bt)	27.6	27.7	24.3	25.5	24.3	25.0	25.7
5	CICR 25-22 Bt II	28.7	28.2	28.6	26.7	28.5	24.4	27.5
6	CICR 25-21 Bt II	29.1	30.9	27.8	25.5	24.7	29.4	27.9
7	CICR Bt 142	28.7	29.7	27.2	25.1	24.4	28.1	27.2
8	Anjali Bt	29.1	31.3	27.2	27.8	30.6	28.2	29.0
9	Sumangala Bt	30.1	31.0	31.2	28.3	26.0	30.1	29.5
10	NH 22074 Bt	28.3	30.5	27.5	26.4	24.4	29.2	27.7
11	CCH 2623 Bt	29.8	31.2	27.3	27.3	27.8	28.2	28.6
12	NH 22034 Bt	31.1	30.0	28.4	27.4	26.9	28.4	28.7

Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	9.16	9.49	9.07	5.61	8.65	8.40
2	LRA 5166 Bt	4.24	3.95	6.09	5.92	10.36	6.11
3	NH 22028 Bt	6.71	5.69	8.20	7.84	10.74	7.84
4	NH 1901 Bt (ZC Bt)	6.52	7.22	8.81	7.76	11.59	8.38
5	CICR 25-22 Bt II	4.38	3.52	6.75	9.00	9.69	6.67
6	CICR 25-21 Bt II	2.79	5.72	5.00	8.53	11.64	6.74
7	CICR Bt 142	4.49	7.21	5.44	6.62	12.59	7.27
8	Anjali Bt	9.01	6.35	7.83	5.59	10.75	7.91
9	Sumangala Bt	4.93	6.39	5.98	6.63	6.63	6.11
10	NH 22074 Bt	7.82	4.44	7.02	8.96	9.06	7.46
11	CCH 2623 Bt	4.64	4.35	5.86	5.63	9.90	6.08
12	NH 22034 Bt	2.32	1.81	5.61	3.88	8.68	4.46
	CD @ 5%	1.10	1.27	2.12	2.19	1.93	
	CV%	12.00	14.21	18.04	18.88	11.87	



Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Nanded	Nagpur	Banswara	Mean
1	CPDBt-2553	9.84	14.94	6.58	2.84	9.40	8.72
2	LRA 5166 Bt	10.86	17.00	5.48	5.44	9.51	9.66
3	NH 22028 Bt	12.04	17.43	6.21	6.51	9.41	10.32
4	NH 1901 Bt (ZC Bt)	12.21	15.22	4.68	6.60	11.12	9.97
5	CICR 25-22 Bt II	10.63	14.48	4.31	5.39	6.57	8.28
6	CICR 25-21 Bt II	13.53	20.30	4.47	5.90	6.31	10.10
7	CICR Bt 142	9.72	12.50	7.44	3.73	6.19	7.92
8	Anjali Bt	10.42	12.21	4.43	4.79	6.83	7.74
9	Sumangala Bt	10.59	16.98	4.55	5.01	6.20	8.67
10	NH 22074 Bt	12.53	15.90	4.67	3.74	9.15	9.20
11	CCH 2623 Bt	10.96	17.89	4.53	5.75	10.17	9.86
12	NH 22034 Bt	10.17	14.47	4.28	3.84	6.33	7.82
	CD @ 5%	2.18	3.56	2.99	1.28	1.55	
	CV%	11.50	13.88	3.37	15.21	11.23	

Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Bharuch	Akola	Nanded	Nagpur	Banswara	Mean	Rank	% Inc over best check
1	CPDBt-2553	19.00	24.43	12.55	15.65	8.45	18.05	16.36	3	-6.0
2	LRA 5166 Bt	15.09	20.94	9.84	11.57	11.36	19.87	14.78	9	-15.1
3	NH 22028 Bt	18.75	23.12	11.75	14.41	14.35	20.15	17.09	2	-1.8
4	NH 1901 Bt (ZC Bt)	18.73	22.44	12.69	13.48	14.37	22.71	17.40	1	0.0
5	CICR 25-22 Bt II	15.01	18.00	7.55	11.06	14.39	16.26	13.71	11	-21.2
6	CICR 25-21 Bt II	16.32	26.02	13.05	9.47	14.43	17.95	16.21	4	-6.9
7	CICR Bt 142	14.21	19.71	11.92	14.88	10.36	18.79	14.98	7	-13.9
8	Anjali Bt	19.43	18.57	12.01	13.73	10.38	17.58	15.28	6	-12.2
9	Sumangala Bt	15.52	23.37	12.45	10.53	11.64	12.83	14.39	10	-17.3
10	NH 22074 Bt	20.35	20.33	13.19	11.69	12.70	18.21	16.08	5	-7.6
11	CCH 2623 Bt	15.60	22.24	9.24	10.39	11.38	20.08	14.82	8	-14.8
12	NH 22034 Bt	12.50	16.29	7.36	9.89	7.72	15.02	11.46	12	-34.1
	CD @ 5%	2.38	3.95	3.21	2.40	2.86	2.42			
	CV%	8.40	11.43	17.67	11.38	14.28	8.03			



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pests

Table: Initial Variety Trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt-2553	9.32	4.33	-	4.96	3.29	0.00	4.38	BETL
PKV 081 Bt (ZC Bt-1)	7.85	3.60	-	3.93	1.89	0.00	3.45	BETL
LRA 5166 Bt	9.79	3.51	-	6.86	3.71	0.00	4.77	BETL
NH 22028 Bt	5.77	3.18	-	5.44	3.49	0.00	3.57	BETL
NH 1901 Bt (ZC Bt-2)	6.45	11.96	-	6.41	4.22	0.00	5.81	BETL
CICR 25-22 Bt II	6.30	4.02	-	6.21	3.11	0.00	3.93	BETL
CICR 25-21 Bt II	3.87	7.47	-	6.76	1.76	0.00	3.97	BETL
CICR Bt 142	9.27	12.24	-	5.19	3.78	0.00	6.10	BETL
Anjali Bt	9.86	9.78	-	5.17	3.27	0.00	5.62	BETL
Sumangala Bt	6.95	3.18	-	3.97	4.02	0.00	3.62	BETL
NH 22074 Bt	9.00	12.16	-	6.62	3.11	0.00	6.18	BETL
CCH 2623 Bt	11.65	14.62	-	5.42	3.91	0.00	7.12	BETL
NH 22034 Bt	4.35	7.84	-	6.58	3.71	0.00	4.50	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial Variety Trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	4.43	3.87	0.80	1.86	1.09	6.00	3.01	BETL
PKV 081 Bt (ZC Bt-1)	2.99	3.18	0.76	1.67	0.56	7.67	2.80	BETL
LRA 5166 Bt	4.09	4.64	0.82	1.82	0.96	5.22	2.93	BETL
NH 22028 Bt	2.33	3.51	0.80	1.63	0.91	4.56	2.29	BETL
NH 1901 Bt (ZC Bt-2)	2.22	2.29	0.64	1.53	0.93	4.00	1.94	BETL
CICR 25-22 Bt II	1.97	2.38	0.60	1.41	0.96	7.11	2.40	BETL
CICR 25-21 Bt II	1.37	2.36	0.60	1.18	0.53	6.33	2.06	BETL
CICR Bt 142	3.74	5.27	0.62	1.70	0.91	5.78	3.00	BETL
Anjali Bt	3.60	5.96	0.96	1.85	0.82	6.78	3.33	BETL
Sumangala Bt	2.00	5.56	0.76	2.39	1.20	8.22	3.35	BETL
NH 22074 Bt	3.36	2.00	0.98	1.62	0.96	6.00	2.49	BETL
CCH 2623 Bt	2.30	1.69	1.07	2.08	1.18	4.89	2.20	BETL
NH 22034 Bt	1.42	1.71	1.16	1.51	0.96	7.44	2.37	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	I	I	II	II	I	II	II	
PKV 081 Bt (ZC Bt-1)	I	I	II	I	I	III	II	
LRA 5166 Bt	I	I	II	I	I	II	I	
NH 22028 Bt	I	I	II	I	I	II	I	
NH 1901 Bt (ZC Bt-2)	I	I	I	I	I	II	I	
CICR 25-22 Bt II	I	I	I	I	I	III	I	
CICR 25-21 Bt II	I	I	I	0	I	II	I	
CICR Bt 142	I	II	I	I	I	II	I	
Anjali Bt	I	II	II	I	I	III	II	
Sumangala Bt	I	II	II	I	I	III	II	
NH 22074 Bt	I	I	II	I	I	II	I	
CCH 2623 Bt	I	I	II	I	I	II	I	
NH 22034 Bt	I	I	II	I	I	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	20.39	20.73	1.47	0.58	3.04	0.00	7.70	BETL
PKV 081 Bt (ZC Bt-1)	15.22	13.33	1.58	0.56	1.24	0.00	5.32	BETL
LRA 5166 Bt	16.58	12.91	1.51	0.84	3.51	0.00	5.89	BETL
NH 22028 Bt	10.26	14.31	1.27	0.59	2.76	0.00	4.86	BETL
NH 1901 Bt (ZC Bt-2)	10.52	13.04	1.56	0.33	3.20	0.00	4.77	BETL
CICR 25-22 Bt II	10.03	13.71	1.47	0.34	3.11	0.00	4.78	BETL
CICR 25-21 Bt II	7.64	14.09	1.07	0.38	1.49	0.00	4.11	BETL
CICR Bt 142	14.65	13.49	1.27	0.43	4.29	0.00	5.69	BETL
Anjali Bt	14.56	11.51	1.62	0.41	3.22	0.00	5.22	BETL
Sumangala Bt	9.45	13.73	1.33	0.54	3.78	0.00	4.81	BETL
NH 22074 Bt	19.19	20.07	1.60	0.38	2.96	0.00	7.36	BETL
CCH 2623 Bt	18.44	16.91	1.24	0.38	4.22	0.00	6.87	BETL
NH 22034 Bt	7.71	13.04	1.24	0.51	2.29	0.00	4.13	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Protected Conditions - Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	3.00	0.53	1.98	0.87	0.13	2.89	1.57	BETL
PKV 081 Bt (ZC Bt-1)	2.18	0.76	1.87	0.73	0.09	4.33	1.66	BETL
LRA 5166 Bt	2.92	0.49	2.29	0.80	0.18	2.11	1.46	BETL
NH 22028 Bt	1.55	0.58	1.71	0.72	0.09	1.56	1.03	BETL
NH 1901 Bt (ZC Bt-2)	1.57	0.33	2.00	0.94	0.20	1.00	1.01	BETL
CICR 25-22 Bt II	1.40	0.42	1.98	0.82	0.18	3.89	1.45	BETL
CICR 25-21 Bt II	0.62	0.64	1.24	0.74	0.11	3.22	1.10	BETL
CICR Bt 142	2.79	0.38	2.07	0.90	0.29	2.56	1.50	BETL
Anjali Bt	2.45	0.42	2.33	0.82	0.18	3.44	1.61	BETL
Sumangala Bt	1.64	0.38	2.18	0.89	0.09	4.78	1.66	BETL
NH 22074 Bt	2.57	0.33	2.20	0.74	0.20	2.89	1.49	BETL
CCH 2623 Bt	1.43	0.53	2.16	1.07	0.18	1.78	1.19	BETL
NH 22034 Bt	0.65	0.51	1.78	0.91	0.11	4.11	1.34	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Protected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt-2553	0.41	1.00	-	0.01	1.76	0.14	0.67	
PKV 081 Bt (ZC Bt-1)	0.62	0.91	-	0.04	1.07	0.14	0.56	
LRA 5166 Bt	0.75	0.64	-	0.02	1.78	0.18	0.67	
NH 22028 Bt	0.63	0.69	-	0.01	1.60	0.16	0.62	
NH 1901 Bt (ZC Bt-2)	0.62	1.56	-	0.03	1.82	0.17	0.84	
CICR 25-22 Bt II	0.76	0.87	-	0.02	1.58	0.16	0.68	
CICR 25-21 Bt II	0.65	1.11	-	0.00	0.93	0.20	0.58	
CICR Bt 142	0.67	1.36	-	0.02	1.64	0.18	0.77	
Anjali Bt	0.57	1.16	-	0.05	1.67	0.20	0.73	
Sumangala Bt	0.62	1.22	-	0.04	1.76	0.17	0.76	
NH 22074 Bt	0.59	1.38	-	0.07	1.49	0.18	0.74	
CCH 2623 Bt	0.56	1.00	-	0.01	1.76	0.18	0.70	
NH 22034 Bt	0.47	0.98	-	0.07	1.93	0.20	0.73	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial Variety Trial in Central Zone under Protected Conditions -*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt-2553	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
LRA 5166 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22028 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Anjali Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Sumangala Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22074 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

**Table: Initial Variety Trial in Central Zone under Protected Conditions - Spotted/
spiny Bollworms**

Name of Entry	Spotted Bollworms (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt-2553	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
LRA 5166 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22028 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Anjali Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Sumangala Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22074 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial Variety Trial in Central Zone under Protected Conditions –*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt-2553	0.24	0.00	-	0.00	0.00	0.00	0.05	BETL
PKV 081 Bt (ZC Bt-1)	0.27	0.00	-	0.00	0.00	0.00	0.05	BETL
LRA 5166 Bt	0.09	0.00	-	0.00	0.00	0.00	0.02	BETL
NH 22028 Bt	0.18	0.00	-	0.17	0.00	0.00	0.07	BETL
NH 1901 Bt (ZC Bt-2)	0.18	0.00	-	0.00	0.00	0.00	0.04	BETL
CICR 25-22 Bt II	0.18	0.00	-	0.00	0.00	0.00	0.04	BETL
CICR 25-21 Bt II	0.24	0.00	-	0.00	0.00	0.00	0.05	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Anjali Bt	0.18	0.00	-	0.00	0.00	0.00	0.04	BETL
Sumangala Bt	0.27	0.00	-	0.00	0.00	0.00	0.05	BETL
NH 22074 Bt	0.18	0.00	-	0.00	0.00	0.00	0.04	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial Variety Trial in Central Zone under Protected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm larva (No./ 10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	0.57	0.78	0.91	0.00	0.78	0.00	0.51	BETL
PKV 081 Bt (ZC Bt-1)	0.57	0.33	2.00	0.00	0.56	0.00	0.58	BETL
LRA 5166 Bt	0.87	1.33	1.69	0.00	0.78	0.00	0.78	BETL
NH 22028 Bt	0.38	0.67	1.20	0.00	0.67	0.00	0.49	BETL
NH 1901 Bt (ZC Bt-2)	0.38	0.44	2.53	0.00	1.11	0.00	0.74	BETL
CICR 25-22 Bt II	0.27	0.56	1.44	0.00	0.56	0.00	0.47	BETL
CICR 25-21 Bt II	0.38	0.78	2.11	0.00	0.78	0.00	0.67	BETL
CICR Bt 142	0.49	0.44	1.73	0.00	0.89	0.00	0.59	BETL
Anjali Bt	0.60	0.33	2.19	0.00	0.67	0.00	0.63	BETL
Sumangala Bt	0.57	0.44	1.38	0.00	0.56	0.00	0.49	BETL
NH 22074 Bt	0.95	0.67	1.11	0.00	0.89	0.00	0.60	BETL
CCH 2623 Bt	0.57	1.11	1.27	0.00	0.89	0.00	0.64	BETL
NH 22034 Bt	0.27	0.44	0.51	0.00	0.78	0.00	0.33	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Protected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt-2553	0.94	0.00	-	0.00	0.00	0.00	0.19	BETL
PKV 081 Bt (ZC Bt-1)	0.81	0.00	-	0.00	0.00	0.00	0.16	BETL
LRA 5166 Bt	0.27	3.33	-	0.00	0.00	0.00	0.72	BETL
NH 22028 Bt	0.65	1.11	-	0.00	0.00	0.00	0.35	BETL
NH 1901 Bt (ZC Bt-2)	0.57	0.56	-	0.00	0.00	0.00	0.23	BETL
CICR 25-22 Bt II	0.44	0.00	-	0.00	0.00	0.00	0.09	BETL
CICR 25-21 Bt II	0.90	1.11	-	0.00	0.00	0.00	0.40	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Anjali Bt	0.67	0.00	-	0.00	0.00	0.00	0.13	BETL
Sumangala Bt	1.00	1.11	-	0.00	0.00	0.00	0.42	BETL
NH 22074 Bt	0.71	0.56	-	0.00	0.00	0.00	0.25	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial Variety Trial in Central Zone under Protected Conditions - Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	6.55	8.89	10.00	0.00	6.67	0.00	5.35	BETL
PKV 081 Bt (ZC Bt-1)	4.35	11.11	22.22	0.00	5.56	0.00	7.21	BETL
LRA 5166 Bt	8.59	11.67	17.78	0.00	6.67	0.00	7.45	BETL
NH 22028 Bt	2.50	10.00	12.22	0.00	5.56	0.00	5.05	BETL
NH 1901 Bt (ZC Bt-2)	3.73	10.00	27.78	0.00	6.67	0.00	8.03	BETL
CICR 25-22 Bt II	3.16	9.44	17.78	0.00	4.44	0.00	5.80	BETL
CICR 25-21 Bt II	2.03	11.11	24.44	0.00	6.67	0.00	7.38	BETL
CICR Bt 142	4.53	9.44	18.89	0.00	5.56	0.00	6.40	BETL
Anjali Bt	3.47	9.44	23.33	0.00	5.56	0.00	6.97	BETL
Sumangala Bt	4.53	8.89	15.56	0.00	4.44	0.00	5.57	BETL
NH 22074 Bt	9.08	10.00	12.22	0.00	5.56	0.00	6.14	BETL
CCH 2623 Bt	4.35	11.11	14.44	0.00	6.67	0.00	6.10	BETL
NH 22034 Bt	2.03	8.33	5.56	0.00	5.56	0.00	3.58	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Protected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	9.34	6.67	11.05	3.76	10.34	0.00	6.86	
PKV 081 Bt (ZC Bt-1)	6.24	4.00	20.57	11.49	7.36	0.00	8.28	
LRA 5166 Bt	8.06	6.67	18.07	7.62	10.82	0.00	8.54	
NH 22028 Bt	4.44	4.00	14.87	14.38	12.54	0.00	8.37	
NH 1901 Bt (ZC Bt-2)	6.23	6.00	30.01	4.58	10.56	0.00	9.56	
CICR 25-22 Bt II	7.35	4.00	19.04	4.14	5.86	0.00	6.73	
CICR 25-21 Bt II	3.98	4.67	21.95	13.79	8.34	0.00	8.79	
CICR Bt 142	7.17	4.67	19.03	6.82	10.31	0.00	8.00	
Anjali Bt	6.65	4.00	24.09	20.80	8.78	0.00	10.72	
Sumangala Bt	4.75	3.33	14.43	15.38	7.95	0.00	7.64	
NH 22074 Bt	10.30	5.33	11.82	17.51	10.60	0.00	9.26	
CCH 2623 Bt	5.29	3.33	16.01	15.63	9.99	0.00	8.37	
NH 22034 Bt	3.28	2.67	7.55	15.15	8.76	0.00	6.24	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Protected Conditions- Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	4.39	3.67	2.97	1.50	4.30	0.00	2.80	
PKV 081 Bt (ZC Bt-1)	3.16	2.33	7.03	4.31	2.84	0.00	3.28	
LRA 5166 Bt	4.17	4.17	5.48	2.62	4.34	0.00	3.46	
NH 22028 Bt	1.73	2.50	4.60	5.31	5.35	0.00	3.25	
NH 1901 Bt (ZC Bt-2)	3.10	3.83	10.10	2.61	4.17	0.00	3.97	
CICR 25-22 Bt II	3.82	2.83	6.85	1.72	2.39	0.00	2.94	
CICR 25-21 Bt II	1.97	3.17	7.50	4.31	3.27	0.00	3.37	
CICR Bt 142	3.69	3.33	6.49	3.22	3.88	0.00	3.44	
Anjali Bt	3.49	3.00	8.65	8.40	3.49	0.00	4.51	
Sumangala Bt	2.46	2.17	5.77	5.13	3.11	0.00	3.11	
NH 22074 Bt	5.02	4.00	3.65	5.84	4.08	0.00	3.76	
CCH 2623 Bt	2.59	2.17	5.08	5.86	3.59	0.00	3.21	
NH 22034 Bt	1.43	1.50	2.39	6.06	3.51	0.00	2.48	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Protected Conditions - No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
CPDBt-2553	5.00	3.00	5.00	-	3.00	4.00	4.00	
PKV 081 Bt (ZC Bt-1)	5.00	3.00	5.00	-	3.00	4.00	4.00	
LRA 5166 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
NH 22028 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
NH 1901 Bt (ZC Bt-2)	5.00	3.00	5.00	-	3.00	4.00	4.00	
CICR 25-22 Bt II	5.00	3.00	5.00	-	3.00	4.00	4.00	
CICR 25-21 Bt II	5.00	3.00	5.00	-	3.00	4.00	4.00	
CICR Bt 142	5.00	3.00	5.00	-	3.00	4.00	4.00	
Anjali Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
Sumangala Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
NH 22074 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
CCH 2623 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
NH 22034 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 15 (a): Initial Evaluation Trial of Hirsutum Varieties - Rainfed (IET Variety RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions													
			Bharuch				CICR, Nagpur									
			BLB		ALS		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
4	53101	CPDBt-2553	0.0	DF	3.2	R	10.8	R	0.0	DF	0.0	DF	31.9	MR	32.8	MR
8	53102	PKV 081 Bt (ZC Bt-1)	2.2	R	3.5	R	23.8	R	5.5	R	0.0	DF	25.8	MR	25.8	MR
12	53103	LRA 5166 Bt	1.8	R	1.5	R	10.6	R	0.0	DF	11.0	R	31.9	MR	29.2	MR
1	53104	NH 22028 Bt	2.7	R	2.2	R	22.9	R	2.8	R	0.0	DF	26.7	MR	27.5	MR
13	53105	NH 1901 Bt (ZC Bt-2)	1.8	R	2.3	R	16.4	R	0.0	DF	0.0	DF	32.8	MR	48.0	MR
3	53106	CICR 25-22 Bt II	0.0	DF	1.7	R	35.0	MR	2.8	R	0.0	DF	24.7	R	34.4	MR
6	53107	CICR 25-21 Bt II	1.3	R	2.2	R	22.5	R	0.0	DF	0.0	DF	34.4	MR	39.9	MR
10	53108	CICR Bt 142	0.0	DF	3.2	R	12.2	R	2.8	R	5.5	R	31.9	MR	46.1	MR
2	53109	Anjali Bt	1.3	R	0.0	R	12.8	R	0.0	DF	16.6	R	27.5	MR	27.5	MR
9	53110	Sumangala Bt	0.0	R	2.3	R	43.6	MR	2.8	R	8.3	R	35.3	MR	32.8	MR
5	53111	NH 22074 Bt	0.0	R	4.7	R	26.3	MR	13.8	R	11.1	R	27.5	MR	43.6	MR
7	53112	CCH 2623 Bt	1.3	R	4.2	R	15.8	R	8.3	R	10.8	R	33.6	MR	37.2	MR
11	53113	NH 22034 Bt	1.8	R	2.5	R	22.2	R	0.0	DF	2.8	R	33.6	MR	27.5	MR



Table 15(b): Initial Evaluation Trial of Hirsutum Varieties - Rainfed (IET Variety RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions															
			Surat				PDKV, Akola						Nanded					
			BLB		ALS		BLB		GM		MLS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
4	53101	CPDBt-2553	0.0	DF	2.5	R	5.0	R	6.3	R	18.8	R	0.0	DF	0.0	DF	5.8	R
8	53102	PKV 081 Bt (ZC Bt-1)	6.2	R	3.8	R	8.8	R	8.8	R	31.3	MR	0.0	DF	2.4	R	5.7	R
12	53103	LRA 5166 Bt	8.8	R	0.0	DF	11.3	R	10.0	R	25.0	R	3.8	R	3.1	R	5.7	R
1	53104	NH 22028 Bt	0.0	DF	2.0	R	15.0	R	11.3	R	17.5	R	2.9	R	0.0	DF	6.3	R
13	53105	NH 1901 Bt (ZC Bt-2)	0.0	DF	0.0	DF	5.0	R	12.5	R	13.8	R	2.9	R	0.0	DF	7.1	R
3	53106	CICR 25-22 Bt II	0.0	DF	0.0	DF	7.5	R	8.8	R	26.3	MR	3.2	R	3.7	R	5.5	R
6	53107	CICR 25-21 Bt II	0.0	DF	0.0	DF	6.3	R	32.5	MR	23.8	R	5.1	R	1.8	R	6.7	R
10	53108	CICR Bt 142	0.0	DF	0.0	DF	3.8	R	30.0	MR	22.5	R	3.7	R	3.1	R	5.7	R
2	53109	Anjali Bt	16.8	R	0.0	DF	22.5	R	6.3	MR	21.3	R	4.1	R	5.2	R	4.9	R
9	53110	Sumangala Bt	35.2	MR	0.0	DF	26.3	MR	8.8	R	22.5	R	4.3	R	5.1	R	6.8	R
5	53111	NH 22074 Bt	0.0	DF	0.0	DF	16.3	R	10.0	R	27.5	MR	3.6	R	6.1	R	5.7	R
7	53112	CCH 2623 Bt	36.2	MR	0.0	DF	3.8	R	12.5	R	20.0	R	4.8	R	7.7	R	4.9	R
11	53113	NH 22034 Bt	0.0	DF	0.0	DF	6.3	R	6.3	R	16.3	R	4.9	R	3.7	R	5.8	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	11.47	6.47	-	2.11	9.53	0.00	5.92	BETL
PKV 081 Bt (ZC Bt-1)	10.00	4.40	-	2.47	5.67	0.00	4.51	BETL
LRA 5166 Bt	12.87	5.40	-	1.78	11.60	0.00	6.33	BETL
NH 22028 Bt	7.07	5.13	-	2.31	10.27	0.00	4.96	BETL
NH 1901 Bt (ZC Bt-2)	7.60	24.93	-	3.78	12.33	0.00	9.73	BETL
CICR 25-22 Bt II	8.27	7.47	-	2.40	10.53	0.00	5.73	BETL
CICR 25-21 Bt II	6.47	11.60	-	4.24	5.67	0.00	5.60	BETL
CICR Bt 142	12.20	20.40	-	4.31	12.47	0.00	9.88	BETL
Anjali Bt	11.87	16.53	-	3.31	10.80	0.00	8.50	BETL
Sumangala Bt	7.93	4.87	-	3.76	12.00	0.00	5.71	BETL
NH 22074 Bt	11.93	21.27	-	3.47	9.00	0.00	9.13	BETL
CCH 2623 Bt	10.53	25.80	-	2.73	12.20	0.00	10.25	AETL
NH 22034 Bt	5.67	16.13	-	3.78	12.53	0.00	7.62	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	5.27	4.73	-	2.73	3.13	6.89	4.55	BETL
PKV 081 Bt (ZC Bt-1)	3.27	4.33	-	2.33	1.60	8.22	3.95	BETL
LRA 5166 Bt	4.73	5.27	-	3.33	3.07	5.89	4.46	BETL
NH 22028 Bt	2.53	4.07	-	3.13	2.67	5.11	3.50	BETL
NH 1901 Bt (ZC Bt-2)	2.40	2.33	-	2.64	2.80	4.56	2.95	BETL
CICR 25-22 Bt II	2.47	2.53	-	2.64	3.33	7.44	3.68	BETL
CICR 25-21 Bt II	1.53	2.73	-	2.04	1.80	7.00	3.02	BETL
CICR Bt 142	4.07	6.73	-	2.16	2.80	6.22	4.40	BETL
Anjali Bt	4.13	7.73	-	3.31	2.60	7.22	5.00	BETL
Sumangala Bt	2.40	6.87	-	3.58	3.53	8.89	5.05	BETL
NH 22074 Bt	3.80	3.00	-	2.29	2.80	6.56	3.69	BETL
CCH 2623 Bt	2.60	1.87	-	2.93	3.73	5.67	3.36	BETL
NH 22034 Bt	1.80	2.60	-	1.76	3.20	7.89	3.45	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	I	I	-	II	II	III	II	
PKV 081 Bt (ZC Bt-1)	I	I	-	I	I	III	I	
LRA 5166 Bt	I	I	-	I	II	II	I	
NH 22028 Bt	I	I	-	I	II	II	I	
NH 1901 Bt (ZC Bt-2)	I	I	-	I	II	II	I	
CICR 25-22 Bt II	I	I	-	I	II	III	II	
CICR 25-21 Bt II	I	I	-	I	I	III	I	
CICR Bt 142	I	II	-	I	II	II	II	
Anjali Bt	I	III	-	II	II	III	II	
Sumangala Bt	I	III	-	I	II	III	II	
NH 22074 Bt	I	I	-	I	II	III	II	
CCH 2623 Bt	I	I	-	I	II	II	I	
NH 22034 Bt	I	I	-	I	II	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	22.60	21.93	-	0.22	8.87	0.00	10.72	BETL
PKV 081 Bt (ZC Bt-1)	18.00	13.53	-	0.84	3.80	0.00	7.24	BETL
LRA 5166 Bt	18.93	12.33	-	0.49	10.93	0.00	8.54	BETL
NH 22028 Bt	13.47	15.13	-	0.36	8.09	0.00	7.41	BETL
NH 1901 Bt (ZC Bt-2)	12.87	14.33	-	1.04	9.47	0.00	7.54	BETL
CICR 25-22 Bt II	13.53	17.93	-	0.82	11.07	0.00	8.67	BETL
CICR 25-21 Bt II	11.47	15.80	-	0.98	5.22	0.00	6.69	BETL
CICR Bt 142	17.60	12.60	-	0.38	13.80	0.00	8.88	BETL
Anjali Bt	17.20	15.33	-	0.76	10.93	0.00	8.84	BETL
Sumangala Bt	13.33	14.27	-	0.42	11.07	0.00	7.82	BETL
NH 22074 Bt	19.87	21.93	-	0.27	8.33	0.00	10.08	BETL
CCH 2623 Bt	20.47	19.67	-	0.42	13.33	0.00	10.78	BETL
NH 22034 Bt	12.13	11.27	-	0.20	8.13	0.00	6.35	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	3.33	0.80	-	0.80	0.47	3.48	1.78	BETL
PKV 081 Bt (ZC Bt-1)	2.73	1.47	-	0.51	0.27	5.11	2.02	BETL
LRA 5166 Bt	2.67	0.73	-	0.67	0.60	2.55	1.44	BETL
NH 22028 Bt	1.60	1.13	-	0.60	0.47	1.89	1.14	BETL
NH 1901 Bt (ZC Bt-2)	1.80	0.53	-	0.73	0.67	1.78	1.10	BETL
CICR 25-22 Bt II	1.73	0.60	-	0.60	0.73	4.67	1.67	BETL
CICR 25-21 Bt II	0.93	1.13	-	0.24	0.27	3.89	1.29	BETL
CICR Bt 142	3.20	0.60	-	0.87	0.80	2.89	1.67	BETL
Anjali Bt	2.67	0.73	-	1.16	0.60	4.00	1.83	BETL
Sumangala Bt	1.93	0.73	-	0.51	0.47	5.11	1.75	BETL
NH 22074 Bt	2.93	0.47	-	0.38	0.67	3.44	1.58	BETL
CCH 2623 Bt	1.73	0.73	-	0.69	0.60	2.44	1.24	BETL
NH 22034 Bt	0.87	1.00	-	0.51	0.47	4.89	1.55	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	0.40	1.27	-	0.04	3.82	0.23	1.15	
PKV 081 Bt (ZC Bt-1)	0.73	1.67	-	0.02	2.49	0.18	1.02	
LRA 5166 Bt	0.87	0.93	-	0.02	4.09	0.22	1.23	
NH 22028 Bt	0.67	1.13	-	0.07	3.69	0.20	1.15	
NH 1901 Bt (ZC Bt-2)	0.80	3.00	-	0.02	4.29	0.20	1.66	
CICR 25-22 Bt II	0.87	1.40	-	0.02	3.62	0.21	1.22	
CICR 25-21 Bt II	0.67	1.60	-	0.09	2.29	0.23	0.98	
CICR Bt 142	0.67	2.33	-	0.02	3.89	0.23	1.43	
Anjali Bt	0.73	1.60	-	0.02	3.82	0.23	1.28	
Sumangala Bt	0.73	1.60	-	0.02	4.04	0.20	1.32	
NH 22074 Bt	0.87	2.27	-	0.07	3.16	0.21	1.31	
CCH 2623 Bt	0.73	2.13	-	0.07	4.13	0.21	1.46	
NH 22034 Bt	0.53	1.40	-	0.07	4.42	0.24	1.33	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Unprotected Conditions -*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
LRA 5166 Bt	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
NH 22028 Bt	0.00	0.00	-	0.00	0.27	0.00	0.05	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
CICR 25-22 Bt II	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
CICR 25-21 Bt II	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.27	0.00	0.05	BETL
Anjali Bt	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
Sumangala Bt	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
NH 22074 Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.20	0.00	0.04	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Spotted/spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
LRA 5166 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22028 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Anjali Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Sumangala Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22074 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Unprotected Conditions –*Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
LRA 5166 Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
NH 22028 Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
NH 1901 Bt (ZC Bt-2)	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
Anjali Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
Sumangala Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22074 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
NH 22034 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	1.00	1.00	-	0.00	4.33	0.00	1.27	AETL
PKV 081 Bt (ZC Bt-1)	0.67	0.67	-	0.00	3.33	0.00	0.93	BETL
LRA 5166 Bt	1.33	1.67	-	1.00	4.67	0.00	1.73	AETL
NH 22028 Bt	0.67	0.67	-	1.00	4.00	0.00	1.27	AETL
NH 1901 Bt (ZC Bt-2)	0.67	1.00	-	0.00	5.33	0.00	1.40	AETL
CICR 25-22 Bt II	0.33	1.00	-	0.00	3.00	0.00	0.87	BETL
CICR 25-21 Bt II	0.67	1.00	-	0.00	4.00	0.00	1.13	AETL
CICR Bt 142	0.33	0.67	-	0.00	5.33	0.00	1.27	AETL
Anjali Bt	0.67	0.33	-	0.00	4.67	0.00	1.13	AETL
Sumangala Bt	0.67	0.67	-	0.00	3.33	0.00	0.93	BETL
NH 22074 Bt	1.33	1.00	-	0.00	4.67	0.00	1.40	AETL
CCH 2623 Bt	0.67	1.00	-	0.00	5.33	0.00	1.40	AETL
NH 22034 Bt	0.33	0.67	-	0.00	4.67	0.00	1.13	AETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



**Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Green Boll
Damage due to ABW/SBW/TC**

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	0.00	0.00	-	0.00	1.57	0.00	0.31	BETL
PKV 081 Bt (ZC Bt-1)	0.00	0.00	-	0.00	1.23	0.00	0.25	BETL
LRA 5166 Bt	0.00	3.33	-	10.00	1.67	0.00	3.00	BETL
NH 22028 Bt	0.00	1.67	-	10.00	2.07	0.00	2.75	BETL
NH 1901 Bt (ZC Bt-2)	0.00	1.67	-	0.00	1.63	0.00	0.66	BETL
CICR 25-22 Bt II	0.00	0.00	-	0.00	1.13	0.00	0.23	BETL
CICR 25-21 Bt II	0.00	0.00	-	0.00	1.60	0.00	0.32	BETL
CICR Bt 142	0.00	0.00	-	0.00	1.90	0.00	0.38	BETL
Anjali Bt	0.00	0.00	-	0.00	1.73	0.00	0.35	BETL
Sumangala Bt	0.00	1.67	-	0.00	1.20	0.00	0.57	BETL
NH 22074 Bt	0.00	1.67	-	0.00	1.60	0.00	0.65	BETL
CCH 2623 Bt	0.00	0.00	-	0.00	1.67	0.00	0.33	BETL
NH 22034 Bt	0.00	0.00	-	0.00	1.57	0.00	0.31	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Green Boll
Damage (Pink Bollworm)**

Name of Entry	Green Boll Damage (%) /10 bolls destructive Sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	16.67	13.33	-	0.00	33.33	0.00	12.67	AETL
PKV 081 Bt (ZC Bt-1)	6.67	6.67	-	0.00	26.67	0.00	8.00	BETL
LRA 5166 Bt	13.33	8.33	-	10.00	36.67	0.00	13.67	AETL
NH 22028 Bt	6.67	13.33	-	10.00	43.33	0.00	14.67	AETL
NH 1901 Bt (ZC Bt-2)	6.67	10.00	-	0.00	35.56	0.00	10.44	AETL
CICR 25-22 Bt II	3.33	8.33	-	0.00	23.33	0.00	7.00	BETL
CICR 25-21 Bt II	6.67	10.00	-	0.00	33.33	0.00	10.00	AETL
CICR Bt 142	3.33	10.00	-	0.00	36.67	0.00	10.00	AETL
Anjali Bt	10.00	6.67	-	0.00	33.33	0.00	10.00	AETL
Sumangala Bt	6.67	6.67	-	0.00	26.67	0.00	8.00	BETL
NH 22074 Bt	13.33	11.67	-	0.00	33.33	0.00	11.67	AETL
CCH 2623 Bt	6.67	8.33	-	0.00	36.67	0.00	10.33	AETL
NH 22034 Bt	3.33	6.67	-	0.00	35.56	0.00	9.11	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety Trial in Central Zone under Unprotected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	8.39	6.00	-	0.00	30.97	0.00	9.07	
PKV 081 Bt (ZC Bt-1)	6.36	6.00	-	0.00	25.41	0.00	7.55	
LRA 5166 Bt	8.35	4.00	-	0.00	34.90	0.00	9.45	
NH 22028 Bt	5.47	6.00	-	0.00	40.49	0.00	10.39	
NH 1901 Bt (ZC Bt-2)	6.74	6.00	-	0.00	34.06	0.00	9.36	
CICR 25-22 Bt II	7.45	6.00	-	0.00	21.42	0.00	6.97	
CICR 25-21 Bt II	4.89	4.00	-	13.46	31.30	0.00	10.73	
CICR Bt 142	7.98	6.00	-	1.67	35.57	0.00	10.24	
Anjali Bt	7.30	6.00	-	1.85	31.91	0.00	9.41	
Sumangala Bt	5.21	6.00	-	0.00	25.42	0.00	7.33	
NH 22074 Bt	11.56	6.00	-	13.11	32.00	0.00	12.53	
CCH 2623 Bt	6.44	4.00	-	9.80	34.67	0.00	10.98	
NH 22034 Bt	4.74	4.00	-	15.15	35.03	0.00	11.78	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety Trial in Central Zone under Unprotected Conditions- Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt-2553	4.25	2.00	-	0.00	12.85	0.00	3.82	
PKV 081 Bt (ZC Bt-1)	3.33	3.00	-	0.00	9.81	0.00	3.23	
LRA 5166 Bt	4.21	3.00	-	0.00	13.88	0.00	4.22	
NH 22028 Bt	2.66	3.50	-	0.00	17.21	0.00	4.67	
NH 1901 Bt (ZC Bt-2)	3.21	2.50	-	0.00	13.43	0.00	3.83	
CICR 25-22 Bt II	3.75	3.00	-	0.00	8.72	0.00	3.09	
CICR 25-21 Bt II	2.51	3.00	-	4.33	12.11	0.00	4.39	
CICR Bt 142	3.73	4.00	-	0.83	13.36	0.00	4.38	
Anjali Bt	3.62	2.50	-	0.93	12.63	0.00	3.93	
Sumangala Bt	2.71	2.50	-	0.00	9.97	0.00	3.04	
NH 22074 Bt	6.28	2.50	-	5.33	12.35	0.00	5.29	
CCH 2623 Bt	3.46	2.50	-	3.92	12.57	0.00	4.49	
NH 22034 Bt	2.61	2.00	-	6.06	14.05	0.00	4.94	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 15 (c): Initial Evaluation Trial of Hirsutum Varieties - Rainfed (IET Variety RF) under Unprotected conditions

Code -I	Code -II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																							
			Surat				Bharuch				CICR, Nagpur								Nanded							
			BLB		ALS		BLB		ALS		FFS		TSV		BLB		Boll rot		GM		CLS		BLB		GM	
			PD I	D R	PD I	D R	PD I	D R	PD I	D R	PDI	D R	PDI	D R	PD I	D R	PDI	DR	PDI	DR	PD I	D R	PD I	D R	PDI	D R
4	53101	CPDBt-2553	14.5	R	0.0	DF	0.0	DF	2.0	R	19.3	R	11.0	R	8.3	R	44.3	MR	44.3	MR	0.0	DF	0.0	DF	13.5	R
8	53102	PKV 081 Bt (ZC Bt-1)	0.0	DF	0.0	DF	2.0	R	4.0	R	27.7	MR	16.6	R	11.0	R	38.8	MR	36.0	MR	0.0	DF	7.4	R	14.7	R
12	53103	LRA 5166 Bt	31.5	MR	0.0	DF	1.0	R	1.5	R	16.5	R	11.0	R	19.3	R	41.5	MR	41.6	MR	9.4	R	7.2	R	14.4	R
1	53104	NH 22028 Bt	0.0	DF	10.0	R	2.0	R	3.5	R	36.0	MR	13.8	R	8.3	R	33.3	MR	36.0	MR	7.4	R	0.0	DF	15.5	R
13	53105	NH 1901 Bt (ZC Bt-2)	0.0	DF	8.0	R	1.5	R	2.5	R	27.7	MR	8.3	R	11.0	R	41.5	MR	55.5	MS	7.9	R	0.0	DR	16.3	R
3	53106	CICR 25-22 Bt II	0.0	DF	3.5	R	0.0	DF	1.5	R	41.6	MR	13.8	R	11.0	R	36.0	MR	44.3	MR	7.8	R	8.9	R	15.8	R
6	53107	CICR 25-21 Bt II	9.5	R	4.5	R	1.0	R	2.0	R	30.4	MR	13.8	R	11.0	R	41.6	MR	47.2	MR	9.4	R	7.9	R	13.6	R
10	53108	CICR Bt 142	0.0	DF	6.5	R	0.0	DF	3.5	R	19.3	R	13.8	R	13.8	R	41.5	MR	55.4	MS	8.5	R	9.3	R	14.3	R
2	53109	Anjali Bt	0.0	DF	4.0	R	1.0	R	1.5	R	16.6	R	11.0	R	24.9	R	36.0	MR	36.0	MR	7.9	R	8.7	R	11.7	R
9	53110	Sumangala Bt	0.0	DF	5.0	R	1.0	R	1.5	R	49.8	MR	13.8	R	16.6	R	41.6	MR	41.6	MR	7.4	R	10.1	R	15.1	R
5	53111	NH 22074 Bt	0.0	DF	0.0	DF	1.0	R	4.5	R	35.2	MR	27.7	MR	24.9	R	38.8	MR	52.7	MS	7.9	R	10.7	R	13.4	R
7	53112	CCH 2623 Bt	0.0	DF	5.5	R	1.5	R	3.5	R	22.2	R	22.1	R	18.5	R	41.6	MR	44.3	MR	8.3	R	10.5	R	10.1	R
11	53113	NH 22034 Bt	0.0	DF	9.5	R	1.0	R	2.0	R	30.5	MR	8.3	R	13.8	R	44.4	MR	38.8	MR	8.9	R	8.6	R	12.9	R



Advanced Evaluation Trial of Hirsutum Varieties (II)- Rainfed

Constitution of Trial

The trial was constituted with two Bt cotton varieties containing deregulated event along with four different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	1	53121	CPDBt 2454	Dharwad
2	6	53122	PKV 081 Bt (ZC Bt-2)	
3	3	53123	Suraj Bt (ZC Bt-1)	
4	5	53124	Local Check NBt	
5	4	53125	NH 615 (Zonal Check NBt)	
6	2	53126	NH 22067 Bt	Nanded

The trial was conducted in six locations viz., NAU, Surat; NAU, Bharuch; PDKV, Akola; VNMKV, Nanded; MPUAT, Banswara and ICAR-CICR, Nagpur.

The zonal check variety **PKV 081 Bt (ZC Bt-1)** was not released for the central zone under rainfed conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

Spacing: Two separate trials viz., one with recommended spacing for the variety and another with half the spacing between plants have been followed.

Number of rows: 4 rows of 6 meters per entry with three replications

Data recorded:

Biometric evaluation

Plant height (cm) at harvest in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	150.8	140.9	100.3	142.3	111.0	147.8	132.2
3	Suraj Bt (ZC Bt)	118.8	108.7	70.8	116.1	95.5	109.5	103.2
4	Local Check NBt	150.0	149.7	108.7	154.8	116.0	145.0	137.4
5	NH 615 (Zonal Check NBt)	113.3	122.4	94.8	115.8	102.5	120.8	111.6
6	NH 22067 Bt	155.8	139.3	104.6	188.5	114.3	156.3	143.1
	CD @ 5%	14.2	15.0	11.2	22.3	22.7	12.7	
	CV%	6.6	7.6	7.7	9.9	13.5	6.1	



Number of monopodia in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	1.2	1.5	1.5	1.3	0.5	2.0	1.3
3	Suraj Bt (ZC Bt)	1.4	2.4	2.1	1.3	0.4	2.5	1.7
4	Local Check NBt	1.1	0.9	1.3	1.2	0.4	2.0	1.2
5	NH 615 (Zonal Check NBt)	1.2	1.5	1.3	1.3	0.4	3.0	1.5
6	NH 22067 Bt	1.3	1.1	1.3	1.8	0.5	2.8	1.5
	CD @ 5%	0.2	0.4	0.1	NS	0.4	1.0	
	CV%	9.9	18.8	6.6	23.7	20.0	27.3	

Number of sympodia in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	24.0	18.5	13.7	27.1	23.4	42.8	24.9
3	Suraj Bt (ZC Bt)	20.3	20.9	12.2	25.6	20.6	38.8	23.1
4	Local Check NBt	25.0	18.1	15.1	27.7	21.0	42.0	24.8
5	NH 615 (Zonal Check NBt)	23.5	24.5	15.0	25.8	21.7	42.8	25.6
6	NH 22067 Bt	21.0	21.3	14.4	31.2	20.0	46.5	25.7
	CD @ 5%	NS	3.3	2.1	2.6	2.9	4.7	
	CV%	11.5	10.9	9.7	6.3	8.9	7.3	

Boll weight (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	4.2	4.3	3.2	3.5	3.5	3.5	3.7
3	Suraj Bt (ZC Bt)	3.7	3.5	2.2	3.4	3.0	3.1	3.2
4	Local Check NBt	4.0	4.5	4.4	3.6	3.5	3.8	4.0
5	NH 615 (Zonal Check NBt)	3.9	3.9	3.4	3.0	3.2	3.3	3.5
6	NH 22067 Bt	4.6	4.7	3.8	3.6	4.3	4.2	4.2
	CD @ 5%	0.3	0.2	0.1	NS	0.5	0.2	
	CV%	5.4	3.6	1.6	10.8	9.3	2.8	



Number of bolls / plant in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	28.9	29.2	13.6	20.9	32.3	31.8	26.1
3	Suraj Bt (ZC Bt)	33.2	35.2	15.4	17.2	31.0	34.0	27.7
4	Local Check NBt	27.3	32.1	14.7	17.7	28.5	38.5	26.5
5	NH 615 (Zonal Check NBt)	22.9	31.3	17.4	22.4	27.7	31.8	25.6
6	NH 22067 Bt	31.5	34.4	15.2	26.2	34.0	38.0	29.9
	CD @ 5%	4.4	4.4	2.4	NS	6.4	5.1	
	CV%	10.3	9.4	11.0	21.5	13.7	10.0	

Number of bolls / sq. m. in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	53.5	54.0	77.1	70.8	191.0	89.3
3	Suraj Bt (ZC Bt)	61.4	65.1	63.5	73.9	199.3	92.6
4	Local Check NBt	50.6	59.4	65.5	74.9	228.8	95.8
5	NH 615 (Zonal Check NBt)	42.5	57.9	82.9	72.3	189.8	89.1
6	NH 22067 Bt	58.3	63.6	96.8	84.7	229.3	106.5
	CD @ 5%	8.1	8.1	NS	15.7	15.9	
	CV%	10.3	9.4	21.5	13.8	5.1	

Lint Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	5.0	5.2	6.0	4.4	4.0	5.6	5.0
3	Suraj Bt (ZC Bt)	5.3	5.2	4.3	4.3	4.0	5.0	4.7
4	Local Check NBt	4.5	5.3	3.9	4.0	4.2	4.6	4.4
5	NH 615 (Zonal Check NBt)	4.8	5.3	4.7	5.6	4.3	4.5	4.9
6	NH 22067 Bt	4.1	5.0	3.9	3.9	4.1	5.9	4.5
	CD @ 5%	0.4	0.4	0.7		0.3	0.4	
	CV%	6.3	5.6	10.5		4.3	5.0	



Seed Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	8.8	8.4	7.0	8.0	7.7	9.1	8.2
3	Suraj Bt (ZC Bt)	9.5	8.8	6.8	8.5	7.7	8.1	8.2
4	Local Check NBt	9.3	10.9	8.2	9.7	8.6	9.1	9.3
5	NH 615 (Zonal Check NBt)	8.9	9.3	8.3	10.3	8.2	7.2	8.7
6	NH 22067 Bt	9.4	10.6	8.2	9.8	9.2	10.3	9.6
	CD @ 5%	NS	0.8	0.2		1.1	0.4	
	CV%	6.5	5.6	1.6		8.7	3.2	

Ginning outturn (%) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	36.3	38.3	45.8	35.3	37.8	38.3	38.6
3	Suraj Bt (ZC Bt)	35.8	37.5	38.7	33.3	38.0	38.0	36.9
4	Local Check NBt	32.6	32.7	32.5	29.3	34.3	33.8	32.5
5	NH 615 (Zonal Check NBt)	35.1	36.3	36.2	35.3	39.1	38.5	36.8
6	NH 22067 Bt	30.3	32.1	32.3	28.3	36.7	36.3	32.7
	CD @ 5%	0.1	1.2	3.0		1.3	1.2	
	CV%	2.6	2.3	5.6		2.4	2.3	

Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	28.5	28.2	28.4	27.5	26.9	26.2	27.6
3	Suraj Bt (ZC Bt)	28.7	28.0	25.9	28.8	27.2	25.8	27.4
4	Local Check NBt	28.5	26.8	26.7	28.3	26.1	27.1	27.3
5	NH 615 (Zonal Check NBt)	28.8	28.6	28.8	29.4	27.3	27.2	28.4
6	NH 22067 Bt	29.1	28.1	26.8	29.3	26.9	28.3	28.1



Uniformity index under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	84.0	83.5	82.0	82.0	84.0	81.0	82.8
3	Suraj Bt (ZC Bt)	82.0	82.8	82.0	83.0	81.0	80.0	81.8
4	Local Check NBt	83.0	81.9	83.0	85.0	82.0	82.0	82.8
5	NH 615 (Zonal Check NBt)	83.0	83.8	83.0	83.0	85.0	82.0	83.3
6	NH 22067 Bt	83.0	82.4	85.0	85.0	83.0	82.0	83.4

Micronaire under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	5.3	5.0	4.6	4.6	5.0	4.8	4.9
3	Suraj Bt (ZC Bt)	4.3	4.7	4.3	4.3	4.8	4.9	4.6
4	Local Check NBt	4.7	4.8	5.0	5.3	4.9	4.1	4.8
5	NH 615 (Zonal Check NBt)	4.7	4.8	4.3	5.0	4.6	4.6	4.7
6	NH 22067 Bt	5.1	4.4	4.6	4.4	4.4	5.1	4.7

Tenacity under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	29.1	30.2	28.4	24.7	26.4	27.7	27.8
3	Suraj Bt (ZC Bt)	28.6	29.5	26.2	27.6	26.8	27.1	27.6
4	Local Check NBt	29.2	29.0	27.0	29.1	26.7	29.2	28.4
5	NH 615 (Zonal Check NBt)	29.7	30.8	29.5	26.1	27.6	28.0	28.6
6	NH 22067 Bt	29.4	29.3	27.1	26.6	26.3	28.6	27.9

Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	11.49	5.25	10.05	6.77	10.65	8.84
3	Suraj Bt (ZC Bt)	10.64	3.99	6.22	6.63	10.61	7.62
4	Local Check NBt	5.48	4.26	4.10	5.56	13.03	6.49
5	NH 615 (Zonal Check NBt)	6.92	4.79	5.30	6.23	10.18	6.68
6	NH 22067 Bt	7.82	4.18	8.31	8.38	9.43	7.62
	CD @ 5%	1.40	0.70	1.82	0.76	1.62	
	CV%	11.20	11.66	18.70	7.52	10.20	



Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Nagpur	Nanded	Banswara	Mean
1	CPDBt 2454	9.10	14.62	5.24	7.23	10.85	9.41
3	Suraj Bt (ZC Bt)	10.45	16.19	3.20	7.75	9.44	9.41
4	Local Check NBt	13.15	19.22	7.00	6.14	10.07	11.12
5	NH 615 (Zonal Check NBt)	7.96	14.50	8.02	6.19	9.60	9.25
6	NH 22067 Bt	16.88	23.07	7.07	7.55	13.19	13.55
	CD @ 5%	2.10	3.41	1.06	1.60	1.36	
	CV%	12.00	13.50	11.82	15.13	8.52	

Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)

S. No.	Entries	Surat	Bharuch	Akola	Nagpur	Nanded	Banswara	Mean	Rank	% Inc over best check
1	CPDBt 2454	20.59	19.86	11.32	15.29	14.00	21.51	17.10	2	2.7
3	Suraj Bt (ZC Bt)	21.08	20.18	14.79	9.42	14.38	20.04	16.65	3	0.0
4	Local Check NBt	18.63	23.48	10.69	11.10	11.69	23.09	16.45	4	-1.2
5	NH 615 (Zonal Check NBt)	14.88	19.29	13.25	13.32	12.42	19.78	15.49	5	-7.0
6	NH 22067 Bt	24.70	27.24	14.41	15.38	15.93	22.61	20.05	1	20.4
	CD @ 5%	3.50	3.77	2.20	2.46	1.71	2.36			
	CV%	11.80	12.05	12.00	13.26	8.24	7.42			



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced Variety Trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt 2454	6.19	6.88	-	8.10	3.32	0.00	4.90	BETL
PKV 081 Bt	3.99	6.86	-	6.89	3.63	0.00	4.27	BETL
Suraj Bt	4.44	4.97	-	7.15	4.22	0.00	4.15	BETL
Local Check NBt	2.81	6.83	-	6.78	2.98	0.00	3.88	BETL
NH 615	7.63	7.08	-	6.19	1.72	0.00	4.52	BETL
NH 22067 Bt	1.61	9.80	-	8.22	2.85	0.00	4.49	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	4.01	5.50	2.30	1.78	0.98	6.22	3.47	BETL
PKV 081 Bt	1.88	2.57	1.15	1.73	0.68	7.56	2.59	BETL
Suraj Bt	1.45	2.07	1.68	1.81	0.75	6.56	2.38	BETL
Local Check NBt	1.08	2.25	1.53	1.86	0.88	4.00	1.93	BETL
NH 615	3.13	1.72	1.09	1.51	0.55	8.33	2.72	BETL
NH 22067 Bt	0.73	1.44	1.00	1.67	0.73	5.22	1.80	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	I	II	II	I	I	III	II	
PKV 081 Bt	I	I	I	I	I	III	I	
Suraj Bt	I	I	II	I	I	III	II	
Local Check NBt	I	I	II	I	I	II	I	
NH 615	I	I	I	I	I	III	I	
NH 22067 Bt	I	I	I	I	I	II	I	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety Trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	15.63	11.95	1.25	0.39	4.38	0.00	5.60	BETL
PKV 081 Bt	10.13	11.82	1.60	0.49	2.32	0.00	4.39	BETL
Suraj Bt	9.51	11.73	1.78	0.31	2.52	0.00	4.31	BETL
Local Check NBt	7.08	13.48	1.50	0.35	2.65	0.00	4.18	BETL
NH 615	15.61	13.98	1.82	0.38	1.27	0.00	5.51	BETL
NH 22067 Bt	5.53	17.56	1.28	0.43	1.28	0.00	4.35	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	2.73	0.70	2.18	1.00	0.15	2.78	1.59	BETL
PKV 081 Bt	2.02	0.60	2.55	0.83	0.17	3.67	1.64	BETL
Suraj Bt	2.02	0.47	2.27	0.97	0.15	3.22	1.51	BETL
Local Check NBt	1.07	0.63	2.28	1.03	0.07	1.56	1.11	BETL
NH 615	3.02	0.78	2.18	1.04	0.05	4.44	1.92	BETL
NH 22067 Bt	0.95	0.62	2.68	0.89	0.05	2.00	1.20	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt 2454	0.38	0.93	-	0.03	1.63	0.17	0.63	
PKV 081 Bt	0.50	0.83	-	0.03	1.77	0.21	0.67	
Suraj Bt	0.41	0.98	-	0.02	1.93	0.14	0.70	
Local Check NBt	0.51	0.85	-	0.02	1.38	0.20	0.59	
NH 615	0.58	1.37	-	0.01	1.03	0.16	0.63	
NH 22067 Bt	0.60	1.58	-	0.02	1.43	0.20	0.77	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara, * Data not given



Table: Advanced Variety Trial in Central Zone under Protected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt 2454	0.43	0.00	-	0.00	0.00	0.00	0.09	BETL
PKV 081 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Local Check NBt	0.00	0.00	-	0.17	0.00	0.00	0.03	BETL
NH 615	0.58	0.00	-	0.00	0.00	0.00	0.12	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Spotted/ Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt 2454	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Local Check NBt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt 2454	0.55	0.00	-	0.00	0.00	0.00	0.11	BETL
PKV 081 Bt	0.13	0.00	-	0.00	0.00	0.00	0.03	BETL
Suraj Bt	0.13	0.00	-	0.00	0.00	0.00	0.03	BETL
Local Check NBt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.41	0.00	-	0.00	0.00	0.00	0.08	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Advanced Variety Trial in Central Zone under Protected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	0.83	0.25	0.81	0.34	0.50	0.00	0.45	BETL
PKV 081 Bt	0.64	1.00	1.32	0.00	0.75	0.00	0.62	BETL
Suraj Bt	0.58	0.67	2.05	0.34	0.33	0.00	0.66	BETL
Local Check NBt	0.27	0.42	1.80	0.34	0.67	0.00	0.58	BETL
NH 615	0.90	0.50	2.99	0.00	0.33	0.00	0.79	BETL
NH 22067 Bt	0.35	0.56	2.58	0.00	0.25	0.00	0.62	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CPDBt 2454	2.44	2.08	-	0.00	0.00	0.00	0.90	BETL
PKV 081 Bt	0.57	0.83	-	0.00	0.00	0.00	0.28	BETL
Suraj Bt	0.64	0.00	-	0.00	0.00	0.00	0.13	BETL
Local Check NBt	0.00	0.00	-	10.00	0.00	0.00	2.00	BETL
NH 615	1.56	1.67	-	0.00	0.00	0.00	0.65	BETL
NH 22067 Bt	0.48	0.00	-	0.00	0.00	0.00	0.10	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety Trial in Central Zone under Protected Conditions - Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	8.93	6.67	8.33	0.00	4.17	0.00	4.68	BETL
PKV 081 Bt	3.36	8.75	13.33	0.00	6.67	0.00	5.35	BETL
Suraj Bt	4.40	9.58	20.83	0.00	3.33	0.00	6.36	BETL
Local Check NBt	1.79	9.17	18.33	0.00	5.83	0.00	5.85	BETL
NH 615	9.62	8.75	30.83	0.00	3.33	0.00	8.76	BETL
NH 22067 Bt	2.95	8.33	26.67	0.00	2.50	0.00	6.74	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety Trial in Central Zone under Protected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	13.16	4.50	9.96	11.52	3.86	0.00	7.17	
PKV 081 Bt	6.06	3.50	14.92	15.15	5.01	0.00	7.44	
Suraj Bt	7.47	3.50	22.99	8.21	2.93	0.00	7.52	
Local Check NBt	4.39	4.00	19.76	5.21	4.98	0.00	6.39	
NH 615	12.84	4.00	33.38	10.26	2.41	0.00	10.48	
NH 22067 Bt	4.99	3.50	26.54	12.30	1.08	0.00	8.07	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Protected Conditions- Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	6.88	2.13	3.53	3.14	1.93	0.00	2.93	
PKV 081 Bt	3.26	1.75	5.55	5.56	2.52	0.00	3.11	
Suraj Bt	3.81	1.63	7.91	2.99	1.39	0.00	2.95	
Local Check NBt	2.28	2.63	6.25	2.08	2.54	0.00	2.63	
NH 615	6.36	2.75	12.30	3.63	1.13	0.00	4.36	
NH 22067 Bt	2.48	2.25	10.16	3.89	0.54	0.00	3.22	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Protected Conditions- No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
CPDBt 2454	5.00	3.00	5.00	-	3.00	4.00	4.00	
PKV 081 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
Suraj Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	
Local Check NBt	5.00	3.00	5.00	-	3.00	4.00	4.00	
NH 615	5.00	3.00	5.00	-	3.00	4.00	4.00	
NH 22067 Bt	5.00	3.00	5.00	-	3.00	4.00	4.00	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 16 (a) Advanced Evaluation Trial – II of Hirsutum Varieties– Rainfed (AET-II Variety RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions (Normal spacing)															
			Nanded								CICR, Nagpur							
			CLS		BLB		GM		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	53121	CPDBt 2454	0.0	DF	0.0	DF	5.9	R	14.2	R	2.8	R	5.5	R	26.7	MR	30.0	MR
6	53122	PKV 081 Bt (ZC Bt-2)	3.3	R	5.9	R	4.4	R	15.5	R	8.3	R	13.8	R	13.5	R	32.8	MR
3	53123	Suraj Bt (ZC Bt-1)	5.1	R	5.6	R	5.8	R	24.3	R	5.5	R	19.4	R	16.6	R	36.1	MR
5	53124	Local Check NBt	5.4	R	5.6	R	6.0	R	18.0	R	2.8	R	8.3	R	23.6	R	33.6	MR
4	53125	NH 615 (Zonal Check NBt)	3.7	R	0.0	DF	5.5	R	23.8	R	0.0	DF	11.1	R	21.1	R	31.1	MR
2	53126	NH 22067 Bt	3.0	R	5.0	R	5.9	R	16.3	R	8.3	R	0.0	DF	22.7	R	31.1	MR

Table 16 (b) Advanced Evaluation Trial – II of Hirsutum Varieties– Rainfed (AET-II Variety RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions (Normal spacing)													
			Bharuch				Surat				PDKV, Akola					
			BLB		ALS		BLB		ALS		BLB		GM		MLS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	53121	CPDBt 2454	0.0	DF	2.6	R	18.1	R	0.0	DF	7.5	R	6.3	R	30.0	MR
6	53122	PKV 081 Bt (ZC Bt-2)	4.0	R	5.9	R	2.5	R	2.3	R	15.0	R	7.5	R	23.8	R
3	53123	Suraj Bt (ZC Bt-1)	4.1	R	5.8	R	0.0	DF	5.0	R	10.0	R	10.0	R	20.0	R
5	53124	Local Check NBt	5.5	R	4.6	R	0.0	DF	0.0	DF	11.3	R	8.8	R	23.8	R
4	53125	NH 615 (Zonal Check NBt)	2.3	R	1.9	R	0.0	DF	2.1	R	13.8	R	5.0	R	16.3	R
2	53126	NH 22067 Bt	2.8	R	1.4	DF	0.0	DF	1.5	R	7.5	R	3.8	R	22.5	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	7.67	7.93	-	4.87	10.67	0.00	6.23	BETL
PKV 081 Bt	5.20	6.80	-	4.87	11.53	0.00	5.68	BETL
Suraj Bt	5.33	5.20	-	5.17	13.20	0.00	5.78	BETL
Local Check NBt	3.27	6.40	-	5.47	9.47	0.00	4.92	BETL
NH 615	10.07	8.80	-	4.27	5.47	0.00	5.72	BETL
NH 22067 Bt	2.67	21.33	-	7.00	9.40	0.00	8.08	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	4.93	7.20	-	2.09	3.13	6.89	4.85	BETL
PKV 081 Bt	2.00	3.87	-	2.04	2.27	8.44	3.72	BETL
Suraj Bt	1.87	2.40	-	1.69	2.33	7.56	3.17	BETL
Local Check NBt	1.60	2.40	-	1.56	2.67	5.45	2.73	BETL
NH 615	3.60	2.60	-	0.80	1.87	9.33	3.64	BETL
NH 22067 Bt	1.07	1.40	-	1.31	2.33	6.00	2.42	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	I	II	-	I	II	III	II	
PKV 081 Bt	I	I	-	I	II	III	II	
Suraj Bt	I	I	-	I	II	III	II	
Local Check NBt	I	I	-	I	II	II	I	
NH 615	I	I	-	I	II	III	II	
NH 22067 Bt	I	I	-	I	II	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	22.07	15.80	-	0.58	14.00	0.00	10.49	AETL
PKV 081 Bt	14.73	16.27	-	0.78	7.47	0.00	7.85	BETL
Suraj Bt	14.40	14.27	-	0.71	8.13	0.00	7.50	BETL
Local Check NBt	9.13	19.33	-	0.07	8.33	0.00	7.37	BETL
NH 615	20.67	19.07	-	0.00	4.00	0.00	8.75	BETL
NH 22067 Bt	8.87	23.33	-	0.31	4.20	0.00	7.34	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	3.07	1.33	-	0.62	0.47	3.22	1.74	BETL
PKV 081 Bt	2.33	0.87	-	0.73	0.53	4.44	1.78	BETL
Suraj Bt	2.27	0.73	-	0.60	0.47	3.85	1.58	BETL
Local Check NBt	1.47	0.87	-	0.60	0.33	2.00	1.05	BETL
NH 615	3.00	1.00	-	0.89	0.13	5.22	2.05	BETL
NH 22067 Bt	1.40	0.80	-	0.47	0.27	2.44	1.08	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	0.73	1.27	-	0.00	3.48	0.20	1.14	
PKV 081 Bt	0.67	1.33	-	0.11	3.75	0.27	1.23	
Suraj Bt	0.67	1.33	-	0.04	4.22	0.19	1.29	
Local Check NBt	0.73	1.13	-	0.00	2.90	0.24	1.00	
NH 615	0.87	1.73	-	0.02	2.20	0.20	1.00	
NH 22067 Bt	0.73	2.33	-	0.00	3.15	0.24	1.29	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	0.67	0.00	-	0.00	0.07	0.00	0.15	BETL
PKV 081 Bt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
Suraj Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Local Check NBt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 615	1.00	0.00	-	0.00	0.00	0.00	0.20	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions -Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Local Check NBt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	0.67	0.00	-	0.00	0.00	0.00	0.13	BETL
PKV 081 Bt	0.00	0.00	-	0.00	0.07	0.00	0.01	BETL
Suraj Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Local Check NBt	0.00	0.00	-	0.00	0.13	0.00	0.03	BETL
NH 615	0.67	0.00	-	0.00	0.00	0.00	0.13	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	1.33	0.67	-	1.00	3.00	0.00	1.20	AETL
PKV 081 Bt	0.67	1.33	-	0.00	3.67	0.00	1.13	AETL
Suraj Bt	0.67	1.00	-	0.00	2.00	0.00	0.73	BETL
Local Check NBt	0.67	0.67	-	1.00	3.67	0.00	1.20	AETL
NH 615	1.33	1.00	-	2.00	2.33	0.00	1.33	AETL
NH 22067 Bt	0.33	1.00	-	1.00	1.67	0.00	0.80	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	6.60	1.67	-	0.00	1.07	0.00	1.87	BETL
PKV 081 Bt	0.00	1.67	-	0.00	1.53	0.00	0.64	BETL
Suraj Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL
Local Check NBt	0.00	0.00	-	0.00	1.27	0.00	0.25	BETL
NH 615	7.60	1.67	-	0.00	0.00	0.00	1.85	BETL
NH 22067 Bt	0.00	0.00	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Variety Trial in Central Zone under Unprotected Conditions - Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%) / 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	13.33	6.67	-	10.00	23.33	0.00	10.67	AETL
PKV 081 Bt	6.67	8.33	-	0.00	30.00	0.00	9.00	BETL
Suraj Bt	6.67	10.00	-	0.00	16.67	0.00	6.67	BETL
Local Check NBt	6.67	10.00	-	10.00	30.00	0.00	11.33	AETL
NH 615	13.33	8.33	-	20.00	13.33	0.00	11.00	AETL
NH 22067 Bt	3.33	6.67	-	10.00	6.67	0.00	5.33	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety Trial in Central Zone under Unprotected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	12.24	4.00	-	12.20	12.92	0.00	8.27	
PKV 081 Bt	6.77	4.00	-	0.00	16.36	0.00	5.43	
Suraj Bt	8.41	4.00	-	0.00	9.48	0.00	4.38	
Local Check NBt	5.36	6.00	-	0.00	16.67	0.00	5.61	
NH 615	12.26	4.00	-	2.33	7.43	0.00	5.20	
NH 22067 Bt	5.85	4.00	-	0.00	3.62	0.00	2.69	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety Trial in Central Zone under Unprotected Conditions- Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CPDBt 2454	6.20	2.50	-	5.49	6.66	0.00	4.17	
PKV 081 Bt	3.37	2.50	-	0.00	8.28	0.00	2.83	
Suraj Bt	3.99	2.00	-	0.00	4.62	0.00	2.12	
Local Check NBt	2.41	2.50	-	0.00	8.74	0.00	2.73	
NH 615	6.54	1.50	-	1.16	3.57	0.00	2.55	
NH 22067 Bt	2.63	2.00	-	0.00	1.81	0.00	1.29	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 16 (c) Advanced Evaluation Trial – II of Hirsutum Varieties– Rainfed (AET-II Variety RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions (Normal spacing)															
			Nanded								CICR, Nagpur							
			CLS		BLB		GM		FFS		TSV		BLB		Boll rot		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	53121	CPDBt 2454	0.2	R	0.0	DF	16.0	R	22.1	R	13.8	R	16.6	R	33.3	MR	41.6	MR
6	53122	PKV 081 Bt (ZC Bt-2)	7.8	R	9.5	R	12.8	R	22.1	R	16.6	R	24.9	R	22.2	R	44.4	MR
3	53123	Suraj Bt (ZC Bt-1)	8.3	R	9.5	R	13.3	R	30.4	MR	11.0	R	27.7	MR	24.9	R	47.1	MR
5	53124	Local Check NBt	8.8	R	8.9	R	15.1	R	26.8	MR	13.8	R	22.1	R	33.3	MR	44.3	MR
4	53125	NH 615 (Zonal Check NBt)	7.8	R	0.0	DF	15.0	R	30.4	MR	8.3	R	24.9	R	30.5	MR	38.8	MR
2	53126	NH 22067 Bt	7.0	R	9.8	R	17.2	R	24.8	R	16.6	R	8.3	R	33.3	MR	38.8	MR

Table 16 (d) Advanced Evaluation Trial – II of Hirsutum Varieties– Rainfed (AET-II Variety RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions (Normal spacing)							
			Surat				Bharuch			
			BLB		ALS		BLB		ALS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR
1	53121	CPDBt 2454	9.5	R	0.0	DF	0.0	DF	1.5	R
6	53122	PKV 081 Bt (ZC Bt-2)	13.5	R	0.0	DF	4.0	R	9.5	R
3	53123	Suraj Bt (ZC Bt-1)	0.0	DF	14.5	R	3.5	R	13.5	R
5	53124	Local Check NBt	7.5	R	0.0	DF	5.5	R	5.5	R
4	53125	NH 615 (Zonal Check NBt)	0.0	DF	4.5	R	2.5	R	1.5	R
2	53126	NH 22067 Bt	4.0	R	5.0	R	3.0	R	0.0	DF



Agronomic Evaluation

Bhawanipatna (NH 22067 Bt)

The results of the study revealed that spacing levels had a significant effect on seed cotton yield, with S3 (90 cm × 45 cm) recording the highest yield (1985 kg/ha), followed by S2 (90 cm × 60 cm; 1762 kg/ha), and the lowest yield (1649 kg/ha) under S1 (90 cm × 75 cm). The Nutrient levels also significantly influenced yield, with N3 (125% NPK;) producing the highest yield (1876 kg/ha), followed by N2 (100% NPK; 1800 kg/ha) and N1 (75% NPK; 1721 kg/ha). However, the interaction between spacing and nutrient levels was not significant (Table 23).

Table 23. Seed cotton yield (kg/ha) of NH 22067 Bt as influenced by Spacing levels and Nutrient levels at Bhawanipatna

Treatments	N ₁ : 75 % NPK	N ₂ : 100 % NPK	N ₃ : 125 % NPK	Mean (Spacing)	ANOVA	SE d	CD (5%)
S ₁ - 90 x 75 cm	1608	1629	1711	1649	Nutrient	52	110
S ₂ - 90x 60 cm	1701	1752	1834	1762	Spacing	52	110
S ₃ - 90 x 45 cm	1855	2020	2081	1985	S X N	89	NS
Mean (Nutrient)	1721	1800	1876				

Basic parameters: pH: 6.2, Available N: 132 kg/ha, Available P₂O₅: 38.6 kg/ha, Available K₂O: 248 kg/ha, Recommended nutrients: 150:60:60 kg NPK/ha, Genotype: US 751 BGII, Environment: Rainfed, Total rainfall during cropping period: 1270.9 mm



Initial Evaluation Trial of Compact Hirsutum Varieties - Rainfed

Constitution of Trial

The trial was constituted with 14 Bt cotton varieties containing deregulated event along with two different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	9	53131	NH 22033 Bt	CRS, Nanded
2	13	53132	Suraksha Bt	CICR, Coimbatore
3	15	53133	PDKV Bt-248 (BG II)	Dr. PDKV, Akola
4	1	53134	Subiksha Bt	CICR, Coimbatore
5	4	53135	PKV 081 Bt (ZC Bt-1)	
6	6	53136	CCH 25-1 Bt II	CICR, Coimbatore
7	10	53137	CCH 25-4 Bt II	CICR, Coimbatore
8	14	53138	CICR 25-22 Bt II	ICAR-CICR, Nagpur
9	3	53139	CICR Bt 142	ICAR-CICR, Nagpur
10	12	53140	PDKV Bt-237 (BG II)	Dr. PDKV, Akola
11	7	53141	CICR 25-21 Bt II	ICAR-CICR, Nagpur
12	2	53142	NH 1901 Bt (ZC Bt-2)	
13	8	53143	CCH 25-3 Bt II	CICR, Coimbatore
14	5	53144	NH 22105 Bt	CRS, Nanded
15	11	53145	CICR 25-24 Bt II	ICAR-CICR, Nagpur
16	16	53146	Nano Bt	CICR, Coimbatore

The trial was conducted in five locations viz., NAU, Surat; PDKV, Akola; VNMKV, Nanded; MPUAT, Banswara and ICAR-CICR, Nagpur.

The zonal check variety **PKV 081 Bt (ZC Bt-1)** was not released for the central zone under rainfed conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

Spacing: Recommended spacing for the variety has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	105.2	109.0	100.0	101.7	103.5	103.9
2	Suraksha Bt	108.0	139.0	112.2	114.6	107.1	116.2
3	PDKV Bt-248 (BG II)	121.7	133.7	104.7	101.7	118.5	116.1
4	Subiksha Bt	123.3	146.0	115.5	115.0	114.9	122.9
6	CCH 25-1 Bt II	128.4	153.7	113.2	101.3	111.3	121.6
7	CCH 25-4 Bt II	97.7	114.0	91.0	90.0	92.9	97.1
8	CICR 25-22 Bt II	97.7	112.7	82.7	84.7	94.5	94.5
9	CICR Bt 142	94.0	108.3	94.7	103.7	92.2	98.6
10	PDKV Bt-237 (BG II)	128.0	127.7	100.7	111.1	110.2	115.5
11	CICR 25-21 Bt II	95.0	121.0	94.3	97.8	102.3	102.1
12	NH 1901 Bt (ZC Bt-2)	111.5	133.3	99.3	103.7	120.7	113.7
13	CCH 25-3 Bt II	118.1	137.3	103.5	102.7	97.7	111.9
14	NH 22105 Bt	100.3	132.7	100.1	103.9	109.8	109.4
15	CICR 25-24 Bt II	96.3	117.0	91.3	90.0	97.5	98.4
16	Nano Bt	110.0	125.0	98.0	103.7	104.1	108.2
	CD @ 5%	14.8	15.0	16.3	13.0	15.9	
	CV%	8.1	7.0	9.7	7.6	9.0	

Number of monopodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	0.5	2.2	2.1	0.9	2.1	1.6
2	Suraksha Bt	0.1	3.1	1.5	0.6	0.9	1.2
3	PDKV Bt-248 (BG II)	0.7	1.4	1.6	0.2	0.8	0.9
4	Subiksha Bt	0.0	1.8	1.5	0.3	1.6	1.0
6	CCH 25-1 Bt II	0.0	0.2	0.9	0.3	0.2	0.3
7	CCH 25-4 Bt II	0.0	1.7	0.9	0.1	1.5	0.8
8	CICR 25-22 Bt II	0.1	2.6	1.4	0.5	0.7	1.1
9	CICR Bt 142	0.0	1.4	1.0	0.2	0.4	0.6
10	PDKV Bt-237 (BG II)	0.3	1.8	1.0	0.1	0.9	0.8
11	CICR 25-21 Bt II	0.1	2.2	1.3	0.4	1.3	1.1
12	NH 1901 Bt (ZC Bt-2)	0.0	2.0	1.6	0.5	0.3	0.9
13	CCH 25-3 Bt II	0.0	1.6	1.5	0.2	1.3	0.9
14	NH 22105 Bt	0.1	2.1	1.9	0.9	1.6	1.3
15	CICR 25-24 Bt II	0.0	1.8	1.8	0.4	0.3	0.9
16	Nano Bt	0.1	2.3	2.4	0.9	1.1	1.4
	CD @ 5%	0.1	0.9	0.3	0.5	0.7	
	CV%	37.3	28.2	12.4	18.4	44.3	



Number of sympodia in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	12.3	38.3	19.6	24.6	22.7	23.5
2	Suraksha Bt	10.5	29.0	19.5	22.5	20.9	20.5
3	PDKV Bt-248 (BG II)	14.3	31.3	17.8	21.5	22.9	21.6
4	Subiksha Bt	13.0	25.3	18.7	22.9	21.8	20.3
6	CCH 25-1 Bt II	5.9	24.7	16.5	19.2	20.1	17.3
7	CCH 25-4 Bt II	10.9	22.3	15.2	20.5	19.6	17.7
8	CICR 25-22 Bt II	10.7	28.3	15.4	19.5	20.3	18.8
9	CICR Bt 142	8.3	23.0	15.4	21.5	20.2	17.7
10	PDKV Bt-237 (BG II)	13.1	26.7	15.4	27.3	21.9	20.9
11	CICR 25-21 Bt II	9.2	32.3	16.3	22.5	22.0	20.5
12	NH 1901 Bt (ZC Bt-2)	12.8	31.0	16.9	23.2	23.5	21.5
13	CCH 25-3 Bt II	9.2	29.3	15.5	20.3	18.7	18.6
14	NH 22105 Bt	9.8	32.7	16.3	25.8	23.3	21.6
15	CICR 25-24 Bt II	12.5	33.3	14.3	20.1	21.7	20.4
16	Nano Bt	5.5	28.3	14.0	23.3	21.7	18.6
	CD @ 5%	2.6	6.4	3.4	3.7	NS	
	CV%	15.0	13.2	12.4	9.8	8.5	

Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	4.4	6.5	4.4	4.5	4.1	4.8
2	Suraksha Bt	3.7	3.6	4.4	3.7	4.0	3.9
3	PDKV Bt-248 (BG II)	4.0	3.8	4.5	4.0	4.1	4.1
4	Subiksha Bt	3.0	4.3	3.6	4.0	4.1	3.8
6	CCH 25-1 Bt II	4.7	6.6	4.5	5.1	5.2	5.2
7	CCH 25-4 Bt II	5.0	4.8	4.8	4.4	4.3	4.7
8	CICR 25-22 Bt II	4.2	4.8	4.9	4.3	4.4	4.5
9	CICR Bt 142	4.4	5.3	4.9	4.1	4.0	4.5
10	PDKV Bt-237 (BG II)	5.2	5.6	5.2	4.8	5.1	5.2
11	CICR 25-21 Bt II	4.4	5.5	4.2	3.8	4.4	4.5
12	NH 1901 Bt (ZC Bt-2)	3.1	4.9	2.8	3.5	3.6	3.6
13	CCH 25-3 Bt II	4.4	5.3	4.1	4.2	4.5	4.5
14	NH 22105 Bt	4.3	5.6	3.7	4.1	3.7	4.3
15	CICR 25-24 Bt II	4.3	5.2	3.7	4.1	4.4	4.3
16	Nano Bt	3.2	4.4	3.5	3.6	3.7	3.7
	CD @ 5%	0.4	0.2	0.1	0.7	0.4	
	CV%	6.5	2.1	1.9	9.5	5.7	



Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	5.9	22.3	19.0	15.7	11.3	14.8
2	Suraksha Bt	6.1	19.0	12.9	14.5	7.8	12.1
3	PDKV Bt-248 (BG II)	6.4	20.0	17.5	15.7	10.3	14.0
4	Subiksha Bt	5.2	19.0	11.7	13.7	9.8	11.9
6	CCH 25-1 Bt II	4.7	18.7	13.7	12.1	9.1	11.7
7	CCH 25-4 Bt II	5.2	15.0	12.6	12.4	7.5	10.5
8	CICR 25-22 Bt II	7.1	20.3	16.3	11.8	8.6	12.8
9	CICR Bt 142	5.7	16.3	17.2	10.7	8.5	11.7
10	PDKV Bt-237 (BG II)	5.5	22.7	17.2	14.3	9.9	13.9
11	CICR 25-21 Bt II	6.8	21.3	14.7	10.1	9.7	12.5
12	NH 1901 Bt (ZC Bt-2)	9.5	23.0	17.7	17.7	15.2	16.6
13	CCH 25-3 Bt II	5.6	21.7	15.2	16.7	9.3	13.7
14	NH 22105 Bt	7.4	24.3	16.9	20.0	14.7	16.7
15	CICR 25-24 Bt II	6.9	22.7	14.5	14.7	8.8	13.5
16	Nano Bt	6.3	19.3	10.7	12.9	9.3	11.7
	CD @ 5%	0.9	5.1	4.5	4.9	4.1	
	CV%	8.2	14.9	17.7	19.3	24.6	

Number of bolls / sq. m. in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Nanded	Nagpur	Mean
1	NH 22033 Bt	43.5	244.7	52.1	83.6	106.0
2	Suraksha Bt	45.4	207.0	43.0	58.2	88.4
3	PDKV Bt-248 (BG II)	47.4	234.3	54.9	76.7	103.3
4	Subiksha Bt	38.5	211.3	37.3	73.2	90.1
6	CCH 25-1 Bt II	35.1	204.0	34.2	68.2	85.4
7	CCH 25-4 Bt II	38.5	216.7	39.0	55.8	87.5
8	CICR 25-22 Bt II	52.3	236.7	39.2	64.2	98.1
9	CICR Bt 142	42.0	216.7	33.1	63.2	88.8
10	PDKV Bt-237 (BG II)	40.5	276.0	40.0	73.7	107.6
11	CICR 25-21 Bt II	50.4	255.7	36.1	72.7	103.7
12	NH 1901 Bt (ZC Bt-2)	70.6	309.3	45.3	113.5	134.7
13	CCH 25-3 Bt II	41.5	219.0	43.1	69.7	93.3
14	NH 22105 Bt	54.8	294.3	54.8	109.5	128.4
15	CICR 25-24 Bt II	50.9	292.0	42.9	65.7	112.9
16	Nano Bt	46.9	212.3	30.3	69.7	89.8
	CD @ 5%	6.3	19.3	8.4	30.9	
	CV%	8.2	4.8	11.9	24.7	



Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	3.2	5.8	5.5	5.0	5.3	5.0
2	Suraksha Bt	2.8	4.4	5.5	4.2	4.9	4.4
3	PDKV Bt-248 (BG II)	3.0	4.4	4.5	4.0	4.3	4.0
4	Subiksha Bt	2.7	4.6	5.4	4.2	4.6	4.3
6	CCH 25-1 Bt II	3.2	6.2	6.3	5.0	5.7	5.3
7	CCH 25-4 Bt II	2.9	4.8	5.2	4.0	4.5	4.3
8	CICR 25-22 Bt II	3.0	5.3	4.8	4.8	4.8	4.5
9	CICR Bt 142	3.0	4.9	4.4	4.0	4.2	4.1
10	PDKV Bt-237 (BG II)	3.2	5.2	5.1	5.9	4.9	4.9
11	CICR 25-21 Bt II	2.9	4.1	4.5	5.0	4.3	4.2
12	NH 1901 Bt (ZC Bt-2)	3.0	4.5	4.4	4.0	4.5	4.1
13	CCH 25-3 Bt II	2.7	4.3	4.8	5.0	4.4	4.2
14	NH 22105 Bt	2.8	4.6	5.7	4.1	5.0	4.4
15	CICR 25-24 Bt II	2.9	5.1	3.8	4.0	4.5	4.1
16	Nano Bt	3.0	4.6	4.8	5.0	4.9	4.5
	CD @ 5%	0.2	0.4	0.2	0.2		
	CV%	4.5	4.3	2.3	3.1		

Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	8.5	10.0	9.0	7.7	9.5	8.9
2	Suraksha Bt	8.2	9.1	10.6	9.8	10.2	9.6
3	PDKV Bt-248 (BG II)	8.5	9.1	8.8	8.6	10.0	9.0
4	Subiksha Bt	8.0	10.1	11.2	10.2	9.6	9.8
6	CCH 25-1 Bt II	9.0	12.2	12.6	10.0	12.9	11.3
7	CCH 25-4 Bt II	9.2	11.1	11.4	8.0	10.6	10.1
8	CICR 25-22 Bt II	8.8	9.2	9.5	8.9	10.8	9.4
9	CICR Bt 142	8.8	11.2	9.4	9.1	9.8	9.7
10	PDKV Bt-237 (BG II)	9.3	12.2	11.0	8.4	11.3	10.4
11	CICR 25-21 Bt II	8.8	10.2	10.4	9.0	11.1	9.9
12	NH 1901 Bt (ZC Bt-2)	8.0	8.2	7.4	7.1	9.3	8.0
13	CCH 25-3 Bt II	8.8	10.2	10.0	8.5	11.1	9.7
14	NH 22105 Bt	8.5	10.9	11.1	10.2	10.8	10.3
15	CICR 25-24 Bt II	8.5	12.2	8.8	8.6	10.3	9.7
16	Nano Bt	8.3	9.2	9.5	9.1	10.8	9.4
	CD @ 5%	0.6	0.5	0.3	0.3		
	CV%	4.0	2.6	1.7	2.3		



Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	34.3	36.7	38.1	33.1	35.7	35.6
2	Suraksha Bt	31.6	32.7	34.0	32.9	32.3	32.7
3	PDKV Bt-248 (BG II)	32.1	32.3	33.7	35.6	30.0	32.7
4	Subiksha Bt	30.7	31.3	32.5	32.9	32.3	31.9
6	CCH 25-1 Bt II	32.4	33.7	33.4	32.8	30.7	32.6
7	CCH 25-4 Bt II	28.7	30.3	31.2	30.7	29.7	30.1
8	CICR 25-22 Bt II	30.8	36.3	33.4	32.1	30.7	32.7
9	CICR Bt 142	31.1	30.3	31.8	32.4	30.0	31.1
10	PDKV Bt-237 (BG II)	31.2	30.0	31.8	32.8	30.3	31.2
11	CICR 25-21 Bt II	29.7	28.7	30.4	30.7	27.7	29.4
12	NH 1901 Bt (ZC Bt-2)	34.5	35.3	37.5	37.5	32.7	35.5
13	CCH 25-3 Bt II	28.2	29.7	32.2	33.3	28.3	30.3
14	NH 22105 Bt	30.0	29.7	34.0	31.3	31.7	31.3
15	CICR 25-24 Bt II	31.0	29.3	30.3	35.7	30.3	31.3
16	Nano Bt	32.8	33.0	33.4	34.4	31.3	33.0
	CD @ 5%	1.5	1.1	0.6	1.5		
	CV%	2.9	2.0	1.0	2.7		

Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	29.5	26.1	25.4	25.8	28.2	27.0
2	Suraksha Bt	32.2	29.2	31.8	30.5	31.5	31.0
3	PDKV Bt-248 (BG II)	28.6	25.0	24.9	25.3	27.8	26.3
4	Subiksha Bt	30.4	28.9	30.6	29.0	30.6	29.9
6	CCH 25-1 Bt II	32.3	30.8	31.0	28.3	31.5	30.8
7	CCH 25-4 Bt II	32.7	31.5	31.9	30.3	30.6	31.4
8	CICR 25-22 Bt II	28.4	24.9	26.8	26.5	27.2	26.8
9	CICR Bt 142	29.4	26.2	27.4	27.3	28.0	27.7
10	PDKV Bt-237 (BG II)	31.7	29.3	29.3	30.1	31.4	30.4
11	CICR 25-21 Bt II	30.4	27.2	28.0	28.7	29.2	28.7
12	NH 1901 Bt (ZC Bt-2)	26.2	24.9	25.1	24.2	26.4	25.4
13	CCH 25-3 Bt II	32.9	31.8	31.8	30.6	30.2	31.5
14	NH 22105 Bt	29.4	27.1	28.0	28.0	27.6	28.0
15	CICR 25-24 Bt II	30.7	28.1	28.8	28.5	30.3	29.3
16	Nano Bt	30.8	28.1	28.4	29.5	30.3	29.4



Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	81.0	82.0	84.0	82.0	83.0	82.4
2	Suraksha Bt	84.0	83.0	84.0	84.0	85.0	84.0
3	PDKV Bt-248 (BG II)	84.0	81.0	84.0	83.0	82.0	82.8
4	Subiksha Bt	84.0	83.0	83.0	86.0	84.0	84.0
6	CCH 25-1 Bt II	84.0	85.0	83.0	84.0	86.0	84.4
7	CCH 25-4 Bt II	81.0	80.0	79.0	83.0	83.0	81.2
8	CICR 25-22 Bt II	82.0	81.0	81.0	84.0	84.0	82.4
9	CICR Bt 142	83.0	79.0	82.0	82.0	82.0	81.6
10	PDKV Bt-237 (BG II)	84.0	82.0	82.0	86.0	86.0	84.0
11	CICR 25-21 Bt II	83.0	79.0	81.0	83.0	81.0	81.4
12	NH 1901 Bt (ZC Bt-2)	82.0	81.0	80.0	82.0	82.0	81.4
13	CCH 25-3 Bt II	81.0	81.0	82.0	85.0	87.0	83.2
14	NH 22105 Bt	82.0	80.0	83.0	85.0	83.0	82.6
15	CICR 25-24 Bt II	83.0	80.0	81.0	82.0	85.0	82.2
16	Nano Bt	84.0	83.0	84.0	87.0	85.0	84.6

Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	4.5	4.8	4.8	4.4	4.4	4.6
2	Suraksha Bt	3.9	3.9	4.5	4.2	3.8	4.1
3	PDKV Bt-248 (BG II)	4.1	4.3	4.5	4.2	3.9	4.2
4	Subiksha Bt	4.4	4.7	4.2	4.4	4.4	4.4
6	CCH 25-1 Bt II	4.3	4.5	4.6	4.9	4.0	4.5
7	CCH 25-4 Bt II	3.9	3.5	3.8	4.3	3.5	3.8
8	CICR 25-22 Bt II	4.7	4.9	4.9	5.0	5.3	5.0
9	CICR Bt 142	4.3	3.8	4.0	3.9	3.8	4.0
10	PDKV Bt-237 (BG II)	4.7	4.3	4.8	4.8	5.4	4.8
11	CICR 25-21 Bt II	3.7	3.5	3.6	3.7	5.1	3.9
12	NH 1901 Bt (ZC Bt-2)	4.6	4.7	4.8	4.6	4.8	4.7
13	CCH 25-3 Bt II	3.8	3.6	3.9	3.9	3.7	3.8
14	NH 22105 Bt	4.6	4.8	4.5	4.9	5.5	4.9
15	CICR 25-24 Bt II	4.0	3.6	3.7	3.9	3.5	3.7
16	Nano Bt	3.9	3.9	3.9	3.9	3.7	3.9



Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	NH 22033 Bt	28.7	26.5	25.0	27.0	25.5	26.5
2	Suraksha Bt	31.5	30.5	30.8	30.8	29.7	30.7
3	PDKV Bt-248 (BG II)	30.3	24.5	25.9	26.4	25.3	26.5
4	Subiksha Bt	31.6	31.7	31.5	31.2	30.7	31.3
6	CCH 25-1 Bt II	30.1	30.7	29.8	27.0	30.0	29.5
7	CCH 25-4 Bt II	31.2	31.1	31.3	28.3	29.1	30.2
8	CICR 25-22 Bt II	29.4	26.5	28.1	26.6	28.5	27.8
9	CICR Bt 142	30.2	27.8	26.5	26.8	25.0	27.3
10	PDKV Bt-237 (BG II)	29.8	31.3	28.0	27.7	30.5	29.5
11	CICR 25-21 Bt II	29.9	28.4	27.3	26.7	25.8	27.6
12	NH 1901 Bt (ZC Bt-2)	26.1	24.6	26.6	23.4	24.6	25.1
13	CCH 25-3 Bt II	30.2	30.4	30.3	27.9	29.4	29.6
14	NH 22105 Bt	29.1	27.7	27.6	26.1	28.8	27.9
15	CICR 25-24 Bt II	30.7	28.3	30.4	28.6	29.0	29.4
16	Nano Bt	30.8	30.2	30.2	29.7	29.4	30.1

Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Nanded	Nagpur	Mean
1	NH 22033 Bt	3.55	8.09	6.84	7.32	6.45
2	Suraksha Bt	3.70	7.16	5.47	6.50	5.71
3	PDKV Bt-248 (BG II)	2.06	6.68	9.19	7.30	6.31
4	Subiksha Bt	2.58	6.33	5.60	3.95	4.62
6	CCH 25-1 Bt II	3.84	6.23	6.68	6.35	5.78
7	CCH 25-4 Bt II	6.51	7.21	7.14	2.98	5.96
8	CICR 25-22 Bt II	7.41	10.59	8.29	11.60	9.47
9	CICR Bt 142	10.16	9.28	6.43	7.25	8.28
10	PDKV Bt-237 (BG II)	5.63	16.21	9.43	15.70	11.74
11	CICR 25-21 Bt II	5.87	13.00	7.50	8.06	8.61
12	NH 1901 Bt (ZC Bt-2)	6.69	13.48	9.18	12.36	10.43
13	CCH 25-3 Bt II	3.64	6.86	7.15	6.20	5.96
14	NH 22105 Bt	10.18	10.71	6.09	7.66	8.66
15	CICR 25-24 Bt II	5.52	13.40	10.20	11.32	10.11
16	Nano Bt	2.97	6.43	6.47	7.12	5.75
	CD @ 5%	1.59	1.94	2.10	2.14	
	CV%	17.89	12.75	17.06	15.81	



Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Nanded	Nagpur	Mean
1	NH 22033 Bt	11.43	5.47	5.46	4.85	6.80
2	Suraksha Bt	9.28	4.26	4.40	1.92	4.97
3	PDKV Bt-248 (BG II)	12.78	5.53	7.86	3.11	7.32
4	Subiksha Bt	8.78	4.66	4.25	2.37	5.02
6	CCH 25-1 Bt II	8.44	4.88	6.27	2.64	5.56
7	CCH 25-4 Bt II	8.09	4.91	4.85	2.93	5.20
8	CICR 25-22 Bt II	10.58	5.60	5.23	3.37	6.20
9	CICR Bt 142	4.67	4.91	7.02	3.23	4.96
10	PDKV Bt-237 (BG II)	10.70	8.98	6.57	4.05	7.58
11	CICR 25-21 Bt II	11.92	6.94	4.98	2.69	6.63
12	NH 1901 Bt (ZC Bt-2)	12.25	7.93	6.47	2.46	7.28
13	CCH 25-3 Bt II	10.40	6.09	4.59	3.03	6.03
14	NH 22105 Bt	9.24	6.46	6.37	2.92	6.25
15	CICR 25-24 Bt II	12.61	7.44	8.47	2.65	7.79
16	Nano Bt	8.90	4.46	7.08	3.21	5.91
	CD @ 5%	2.03	1.12	1.33	0.86	
	CV%	12.25	11.42	13.17	16.88	

Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean	Rank	% Inc over best
1	NH 22033 Bt	14.98	13.56	10.66	12.30	12.17	12.73	9	-23.5
2	Suraksha Bt	12.98	11.42	7.05	9.86	8.42	9.95	14	-40.3
3	PDKV Bt-248 (BG II)	14.85	12.21	13.37	17.05	10.41	13.58	7	-18.5
4	Subiksha Bt	11.35	10.99	6.02	9.86	6.32	8.91	15	-46.5
6	CCH 25-1 Bt II	12.28	11.11	6.69	12.96	8.99	10.41	13	-37.5
7	CCH 25-4 Bt II	14.60	12.12	7.72	11.99	5.91	10.47	12	-37.1
8	CICR 25-22 Bt II	17.99	16.19	11.53	13.52	14.97	14.84	4	-10.9
9	CICR Bt 142	14.83	14.20	11.20	13.45	10.47	12.83	8	-22.9
10	PDKV Bt-237 (BG II)	16.32	25.19	14.59	16.00	19.75	18.37	1	10.3
11	CICR 25-21 Bt II	17.79	19.94	9.98	12.81	10.75	14.25	5	-14.4
12	NH 1901 Bt (ZC Bt-2)	18.94	21.41	12.43	15.65	14.82	16.65	3	0.0
13	CCH 25-3 Bt II	14.04	12.95	8.72	11.74	9.23	11.34	10	-31.9
14	NH 22105 Bt	19.42	17.17	10.02	12.46	10.58	13.93	6	-16.3
15	CICR 25-24 Bt II	18.13	20.84	12.72	18.67	13.97	16.87	2	1.3
16	Nano Bt	11.87	10.89	8.24	13.55	10.33	10.98	11	-34.1
	CD @ 5%	2.06	2.25	2.13	2.59	2.45			
	CV%	8.11	8.99	12.46	11.56	13.11			



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pests

Table: Initial Variety(Compact)Trial in Central Zone under Protected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
NH 22033 Bt	4.27	-	-	6.35	0.62	0.00	2.81	BETL
Suraksha Bt	6.28	-	-	7.85	3.44	0.00	4.39	BETL
PDKV Bt-248 (BG II)	5.27	-	-	5.87	2.67	0.00	3.45	BETL
Subiksha Bt	8.06	-	-	6.28	4.20	0.00	4.63	BETL
PKV 081 Bt (ZC Bt-1)	5.06	-	-	5.87	3.96	0.00	3.72	BETL
CCH 25-1 Bt II	5.89	-	-	4.86	3.11	0.00	3.47	BETL
CCH 25-4 Bt II	6.35	-	-	4.61	1.76	0.00	3.18	BETL
CICR 25-22 Bt II	4.23	-	-	6.04	2.96	0.00	3.31	BETL
CICR Bt 142	4.40	-	-	4.74	3.16	0.00	3.07	BETL
PDKV Bt-237 (BG II)	4.08	-	-	5.90	1.44	0.00	2.86	BETL
CICR 25-21 Bt II	2.21	-	-	7.97	3.31	0.00	3.37	BETL
NH 1901 Bt (ZC Bt-2)	8.81	-	-	8.07	2.93	0.00	4.95	BETL
CCH 25-3 Bt II	4.42	-	-	5.61	3.84	0.00	3.47	BETL
NH 22105 Bt	4.43	-	-	6.21	3.04	0.00	3.42	BETL
CICR 25-24 Bt II	3.55	-	-	6.38	1.38	0.00	2.83	BETL
Nano Bt	3.50	-	-	6.52	1.33	0.00	2.84	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions - Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	1.74	-	1.93	1.18	1.42	6.89	2.63	BETL
Suraksha Bt	2.28	-	1.56	1.34	1.09	8.37	2.93	BETL
PDKV Bt-248 (BG II)	1.64	-	1.24	1.14	1.53	7.78	2.67	BETL
Subiksha Bt	2.94	-	1.51	2.15	1.20	9.56	3.47	BETL
PKV 081 Bt (ZC Bt-1)	1.58	-	1.49	1.51	1.18	8.78	2.91	BETL
CCH 25-1 Bt II	3.12	-	2.13	1.36	1.02	9.33	3.39	BETL
CCH 25-4 Bt II	2.91	-	1.47	1.70	0.84	8.33	3.05	BETL
CICR 25-22 Bt II	1.51	-	1.60	1.42	1.20	6.33	2.41	BETL
CICR Bt 142	2.30	-	1.73	1.60	1.51	6.56	2.74	BETL
PDKV Bt-237 (BG II)	1.99	-	0.96	1.08	1.22	4.33	1.92	BETL
CICR 25-21 Bt II	0.92	-	1.04	0.88	1.13	5.56	1.91	BETL
NH 1901 Bt (ZC Bt-2)	4.07	-	1.60	0.95	1.04	4.89	2.51	BETL
CCH 25-3 Bt II	2.54	-	1.44	1.79	1.31	7.44	2.91	BETL
NH 22105 Bt	2.48	-	1.47	1.73	1.18	5.67	2.51	BETL
CICR 25-24 Bt II	1.35	-	1.09	1.09	0.67	5.11	1.86	BETL
Nano Bt	1.21	-	1.64	1.29	0.71	9.78	2.93	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	I	-	II	I	I	III	II	
Suraksha Bt	I	-	II	I	I	III	II	
PDKV Bt-248 (BG II)	I	-	I	I	I	III	I	
Subiksha Bt	I	-	II	I	I	IV	II	
PKV 081 Bt (ZC Bt-1)	I	-	II	I	I	III	II	
CCH 25-1 Bt II	I	-	II	I	I	III	II	
CCH 25-4 Bt II	I	-	II	I	I	III	II	
CICR 25-22 Bt II	I	-	II	I	I	II	I	
CICR Bt 142	I	-	II	I	I	III	II	
PDKV Bt-237 (BG II)	I	-	I	I	I	II	I	
CICR 25-21 Bt II	I	-	I	I	I	II	I	
NH 1901 Bt (ZC Bt-2)	I	-	II	I	I	II	I	
CCH 25-3 Bt II	I	-	II	I	I	III	II	
NH 22105 Bt	I	-	II	I	I	II	I	
CICR 25-24 Bt II	I	-	II	I	I	II	I	
Nano Bt	I	-	I	I	I	IV	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions - Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	9.26	-	1.62	0.93	6.51	0.00	3.66	BETL
Suraksha Bt	11.45	-	1.53	0.94	4.62	0.00	3.71	BETL
PDKV Bt-248 (BG II)	10.81	-	1.58	1.19	2.56	0.00	3.23	BETL
Subiksha Bt	15.58	-	1.71	0.90	4.16	0.00	4.47	BETL
PKV 081 Bt (ZC Bt-1)	9.45	-	1.40	0.93	3.76	0.00	3.11	BETL
CCH 25-1 Bt II	12.83	-	1.29	1.45	2.82	0.00	3.68	BETL
CCH 25-4 Bt II	17.34	-	1.44	2.22	2.51	0.00	4.70	BETL
CICR 25-22 Bt II	11.83	-	1.62	1.46	3.53	0.00	3.69	BETL
CICR Bt 142	14.75	-	2.11	0.99	2.24	0.00	4.02	BETL
PDKV Bt-237 (BG II)	20.90	-	1.04	0.71	3.40	0.00	5.21	BETL
CICR 25-21 Bt II	9.11	-	1.22	1.55	3.13	0.00	3.00	BETL
NH 1901 Bt (ZC Bt-2)	15.56	-	1.38	1.46	2.31	0.00	4.14	BETL
CCH 25-3 Bt II	13.19	-	1.33	0.74	3.76	0.00	3.80	BETL
NH 22105 Bt	13.31	-	1.71	1.16	2.87	0.00	3.81	BETL
CICR 25-24 Bt II	8.23	-	1.89	2.14	2.60	0.00	2.97	BETL
Nano Bt	8.52	-	1.59	1.67	2.78	0.00	2.91	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.80	-	3.02	1.15	0.20	4.11	1.86	BETL
Suraksha Bt	1.13	-	3.18	1.14	0.16	5.11	2.14	BETL
PDKV Bt-248 (BG II)	0.65	-	2.96	0.96	0.16	4.56	1.86	BETL
Subiksha Bt	1.77	-	3.18	1.32	0.27	5.44	2.40	BETL
PKV 081 Bt (ZC Bt-1)	0.60	-	2.49	1.28	0.13	5.22	1.95	BETL
CCH 25-1 Bt II	1.42	-	2.78	0.93	0.24	5.56	2.19	BETL
CCH 25-4 Bt II	1.55	-	2.87	1.09	0.16	4.67	2.07	BETL
CICR 25-22 Bt II	0.53	-	2.64	1.22	0.24	3.22	1.57	BETL
CICR Bt 142	0.96	-	3.07	1.24	0.13	3.78	1.83	BETL
PDKV Bt-237 (BG II)	0.98	-	2.36	1.05	0.16	1.33	1.18	BETL
CICR 25-21 Bt II	0.25	-	3.76	0.95	0.18	2.67	1.56	BETL
NH 1901 Bt (ZC Bt-2)	1.73	-	3.42	1.15	0.13	1.67	1.62	BETL
CCH 25-3 Bt II	1.35	-	3.60	1.21	0.18	4.22	2.11	BETL
NH 22105 Bt	1.32	-	2.93	1.33	0.20	2.67	1.69	BETL
CICR 25-24 Bt II	0.74	-	2.82	0.96	0.13	2.00	1.33	BETL
Nano Bt	0.80	-	3.04	1.34	0.16	6.11	2.29	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions -Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
NH 22033 Bt	0.38	-	-	0.09	1.30	0.17	0.48	
Suraksha Bt	0.50	-	-	0.01	1.10	0.17	0.44	
PDKV Bt-248 (BG II)	0.52	-	-	0.03	1.25	0.14	0.49	
Subiksha Bt	0.39	-	-	0.02	0.89	0.14	0.36	
PKV 081 Bt (ZC Bt-1)	0.46	-	-	0.00	0.83	0.18	0.37	
CCH 25-1 Bt II	0.48	-	-	0.05	0.80	0.16	0.37	
CCH 25-4 Bt II	0.42	-	-	0.04	0.63	0.17	0.31	
CICR 25-22 Bt II	0.42	-	-	0.04	0.62	0.16	0.31	
CICR Bt 142	0.63	-	-	0.03	0.94	0.20	0.45	
PDKV Bt-237 (BG II)	0.44	-	-	0.04	0.93	0.18	0.40	
CICR 25-21 Bt II	0.66	-	-	0.05	1.08	0.20	0.50	
NH 1901 Bt (ZC Bt-2)	0.55	-	-	0.03	0.87	0.17	0.40	
CCH 25-3 Bt II	0.49	-	-	0.10	0.97	0.18	0.43	
NH 22105 Bt	0.55	-	-	0.04	0.67	0.18	0.36	
CICR 25-24 Bt II	0.46	-	-	0.08	1.23	0.20	0.49	
Nano Bt	0.53	-	-	0.09	0.95	0.19	0.44	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions - *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Subiksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22105 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Nano Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Subiksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22105 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Nano Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Subiksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22105 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Nano Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions -Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.27	-	1.62	0.00	1.00	0.00	0.58	BETL
Suraksha Bt	0.57	-	1.11	0.00	0.56	0.00	0.45	BETL
PDKV Bt-248 (BG II)	0.45	-	1.80	0.00	0.67	0.00	0.58	BETL
Subiksha Bt	0.85	-	1.57	0.00	0.89	0.00	0.66	BETL
PKV 081 Bt (ZC Bt-1)	0.38	-	0.66	0.00	0.56	0.00	0.32	BETL
CCH 25-1 Bt II	0.65	-	1.92	0.00	0.78	0.00	0.67	BETL
CCH 25-4 Bt II	0.65	-	2.37	0.00	0.56	0.00	0.72	BETL
CICR 25-22 Bt II	0.45	-	2.83	0.00	0.89	0.00	0.84	BETL
CICR Bt 142	0.57	-	3.23	0.00	0.44	0.00	0.85	BETL
PDKV Bt-237 (BG II)	0.57	-	0.63	0.00	0.56	0.00	0.35	BETL
CICR 25-21 Bt II	0.27	-	1.66	0.00	0.67	0.00	0.52	BETL
NH 1901 Bt (ZC Bt-2)	0.91	-	1.58	0.00	0.44	0.00	0.59	BETL
CCH 25-3 Bt II	0.45	-	2.13	0.00	1.11	0.00	0.74	BETL
NH 22105 Bt	0.69	-	2.11	0.00	1.00	0.00	0.76	BETL
CICR 25-24 Bt II	0.45	-	1.18	0.00	0.78	0.00	0.48	BETL
Nano Bt	0.38	-	1.61	0.00	0.44	0.00	0.49	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions -Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Subiksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22105 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Nano Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions - Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	2.03	-	17.78	0.00	7.78	0.00	5.52	BETL
Suraksha Bt	4.35	-	12.22	0.00	4.44	0.00	4.20	BETL
PDKV Bt-248 (BG II)	2.50	-	20.00	0.00	4.44	0.00	5.39	BETL
Subiksha Bt	9.32	-	16.67	0.00	7.78	0.00	6.75	BETL
PKV 081 Bt (ZC Bt-1)	2.50	-	6.67	0.00	4.44	0.00	2.72	BETL
CCH 25-1 Bt II	6.69	-	20.00	0.00	6.67	0.00	6.67	BETL
CCH 25-4 Bt II	6.69	-	24.44	0.00	4.44	0.00	7.12	BETL
CICR 25-22 Bt II	2.50	-	30.00	0.00	6.67	0.00	7.83	BETL
CICR Bt 142	4.35	-	33.33	0.00	4.44	0.00	8.43	BETL
PDKV Bt-237 (BG II)	3.73	-	6.67	0.00	4.44	0.00	2.97	BETL
CICR 25-21 Bt II	1.15	-	16.67	0.00	5.56	0.00	4.67	BETL
NH 1901 Bt (ZC Bt-2)	10.26	-	16.67	0.00	4.44	0.00	6.27	BETL
CCH 25-3 Bt II	3.73	-	22.22	0.00	7.78	0.00	6.75	BETL
NH 22105 Bt	7.73	-	22.22	0.00	7.78	0.00	7.55	BETL
CICR 25-24 Bt II	2.50	-	12.22	0.00	6.67	0.00	4.28	BETL
Nano Bt	2.50	-	17.78	0.00	4.44	0.00	4.94	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Protected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	5.17	-	21.81	9.47	4.93	0.00	8.28	
Suraksha Bt	8.30	-	15.20	19.54	2.71	0.00	9.15	
PDKV Bt-248 (BG II)	3.86	-	23.51	8.00	2.83	0.00	7.64	
Subiksha Bt	8.58	-	19.33	11.94	4.76	0.00	8.92	
PKV 081 Bt (ZC Bt-1)	5.19	-	7.07	12.79	2.76	0.00	5.56	
CCH 25-1 Bt II	8.08	-	22.57	10.13	4.14	0.00	8.98	
CCH 25-4 Bt II	8.58	-	26.28	18.46	2.76	0.00	11.21	
CICR 25-22 Bt II	5.03	-	33.24	0.00	4.10	0.00	8.47	
CICR Bt 142	7.06	-	35.00	3.33	2.76	0.00	9.63	
PDKV Bt-237 (BG II)	8.40	-	8.92	4.96	2.77	0.00	5.01	
CICR 25-21 Bt II	2.37	-	18.30	10.53	3.67	0.00	6.97	
NH 1901 Bt (ZC Bt-2)	12.88	-	15.24	3.21	2.87	0.00	6.84	
CCH 25-3 Bt II	7.08	-	24.50	3.77	4.92	0.00	8.06	
NH 22105 Bt	8.97	-	21.08	6.56	5.12	0.00	8.35	
CICR 25-24 Bt II	3.86	-	11.81	2.36	4.03	0.00	4.41	
Nano Bt	5.24	-	18.77	15.46	2.79	0.00	8.45	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions - Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	2.85	-	7.97	4.47	2.08	0.00	3.48	
Suraksha Bt	4.05	-	4.20	6.32	1.15	0.00	3.14	
PDKV Bt-248 (BG II)	2.06	-	7.35	3.50	1.20	0.00	2.82	
Subiksha Bt	4.70	-	6.62	5.22	2.12	0.00	3.73	
PKV 081 Bt (ZC Bt-1)	2.88	-	2.36	3.78	1.12	0.00	2.03	
CCH 25-1 Bt II	3.95	-	7.85	3.48	1.71	0.00	3.40	
CCH 25-4 Bt II	3.99	-	9.08	5.77	1.12	0.00	3.99	
CICR 25-22 Bt II	2.58	-	11.26	0.00	1.64	0.00	3.10	
CICR Bt 142	3.45	-	12.93	1.04	1.14	0.00	3.71	
PDKV Bt-237 (BG II)	4.33	-	2.48	2.30	1.15	0.00	2.05	
CICR 25-21 Bt II	1.03	-	6.76	3.95	1.53	0.00	2.65	
NH 1901 Bt (ZC Bt-2)	6.30	-	5.49	1.12	1.26	0.00	2.83	
CCH 25-3 Bt II	3.41	-	8.37	1.65	2.04	0.00	3.09	
NH 22105 Bt	4.40	-	7.37	3.01	2.36	0.00	3.43	
CICR 25-24 Bt II	2.19	-	4.03	1.18	1.65	0.00	1.81	
Nano Bt	3.08	-	6.84	6.44	1.16	0.00	3.50	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety (Compact) Trial in Central Zone under Protected Conditions -No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
NH 22033 Bt	5.00	-	5.00	-	3.00	4.00	4.25	
Suraksha Bt	5.00	-	5.00	-	3.00	4.00	4.25	
PDKV Bt-248 (BG II)	5.00	-	5.00	-	3.00	4.00	4.25	
Subiksha Bt	5.00	-	5.00	-	3.00	4.00	4.25	
PKV 081 Bt (ZC Bt-1)	5.00	-	5.00	-	3.00	4.00	4.25	
CCH 25-1 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
CCH 25-4 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
CICR 25-22 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
CICR Bt 142	5.00	-	5.00	-	3.00	4.00	4.25	
PDKV Bt-237 (BG II)	5.00	-	5.00	-	3.00	4.00	4.25	
CICR 25-21 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
NH 1901 Bt (ZC Bt-2)	5.00	-	5.00	-	3.00	4.00	4.25	
CCH 25-3 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
NH 22105 Bt	5.00	-	5.00	-	3.00	4.00	4.25	
CICR 25-24 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
Nano Bt	5.00	-	5.00	-	3.00	4.00	4.25	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 17(a): Initial Evaluation Trial of Compact Hirsutum Varieties-Rainfed (IET variety Compact RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions															
			CICR, Nagpur										Nanded					
			FFS		TSV		BLB		Boll rot		GM		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
9	53131	NH 22033 Bt	13.8	R	8.3	R	37.7	MR	44.9	MR	22.4	R	6.7	R	4.0	R	6.3	R
13	53132	Suraksha Bt	21.8	R	25.0	R	30.3	MR	15.3	R	23.6	R	7.2	R	3.9	R	5.1	R
15	53133	PDKV Bt-248 (BG II)	38.0	MR	11.1	R	30.3	MR	19.3	R	32.4	MR	6.2	R	5.4	R	5.5	R
1	53134	Subiksha Bt	19.1	R	22.2	R	19.4	R	22.2	R	34.7	MR	5.7	R	3.7	R	6.6	R
4	53135	PKV 081 Bt (ZC Bt-1)	19.4	R	5.5	R	16.7	R	21.8	R	32.8	MR	3.9	R	4.9	R	7.2	R
6	53136	CCH 25-1 Bt II	28.3	MR	7.4	R	21.7	R	35.5	MR	22.2	R	6.9	R	5.3	R	6.7	R
10	53137	CCH 25-4 Bt II	31.8	MR	13.8	R	20.3	R	21.7	R	26.7	MR	8.3	R	4.3	R	6.8	R
14	53138	CICR 25-22 Bt II	18.0	R	5.5	R	1.9	R	31.3	MR	26.7	MR	7.2	R	4.9	R	7.3	R
3	53139	CICR Bt 142	11.6	R	8.3	R	1.9	R	15.0	R	33.6	MR	6.7	R	2.9	R	6.6	R
12	53140	PDKV Bt-237 (BG II)	26.1	MR	24.9	R	9.1	R	11.1	R	35.3	MR	4.7	R	4.9	R	6.6	R
7	53141	CICR 25-21 Bt II	9.7	R	5.5	R	8.3	R	10.8	R	22.7	R	5.5	R	5.8	R	6.4	R
2	53142	NH 1901 Bt (ZC Bt-2)	7.0	R	8.3	R	2.8	R	7.3	R	36.1	MR	4.3	R	5.8	R	7.2	R
8	53143	CCH 25-3 Bt II	11.3	R	13.8	R	9.9	R	7.8	R	35.3	MR	3.7	R	4.6	R	6.7	R
5	53144	NH 22105 Bt	7.9	R	11.9	R	14.1	R	11.7	R	24.7	R	8.3	R	2.4	R	7.2	R
11	53145	CICR 25-24 Bt II	10.7	R	0.0	DF	13.8	R	10.8	R	28.3	MR	6.9	R	3.2	R	7.4	R
16	53146	Nano Bt	13.0	R	2.8	R	2.2	R	32.8	MR	32.8	MR	4.5	R	5.0	R	6.1	R



Table 17 (b): Initial Evaluation Trial of Compact Hirsutum Varieties-Rainfed (IET variety Compact RF) under protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions									
			Surat				PDKV, Akola					
			BLB		ALS		BLB		GM		MLS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
9	53131	NH 22033 Bt	19.2	R	4.2	R	31.3	MR	20.0	R	25.0	R
13	53132	Suraksha Bt	33.2	MR	0.0	DF	25.0	R	16.3	R	26.3	MR
15	53133	PDKV Bt-248 (BG II)	16.2	R	0.0	DF	17.5	R	23.8	R	31.3	MR
1	53134	Subiksha Bt	5.5	R	0.0	DF	16.3	R	10.0	R	25.0	R
4	53135	PKV 081 Bt (ZC Bt-1)	11.3	R	0.0	DF	6.3	R	3.8	R	22.5	R
6	53136	CCH 25-1 Bt II	0.0	DF	0.0	DF	7.5	R	15.0	R	23.8	R
10	53137	CCH 25-4 Bt II	9.8	R	0.0	DF	25.0	R	8.8	R	21.3	R
14	53138	CICR 25-22 Bt II	0.0	DF	0.0	DF	6.3	R	16.3	R	26.3	MR
3	53139	CICR Bt 142	0.0	DF	11.2	R	10.0	R	33.8	MR	22.5	R
12	53140	PDKV Bt-237 (BG II)	0.0	DF	0.0	DF	8.8	R	30.0	MR	27.5	MR
7	53141	CICR 25-21 Bt II	33.5	MR	0.0	DF	6.3	R	21.3	R	23.8	R
2	53142	NH 1901 Bt (ZC Bt-2)	7.5	R	0.0	DF	3.8	R	17.5	R	25.0	R
8	53143	CCH 25-3 Bt II	15.2	R	0.0	DF	21.3	R	23.8	R	23.8	R
5	53144	NH 22105 Bt	6.8	R	0.0	DF	5.0	R	15.0	R	26.3	MR
11	53145	CICR 25-24 Bt II	8.3	R	0.0	DF	6.3	R	27.5	MR	28.8	MR
16	53146	Nano Bt	5.8	R	6.5	R	15.0	R	5.0	R	16.3	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions -Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	7.47	-	-	3.64	2.33	0.00	3.36	BETL
Suraksha Bt	7.80	-	-	2.93	10.53	0.00	5.32	BETL
PDKV Bt-248 (BG II)	6.07	-	-	3.38	8.20	0.00	4.41	BETL
Subiksha Bt	12.27	-	-	3.47	12.04	0.00	6.94	BETL
PKV 081 Bt (ZC Bt-1)	6.67	-	-	4.58	11.60	0.00	5.71	BETL
CCH 25-1 Bt II	11.33	-	-	5.16	10.73	0.00	6.81	BETL
CCH 25-4 Bt II	10.40	-	-	4.47	6.00	0.00	5.22	BETL
CICR 25-22 Bt II	6.33	-	-	4.80	9.67	0.00	5.20	BETL
CICR Bt 142	6.47	-	-	4.24	10.80	0.00	5.38	BETL
PDKV Bt-237 (BG II)	6.67	-	-	3.96	4.40	0.00	3.76	BETL
CICR 25-21 Bt II	3.67	-	-	4.56	9.33	0.00	4.39	BETL
NH 1901 Bt (ZC Bt-2)	12.80	-	-	4.49	9.27	0.00	6.64	BETL
CCH 25-3 Bt II	9.00	-	-	4.29	13.33	0.00	6.66	BETL
NH 22105 Bt	10.60	-	-	3.89	9.47	0.00	5.99	BETL
CICR 25-24 Bt II	5.67	-	-	4.18	4.60	0.00	3.61	BETL
Nano Bt	7.27	-	-	3.87	4.60	0.00	3.93	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	2.13	-	-	1.13	4.27	7.78	3.83	BETL
Suraksha Bt	2.93	-	-	1.18	3.33	9.11	4.14	BETL
PDKV Bt-248 (BG II)	2.07	-	-	0.98	4.67	8.67	4.09	BETL
Subiksha Bt	4.07	-	-	0.93	3.47	10.33	4.70	BETL
PKV 081 Bt (ZC Bt-1)	2.00	-	-	1.13	3.40	9.56	4.02	BETL
CCH 25-1 Bt II	4.27	-	-	1.16	3.53	9.89	4.71	BETL
CCH 25-4 Bt II	3.93	-	-	1.11	3.00	8.78	4.21	BETL
CICR 25-22 Bt II	2.00	-	-	1.42	3.87	6.89	3.54	BETL
CICR Bt 142	3.27	-	-	1.42	5.07	7.33	4.27	BETL
PDKV Bt-237 (BG II)	2.93	-	-	1.42	3.60	5.33	3.32	BETL
CICR 25-21 Bt II	1.33	-	-	1.42	3.20	6.22	3.04	BETL
NH 1901 Bt (ZC Bt-2)	5.27	-	-	1.69	3.33	5.56	3.96	BETL
CCH 25-3 Bt II	3.73	-	-	1.38	4.53	7.89	4.38	BETL
NH 22105 Bt	3.47	-	-	1.47	3.67	6.56	3.79	BETL
CICR 25-24 Bt II	1.80	-	-	1.33	2.20	5.89	2.81	BETL
Nano Bt	1.67	-	-	1.38	2.33	10.56	3.98	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	I	-	-	I	III	III	II	
Suraksha Bt	I	-	-	I	II	III	II	
PDKV Bt-248 (BG II)	I	-	-	I	III	III	II	
Subiksha Bt	I	-	-	I	II	IV	II	
PKV 081 Bt (ZC Bt-1)	I	-	-	I	II	IV	II	
CCH 25-1 Bt II	I	-	-	I	II	IV	II	
CCH 25-4 Bt II	I	-	-	I	II	III	II	
CICR 25-22 Bt II	I	-	-	I	II	III	II	
CICR Bt 142	I	-	-	I	III	III	II	
PDKV Bt-237 (BG II)	I	-	-	I	II	II	I	
CICR 25-21 Bt II	I	-	-	I	II	III	II	
NH 1901 Bt (ZC Bt-2)	I	-	-	I	II	II	II	
CCH 25-3 Bt II	I	-	-	I	III	III	II	
NH 22105 Bt	I	-	-	I	II	III	II	
CICR 25-24 Bt II	I	-	-	I	II	II	I	
Nano Bt	I	-	-	I	II	IV	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



**Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions –
Thrips**

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	15.40	-	-	0.33	18.93	0.00	8.67	BETL
Suraksha Bt	21.47	-	-	0.16	14.00	0.00	8.91	BETL
PDKV Bt-248 (BG II)	17.07	-	-	0.09	7.87	0.00	6.26	BETL
Subiksha Bt	22.73	-	-	0.18	11.73	0.00	8.66	BETL
PKV 081 Bt (ZC Bt-1)	17.40	-	-	0.44	10.93	0.00	7.19	BETL
CCH 25-1 Bt II	24.13	-	-	0.36	9.60	0.00	8.52	BETL
CCH 25-4 Bt II	22.93	-	-	0.27	8.67	0.00	7.97	BETL
CICR 25-22 Bt II	16.67	-	-	0.44	11.33	0.00	7.11	BETL
CICR Bt 142	18.33	-	-	0.16	7.67	0.00	6.54	BETL
PDKV Bt-237 (BG II)	24.47	-	-	0.58	9.67	0.00	8.68	BETL
CICR 25-21 Bt II	13.53	-	-	0.38	8.93	0.00	5.71	BETL
NH 1901 Bt (ZC Bt-2)	22.87	-	-	0.36	7.20	0.00	7.61	BETL
CCH 25-3 Bt II	21.40	-	-	0.47	13.20	0.00	8.77	BETL
NH 22105 Bt	21.93	-	-	0.53	8.93	0.00	7.85	BETL
CICR 25-24 Bt II	11.33	-	-	0.49	8.13	0.00	4.99	BETL
Nano Bt	10.93	-	-	0.87	8.93	0.00	5.18	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions –
Whitefly**

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	1.13	-	-	0.36	0.60	4.56	1.66	BETL
Suraksha Bt	1.27	-	-	0.53	0.47	5.67	1.98	BETL
PDKV Bt-248 (BG II)	1.20	-	-	0.67	0.47	5.11	1.86	BETL
Subiksha Bt	2.53	-	-	0.44	0.67	6.22	2.47	BETL
PKV 081 Bt (ZC Bt-1)	1.00	-	-	0.53	0.40	5.89	1.96	BETL
CCH 25-1 Bt II	1.67	-	-	0.93	0.73	6.22	2.39	BETL
CCH 25-4 Bt II	2.27	-	-	1.02	0.53	5.33	2.29	BETL
CICR 25-22 Bt II	1.40	-	-	1.11	0.80	4.00	1.83	BETL
CICR Bt 142	1.40	-	-	0.62	0.47	4.33	1.71	BETL
PDKV Bt-237 (BG II)	1.33	-	-	0.69	0.40	2.00	1.11	BETL
CICR 25-21 Bt II	0.73	-	-	0.64	0.47	3.22	1.27	BETL
NH 1901 Bt (ZC Bt-2)	2.00	-	-	0.82	0.33	2.44	1.40	BETL
CCH 25-3 Bt II	2.00	-	-	0.64	0.53	4.67	1.96	BETL
NH 22105 Bt	1.80	-	-	0.36	0.60	3.44	1.55	BETL
CICR 25-24 Bt II	1.33	-	-	0.73	0.47	2.56	1.27	BETL
Nano Bt	1.27	-	-	0.53	0.47	6.67	2.23	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



**Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions –
Natural Enemies**

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.40	-	-	0.02	3.76	0.20	1.09	
Suraksha Bt	0.53	-	-	0.00	3.42	0.21	1.04	
PDKV Bt-248 (BG II)	0.60	-	-	0.04	3.91	0.23	1.20	
Subiksha Bt	0.47	-	-	0.04	2.62	0.18	0.83	
PKV 081 Bt (ZC Bt-1)	0.73	-	-	0.29	2.49	0.22	0.93	
CCH 25-1 Bt II	0.60	-	-	0.18	2.78	0.20	0.94	
CCH 25-4 Bt II	0.60	-	-	0.04	2.16	0.20	0.75	
CICR 25-22 Bt II	0.53	-	-	0.07	2.02	0.21	0.71	
CICR Bt 142	0.67	-	-	0.04	3.20	0.23	1.04	
PDKV Bt-237 (BG II)	0.60	-	-	0.11	2.73	0.23	0.92	
CICR 25-21 Bt II	0.67	-	-	0.02	3.09	0.23	1.00	
NH 1901 Bt (ZC Bt-2)	0.73	-	-	0.02	2.78	0.20	0.93	
CCH 25-3 Bt II	0.67	-	-	0.02	3.53	0.21	1.11	
NH 22105 Bt	0.73	-	-	0.02	2.18	0.21	0.79	
CICR 25-24 Bt II	0.53	-	-	0.09	3.87	0.24	1.18	
Nano Bt	0.53	-	-	0.02	3.13	0.22	0.98	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions –
*Helicoverpa armigera***

Name of Entry	<i>Helicoverpa armigera</i> (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.27	0.00	0.07	BETL
Suraksha Bt	0.00	-	-	0.00	0.27	0.00	0.07	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.07	0.00	0.02	BETL
Subiksha Bt	0.00	-	-	0.00	0.20	0.00	0.05	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.07	0.00	0.02	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.13	0.00	0.03	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.20	0.00	0.05	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.13	0.00	0.03	BETL
CICR Bt 142	0.00	-	-	0.00	0.07	0.00	0.02	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.13	0.00	0.03	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.20	0.00	0.05	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.07	0.00	0.02	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.20	0.00	0.05	BETL
NH 22105 Bt	0.00	-	-	0.00	0.27	0.00	0.07	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.13	0.00	0.03	BETL
Nano Bt	0.00	-	-	0.00	0.07	0.00	0.02	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Subiksha Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22105 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Nano Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	0.13	0.00	0.03	BETL
Suraksha Bt	0.00	-	-	0.00	0.07	0.00	0.02	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Subiksha Bt	0.00	-	-	0.00	0.13	0.00	0.03	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	0.13	0.00	0.03	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CICR Bt 142	0.00	-	-	0.00	0.13	0.00	0.03	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	0.07	0.00	0.02	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	0.07	0.00	0.02	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	0.00	0.00	0.00	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22105 Bt	0.00	-	-	0.00	0.13	0.00	0.03	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Nano Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions -Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.67	-	-	0.00	5.33	0.00	1.50	AETL
Suraksha Bt	0.67	-	-	1.00	2.67	0.00	1.08	AETL
PDKV Bt-248 (BG II)	0.67	-	-	0.00	3.00	0.00	0.92	BETL
Subiksha Bt	1.33	-	-	0.00	4.00	0.00	1.33	AETL
PKV 081 Bt (ZC Bt-1)	0.33	-	-	2.00	2.33	0.00	1.17	AETL
CCH 25-1 Bt II	0.67	-	-	0.00	4.33	0.00	1.25	AETL
CCH 25-4 Bt II	0.67	-	-	0.00	3.00	0.00	0.92	BETL
CICR 25-22 Bt II	0.33	-	-	2.00	5.00	0.00	1.83	AETL
CICR Bt 142	0.67	-	-	2.00	3.00	0.00	1.42	AETL
PDKV Bt-237 (BG II)	0.67	-	-	0.00	3.33	0.00	1.00	AETL
CICR 25-21 Bt II	0.33	-	-	2.00	3.67	0.00	1.50	AETL
NH 1901 Bt (ZC Bt-2)	1.00	-	-	2.00	2.67	0.00	1.42	AETL
CCH 25-3 Bt II	0.33	-	-	0.00	5.33	0.00	1.42	AETL
NH 22105 Bt	0.67	-	-	0.00	4.67	0.00	1.33	AETL
CICR 25-24 Bt II	0.33	-	-	2.00	4.33	0.00	1.67	AETL
Nano Bt	0.67	-	-	2.00	2.67	0.00	1.33	AETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	0.00	-	-	0.00	1.73	0.00	0.43	BETL
Suraksha Bt	0.00	-	-	0.00	1.70	0.00	0.43	BETL
PDKV Bt-248 (BG II)	0.00	-	-	0.00	1.20	0.00	0.30	BETL
Subiksha Bt	0.00	-	-	0.00	1.67	0.00	0.42	BETL
PKV 081 Bt (ZC Bt-1)	0.00	-	-	0.00	0.90	0.00	0.23	BETL
CCH 25-1 Bt II	0.00	-	-	0.00	1.90	0.00	0.48	BETL
CCH 25-4 Bt II	0.00	-	-	0.00	1.50	0.00	0.38	BETL
CICR 25-22 Bt II	0.00	-	-	0.00	1.60	0.00	0.40	BETL
CICR Bt 142	0.00	-	-	0.00	1.47	0.00	0.37	BETL
PDKV Bt-237 (BG II)	0.00	-	-	0.00	1.63	0.00	0.41	BETL
CICR 25-21 Bt II	0.00	-	-	0.00	1.80	0.00	0.45	BETL
NH 1901 Bt (ZC Bt-2)	0.00	-	-	0.00	1.40	0.00	0.35	BETL
CCH 25-3 Bt II	0.00	-	-	0.00	1.70	0.00	0.43	BETL
NH 22105 Bt	0.00	-	-	0.00	2.13	0.00	0.53	BETL
CICR 25-24 Bt II	0.00	-	-	0.00	1.60	0.00	0.40	BETL
Nano Bt	0.00	-	-	0.00	1.07	0.00	0.27	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	6.67	-	-	0.00	30.00	0.00	9.17	BETL
Suraksha Bt	6.67	-	-	10.00	33.33	0.00	12.50	AETL
PDKV Bt-248 (BG II)	6.67	-	-	0.00	23.33	0.00	7.50	BETL
Subiksha Bt	13.33	-	-	0.00	33.33	0.00	11.67	AETL
PKV 081 Bt (ZC Bt-1)	3.33	-	-	10.00	16.67	0.00	7.50	BETL
CCH 25-1 Bt II	6.67	-	-	0.00	34.44	0.00	10.28	AETL
CCH 25-4 Bt II	6.67	-	-	0.00	23.33	0.00	7.50	BETL
CICR 25-22 Bt II	3.33	-	-	10.00	33.33	0.00	11.67	AETL
CICR Bt 142	6.67	-	-	10.00	26.67	0.00	10.83	AETL
PDKV Bt-237 (BG II)	6.67	-	-	0.00	33.33	0.00	10.00	AETL
CICR 25-21 Bt II	3.33	-	-	10.00	30.00	0.00	10.83	AETL
NH 1901 Bt (ZC Bt-2)	13.33	-	-	10.00	23.33	0.00	11.67	AETL
CCH 25-3 Bt II	10.00	-	-	0.00	33.33	0.00	10.83	AETL
NH 22105 Bt	10.00	-	-	0.00	40.00	0.00	12.50	AETL
CICR 25-24 Bt II	3.33	-	-	20.00	33.33	0.00	14.17	AETL
Nano Bt	6.67	-	-	10.00	23.33	0.00	10.00	AETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	6.34	-	-	10.34	20.47	0.00	9.29	
Suraksha Bt	8.05	-	-	46.15	22.31	0.00	19.13	
PDKV Bt-248 (BG II)	4.32	-	-	37.14	16.34	0.00	14.45	
Subiksha Bt	9.1	-	-	27.27	22.53	0.00	14.73	
PKV 081 Bt (ZC Bt-1)	5.69	-	-	20.41	12.36	0.00	9.61	
CCH 25-1 Bt II	8.89	-	-	34.48	23.79	0.00	16.79	
CCH 25-4 Bt II	9.31	-	-	42.86	15.96	0.00	17.03	
CICR 25-22 Bt II	6.35	-	-	14.89	22.47	0.00	10.93	
CICR Bt 142	7.15	-	-	0.00	18.14	0.00	6.32	
PDKV Bt-237 (BG II)	8.69	-	-	0.00	22.11	0.00	7.70	
CICR 25-21 Bt II	4.01	-	-	20.93	20.40	0.00	11.34	
NH 1901 Bt (ZC Bt-2)	13.21	-	-	0.00	15.40	0.00	7.15	
CCH 25-3 Bt II	7.33	-	-	33.33	23.28	0.00	15.99	
NH 22105 Bt	9.15	-	-	25.00	26.82	0.00	15.24	
CICR 25-24 Bt II	4.06	-	-	21.21	22.80	0.00	12.02	
Nano Bt	6.22	-	-	21.21	16.73	0.00	11.04	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Initial Variety(Compact) Trial in Central Zone under Unprotected Conditions -Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
NH 22033 Bt	3.25	-	-	4.31	8.06	0.00	3.91	
Suraksha Bt	4.00	-	-	17.31	8.65	0.00	7.49	
PDKV Bt-248 (BG II)	2.12	-	-	15.00	6.02	0.00	5.79	
Subiksha Bt	4.69	-	-	15.91	9.22	0.00	7.45	
PKV 081 Bt (ZC Bt-1)	2.54	-	-	7.14	4.53	0.00	3.55	
CCH 25-1 Bt II	4.55	-	-	12.93	9.19	0.00	6.67	
CCH 25-4 Bt II	4.51	-	-	19.64	5.96	0.00	7.53	
CICR 25-22 Bt II	3.06	-	-	6.38	8.62	0.00	4.52	
CICR Bt 142	3.74	-	-	0.00	7.15	0.00	2.72	
PDKV Bt-237 (BG II)	4.43	-	-	0.00	8.69	0.00	3.28	
CICR 25-21 Bt II	2.06	-	-	8.72	8.42	0.00	4.80	
NH 1901 Bt (ZC Bt-2)	7.39	-	-	0.00	6.04	0.00	3.36	
CCH 25-3 Bt II	3.45	-	-	15.63	9.39	0.00	7.12	
NH 22105 Bt	4.87	-	-	8.65	10.95	0.00	6.12	
CICR 25-24 Bt II	2.25	-	-	12.12	8.90	0.00	5.82	
Nano Bt	3.61	-	-	10.61	6.49	0.00	5.18	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 17 (c): Initial Evaluation Trial of Compact Hirsutum Varieties- Rainfed (IET variety Compact RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): unprotected conditions																					
			CICR, Nagpur										Nanded								Surat			
			FFS		TSV		BLB		Boll rot		GM		CLS		BLB		GM		TSV		BLB		ALS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
9	53131	NH 22033 Bt	21.3	R	16.6	R	44.4	MR	52.7	MS	30.5	MR	8.9	R	9.6	R	11.6	R	0.0	R	0.0	DF	0.0	DF
13	53132	Suraksha Bt	29.7	MR	33.3	MR	38.8	MR	19.3	R	33.3	MR	11.2	R	9.9	R	9.9	R	0.0	R	15.5	R	0.0	DF
15	53133	PDKV Bt-248 (BG II)	45.2	MR	22.1	R	33.3	MR	27.8	MR	40.2	MR	7.6	R	8.8	R	12.2	R	0.0	R	0.0	DF	3.5	R
1	53134	Subiksha Bt	24.9	R	30.4	MR	27.7	MR	27.8	MR	46.3	MR	9.7	R	6.4	R	12.9	R	4.0	R	0.0	DF	0.0	DF
4	53135	PKV 081 Bt (ZC Bt-1)	27.7	MR	16.6	R	27.7	MR	33.3	MR	38.8	MR	8.2	R	6.9	R	15.4	R	3.8	R	0.0	DF	4.5	R
6	53136	CCH 25-1 Bt II	37.2	MR	16.6	R	29.7	MR	41.6	MR	30.5	MR	9.0	R	10.0	R	10.8	R	0.0	R	0.0	DF	0.0	DF
10	53137	CCH 25-4 Bt II	33.3	MR	16.6	R	27.7	MR	36.0	MR	33.3	MR	11.3	R	5.5	R	12.9	R	3.7	R	0.0	DF	0.0	DF
14	53138	CICR 25-22 Bt II	22.1	R	18.5	R	11.0	R	38.8	MR	30.5	MR	10.9	R	8.6	R	14.8	R	0.0	R	0.0	DF	0.0	DF
3	53139	CICR Bt 142	18.5	R	19.3	R	13.8	R	22.2	R	38.8	MR	11.0	R	6.1	R	12.1	R	0.0	R	5.0	R	0.0	DF
12	53140	PDKV Bt-237 (BG II)	35.2	MR	33.3	MR	19.3	R	19.3	R	41.6	MR	7.6	R	9.7	R	12.4	R	0.0	R	0.0	DF	0.0	DF
7	53141	CICR 25-21 Bt II	18.5	R	16.6	R	22.2	R	19.3	R	30.5	MR	9.1	R	9.0	R	10.3	R	0.0	R	0.0	DF	3.5	R
2	53142	NH 1901 Bt (ZC Bt-2)	13.8	R	38.8	MR	13.8	R	18.5	R	44.3	MR	8.4	R	10.1	R	11.8	R	0.0	R	5.5	R	0.0	DF
8	53143	CCH 25-3 Bt II	18.5	R	27.7	MR	19.3	R	15.2	R	44.3	MR	6.4	R	7.7	R	13.1	R	0.0	R	0.0	DF	0.0	DF
5	53144	NH 22105 Bt	18.5	R	19.3	R	19.4	R	18.6	R	30.5	MR	11.3	R	5.7	R	13.9	R	0.0	R	0.0	DF	3.5	R
11	53145	CICR 25-24 Bt II	16.6	R	13.8	R	22.1	R	19.3	R	38.8	MR	9.8	R	5.8	R	14.2	R	0.0	R	5.0	R	4.5	R
16	53146	Nano Bt	30.4	MR	13.8	R	8.3	R	41.6	MR	40.8	MR	10.7	R	11.2	R	12.9	R	6.0	R	5.5	R	5.5	R



Advanced Evaluation Trial of Compact Hirsutum Varieties - Rainfed

Constitution of Trial

The trial was constituted with two Bt cotton varieties containing deregulated event along with four different check varieties as furnished below.

S. No.	Code-I	Code-II	Entries	Sponsored by
1	5	53151	CICR 24-13 Bt II	CICR, Nagpur
2	2	53152	NH 1901 Bt (ZC Bt-3)	
3	6	53153	Suraj Bt (ZC Bt-1)	
4	3	53154	NH 615 (ZC Non-Bt)	
5	1	53155	NH 22003 Bt	CRS, Nanded
6	4	53156	PKV 081 Bt (ZC Bt-2)	

The trial was conducted in five locations viz., NAU, Surat; PDKV, Akola; VNMKV, Nanded; MPUAT, Banswara and ICAR-CICR, Nagpur.

The zonal check variety **PKV 081 Bt (ZC Bt-1)** was not released for the central zone under rainfed conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

Spacing: Recommended spacing for the variety has been followed.

Number of rows: 4 rows of 6 meters per entry with three replications

Data recorded:

Biometric evaluation

Plant height (cm) at harvest in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	114.5	126.3	135.1	116.5	129.4	124.4
2	NH 1901 Bt (ZC Bt-2)	114.0	138.8	131.3	123.7	144.8	130.5
3	Suraj Bt (ZC Bt-1)	96.8	107.8	95.4	107.5	114.1	104.3
4	NH 615 (ZC Non-Bt)	99.3	116.3	98.8	103.0	113.7	106.2
5	NH 22003 Bt	113.3	123.8	118.8	110.5	128.2	118.9
	CD @ 5%	10.0	14.3	17.4	9.6	18.9	
	CV%	6.1	6.6	9.8	5.5	8.1	



Number of monopodia in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	0.0	1.3	1.3	0.2	0.5	0.7
2	NH 1901 Bt (ZC Bt-2)	0.1	1.3	1.8	0.2	0.3	0.7
3	Suraj Bt (ZC Bt-1)	0.1	2.3	2.5	0.5	1.9	1.5
4	NH 615 (ZC Non-Bt)	0.5	2.3	2.5	0.4	1.1	1.4
5	NH 22003 Bt	0.1	1.3	1.6	0.3	1.3	0.9
	CD @ 5%	0.1	0.9	0.4	0.4	0.4	
	CV%	28.8	30.7	12.3	19.0	20.7	

Number of sympodia in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	12.9	29.0	23.5	22.4	24.6	22.5
2	NH 1901 Bt (ZC Bt-2)	13.1	32.8	21.9	22.6	28.5	23.8
3	Suraj Bt (ZC Bt-1)	12.2	36.8	21.9	21.5	25.9	23.7
4	NH 615 (ZC Non-Bt)	19.1	36.0	19.1	19.1	23.8	23.4
5	NH 22003 Bt	12.4	35.3	20.9	21.1	24.0	22.7
	CD @ 5%	2.1	5.7	2.1	3.9	2.5	
	CV%	10.2	9.7	6.6	11.9	5.6	

Boll weight (g) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	4.6	3.1	5.5	4.2	4.7	4.4
2	NH 1901 Bt (ZC Bt-2)	3.3	2.2	4.2	3.6	3.0	3.3
3	Suraj Bt (ZC Bt-1)	3.3	3.3	4.2	3.1	2.9	3.4
4	NH 615 (ZC Non-Bt)	3.7	2.3	4.0	3.6	2.4	3.2
5	NH 22003 Bt	4.3	2.9	4.5	4.2	3.9	4.0
	CD @ 5%	0.6	0.2	0.6	0.4	0.3	
	CV%	10.1	3.7	9.6	7.8	5.2	

Number of bolls / plant in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	8.1	17.5	18.1	14.6	14.0	14.5
2	NH 1901 Bt (ZC Bt-2)	12.5	26.0	23.7	20.4	15.1	19.5
3	Suraj Bt (ZC Bt-1)	13.9	20.8	19.5	20.4	12.6	17.4
4	NH 615 (ZC Non-Bt)	11.5	24.3	24.1	21.4	14.1	19.1
5	NH 22003 Bt	11.0	22.3	25.5	20.1	13.5	18.5
	CD @ 5%	1.4	5.1	2.8	3.5	2.1	
	CV%	8.3	13.1	8.3	11.7	8.7	



Number of bolls / sq. m. in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	59.6	208.8	147.9	103.6	130.0
2	NH 1901 Bt (ZC Bt-2)	92.6	325.0	173.1	113.0	175.9
3	Suraj Bt (ZC Bt-1)	102.6	261.3	155.3	94.1	153.3
4	NH 615 (ZC Non-Bt)	84.8	300.5	136.8	105.5	156.9
5	NH 22003 Bt	81.1	289.3	144.8	100.6	154.0
	CD @ 5%	10.6	17.5	15.0	14.8	
	CV%	8.3	3.6	6.4	8.2	

Lint Index (g) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	2.9	4.8	4.8	4.1	6.1	4.5
2	NH 1901 Bt (ZC Bt-2)	3.0	4.5	5.0	4.0	5.0	4.3
3	Suraj Bt (ZC Bt-1)	3.5	6.9	4.8	3.8	4.9	4.8
4	NH 615 (ZC Non-Bt)	3.3	4.5	4.4	4.7	5.2	4.4
5	NH 22003 Bt	3.2	5.0	4.9	4.9	5.4	4.7
	CD @ 5%	0.2	0.4	0.1	0.4		
	CV%	3.2	5.2	1.5	5.9		

Seed Index (g) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	9.0	11.3	10.4	8.1	10.8	9.9
2	NH 1901 Bt (ZC Bt-2)	8.0	8.2	8.7	8.1	9.9	8.6
3	Suraj Bt (ZC Bt-1)	8.3	11.8	7.7	8.6	8.7	9.0
4	NH 615 (ZC Non-Bt)	8.4	8.1	7.7	8.0	9.0	8.2
5	NH 22003 Bt	8.9	10.0	10.3	8.3	10.1	9.5
	CD @ 5%	0.3	0.5	0.2	0.4		
	CV%	2.2	3.0	1.3	3.2		

Ginning outturn (%) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	29.3	30.0	31.8	32.3	36.0	31.9
2	NH 1901 Bt (ZC Bt-2)	34.8	35.8	36.7	37.3	33.7	35.7
3	Suraj Bt (ZC Bt-1)	38.6	37.0	38.8	37.9	36.0	37.7
4	NH 615 (ZC Non-Bt)	36.5	36.0	36.6	38.4	36.3	36.8
5	NH 22003 Bt	33.4	33.5	32.2	36.4	34.7	34.0
	CD @ 5%	1.2	1.3	0.1	1.3		
	CV%	2.3	2.3	0.2	2.5		



Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	31.1	29.4	29.7	28.2	30.8	29.8
2	NH 1901 Bt (ZC Bt-2)	25.9	25.3	25.5	23.8	27.4	25.6
3	Suraj Bt (ZC Bt-1)	28.2	26.3	26.4	26.3	28.8	27.2
4	NH 615 (ZC Non-Bt)	29.5	28.4	29.7	28.2	27.3	28.6
5	NH 22003 Bt	27.6	26.6	28.3	26.1	27.8	27.3

Uniformity index under HVI Mode in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	85.0	84.0	84.0	86.0	85.0	84.8
2	NH 1901 Bt (ZC Bt-2)	81.0	81.0	81.0	83.0	82.0	81.6
3	Suraj Bt (ZC Bt-1)	83.0	81.0	80.0	80.0	82.0	81.2
4	NH 615 (ZC Non-Bt)	82.0	83.0	81.0	83.0	83.0	82.4
5	NH 22003 Bt	82.0	82.0	84.0	81.0	82.0	82.2

Micronaire under HVI Mode in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	5.1	5.1	5.1	5.0	5.2	5.1
2	NH 1901 Bt (ZC Bt-2)	4.6	4.7	4.6	4.6	4.8	4.7
3	Suraj Bt (ZC Bt-1)	4.6	4.7	4.4	4.5	4.7	4.6
4	NH 615 (ZC Non-Bt)	4.4	4.5	4.5	4.8	4.7	4.6
5	NH 22003 Bt	4.9	5.3	5.0	5.1	5.7	5.2

Tenacity under HVI Mode in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	30.0	31.9	30.6	30.9	30.6	30.8
2	NH 1901 Bt (ZC Bt-2)	26.2	26.6	25.6	24.0	24.1	25.3
3	Suraj Bt (ZC Bt-1)	27.3	26.4	25.7	25.7	24.8	26.0
4	NH 615 (ZC Non-Bt)	29.0	30.7	29.5	27.6	28.1	29.0
5	NH 22003 Bt	27.1	28.1	27.0	25.5	26.2	26.8



Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	2.90	8.52	4.98	10.34	6.69
2	NH 1901 Bt (ZC Bt-2)	10.12	12.70	7.49	9.20	9.88
3	Suraj Bt (ZC Bt-1)	14.53	8.80	6.62	7.51	9.37
4	NH 615 (ZC Non-Bt)	14.84	8.10	7.39	8.08	9.60
5	NH 22003 Bt	12.12	9.33	8.44	10.13	10.01
	CD @ 5%	1.99	1.44	1.45	1.50	
	CV%	12.58	9.45	13.95	9.57	

Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Nanded	Nagpur	Mean
1	CICR 24-13 Bt II	18.63	4.12	5.59	5.67	8.50
2	NH 1901 Bt (ZC Bt-2)	15.61	7.51	5.65	4.50	8.32
3	Suraj Bt (ZC Bt-1)	13.42	7.28	4.46	4.02	7.30
4	NH 615 (ZC Non-Bt)	9.87	7.47	5.32	7.15	7.45
5	NH 22003 Bt	15.39	6.62	6.99	4.85	8.46
	CD @ 5%	3.09	1.02	1.44	1.22	
	CV%	14.37	8.28	17.19	13.23	

Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of Hirsutum Variety

S. No.	Entries	Surat	Banswara	Akola	Nanded	Nagpur	Mean	Rank	% Inc over best
1	CICR 24-13 Bt II	21.53	12.64	19.84	10.57	16.01	16.12	5	-13.3
2	NH 1901 Bt (ZC Bt-2)	25.73	20.21	20.21	13.14	13.70	18.60	1	0.0
3	Suraj Bt (ZC Bt-1)	27.95	16.08	17.11	11.08	11.53	16.75	4	-9.9
4	NH 615 (ZC Non-Bt)	24.71	15.57	15.70	12.71	15.23	16.78	3	-9.8
5	NH 22003 Bt	27.51	15.94	16.97	14.98	14.98	18.08	2	-2.8
	CD @ 5%	4.47	1.39	3.12	2.39	1.96			
	CV%	11.97	5.04	11.79	12.39	7.88			



Evaluation under Protected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced Variety(Compact) Trial in Central Zone under Protected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CICR 24-13 Bt II	4.80	-	-	6.62	2.00	0.00	3.36	BETL
NH 1901 Bt	3.70	-	-	9.77	1.28	0.00	3.69	BETL
Suraj Bt	4.46	-	-	8.91	1.17	0.00	3.63	BETL
NH 615	4.55	-	-	7.89	1.35	0.00	3.45	BETL
NH 22003 Bt	5.07	-	-	8.69	3.08	0.00	4.21	BETL
PKV 081 Bt	2.32	-	-	8.66	1.33	0.00	3.08	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	2.33	-	0.70	0.85	1.25	9.00	2.83	BETL
NH 1901 Bt	2.21	-	1.42	0.70	0.65	5.33	2.06	BETL
Suraj Bt	2.14	-	1.12	0.92	1.12	6.33	2.33	BETL
NH 615	3.52	-	0.82	0.63	0.77	7.89	2.72	BETL
NH 22003 Bt	1.99	-	1.07	0.87	0.75	7.11	2.36	BETL
PKV 081 Bt	1.10	-	1.02	0.70	1.08	8.22	2.42	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	I	-	I	I	I	III	I	
NH 1901 Bt	I	-	II	I	I	II	I	
Suraj Bt	I	-	II	I	I	III	II	
NH 615	I	-	I	0	I	III	I	
NH 22003 Bt	I	-	II	0	I	III	I	
PKV 081 Bt	I	-	II	I	I	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	9.46	-	0.37	0.70	3.28	0.00	2.76	BETL
NH 1901 Bt	11.76	-	0.73	1.16	2.43	0.00	3.22	BETL
Suraj Bt	7.77	-	0.75	0.52	3.32	0.00	2.47	BETL
NH 615	15.33	-	0.68	0.57	2.52	0.00	3.82	BETL
NH 22003 Bt	8.59	-	0.53	0.50	2.80	0.00	2.48	BETL
PKV 081 Bt	5.35	-	0.62	0.39	3.70	0.00	2.01	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	1.84	-	1.78	0.95	0.13	5.11	1.96	BETL
NH 1901 Bt	1.81	-	2.27	0.75	0.15	2.11	1.42	BETL
Suraj Bt	2.04	-	2.23	1.09	0.17	2.81	1.67	BETL
NH 615	2.69	-	2.20	0.91	0.12	4.67	2.12	BETL
NH 22003 Bt	1.72	-	2.40	0.87	0.10	3.33	1.68	BETL
PKV 081 Bt	1.29	-	2.48	1.01	0.13	4.89	1.96	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions - Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.41	-	-	0.10	1.48	0.16	0.54	
NH 1901 Bt	0.49	-	-	0.01	1.22	0.17	0.47	
Suraj Bt	0.33	-	-	0.03	0.87	0.19	0.35	
NH 615	0.46	-	-	0.03	0.95	0.17	0.40	
NH 22003 Bt	0.50	-	-	0.00	1.77	0.22	0.62	
PKV 081 Bt	0.44	-	-	0.03	1.42	0.20	0.52	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions –*Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.49	-	-	0.00	0.00	0.00	0.12	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions-Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plant)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.42	-	-	0.00	0.00	0.00	0.11	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions - Pink Bollworm

Name of Entry	Pink Bollworm Larva (No./ 10 bolls Destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.27	-	1.15	0.00	0.50	0.00	0.38	BETL
NH 1901 Bt	0.33	-	2.51	0.34	0.58	0.00	0.75	BETL
Suraj Bt	0.35	-	3.29	1.01	0.25	0.00	0.98	BETL
NH 615	0.71	-	2.19	0.67	0.33	0.00	0.78	BETL
NH 22003 Bt	0.41	-	1.05	0.67	0.25	0.00	0.48	BETL
PKV 081 Bt	0.20	-	2.63	0.34	0.25	0.00	0.68	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions - Green Boll Damage due to ABW/SBW/TC

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK*	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	2.49	-	-	0.00	0.00	0.00	0.62	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions - Green Boll Damage (Pink Bollworm)

Name of Entry	Green Boll Damage (%)/ 10 bolls destructive sampling							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	2.56	-	11.67	3.33	5.00	0.00	4.51	BETL
NH 1901 Bt	3.36	-	25.83	3.33	5.83	0.00	7.67	BETL
Suraj Bt	3.48	-	33.33	3.33	2.50	0.00	8.53	BETL
NH 615	6.69	-	22.50	3.33	4.17	0.00	7.34	BETL
NH 22003 Bt	3.29	-	10.83	13.33	2.50	0.00	5.99	BETL
PKV 081 Bt	1.14	-	26.67	3.33	2.50	0.00	6.73	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions - Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	6.59	-	12.48	11.11	6.03	0.00	7.24	
NH 1901 Bt	7.38	-	27.55	12.14	6.79	0.00	10.77	
Suraj Bt	4.68	-	32.39	16.67	2.85	0.00	11.32	
NH 615	8.65	-	21.66	12.32	4.66	0.00	9.46	
NH 22003 Bt	5.54	-	11.10	12.36	2.89	0.00	6.38	
PKV 081 Bt	2.79	-	28.73	15.89	2.92	0.00	10.07	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions- Locule Damage

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	3.23	-	4.55	3.94	2.87	0.00	2.92	
NH 1901 Bt	3.71	-	8.47	3.57	3.34	0.00	3.82	
Suraj Bt	2.01	-	10.94	5.70	1.36	0.00	4.00	
NH 615	3.88	-	7.54	4.35	2.21	0.00	3.60	
NH 22003 Bt	2.70	-	3.52	4.49	1.37	0.00	2.42	
PKV 081 Bt	1.42	-	10.95	6.07	1.37	0.00	3.96	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Protected Conditions- No. of Sprays for Insect-Pests

Name of Entry	Number of sprays for Insect-pests							Remark
	SU	BH	AK	NG*	NA	BA	Mean	
CICR 24-13 Bt II	5.00	-	5.00	-	3.00	4.00	4.25	
NH 1901 Bt	5.00	-	5.00	-	3.00	4.00	4.25	
Suraj Bt	5.00	-	5.00	-	3.00	4.00	4.25	
NH 615	5.00	-	5.00	-	3.00	4.00	4.25	
NH 22003 Bt	5.00	-	5.00	-	3.00	4.00	4.25	
PKV 081 Bt	5.00	-	5.00	-	3.00	4.00	4.25	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara,* Data not given



Reaction to Diseases

Table 18 (a): Advanced Evaluation Trial-I of Compact Hirsutum Varieties- Rainfed (AET-I variety Compact RF) under protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions													
			CICR, Nagpur										Surat			
			BLB		FFS		TSV		GM		Boll rot		BLB		ALS	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
5	53151	CICR 24-13 Bt II	14.5	R	8.5	R	5.5	R	32.8	MR	36.9	MR	0.0	DF	0.0	DF
2	53152	NH 1901 Bt (ZC Bt-3)	9.4	R	0.0	DF	0.0	DF	38.8	MR	47.2	MR	2.8	R	0.0	DF
6	53153	Suraj Bt (ZC Bt-1)	12.8	R	2.2	R	0.0	DF	30.0	MR	33.6	MR	17.3	R	0.0	DF
3	53154	NH 615 (ZC Non-Bt)	17.7	R	13.8	R	0.0	DF	33.6	MR	34.4	MR	15.1	R	0.0	DF
1	53155	NH 22003 Bt	26.7	MR	0.0	DF	0.0	DF	35.3	MR	36.1	MR	15.3	R	0.0	DF
4	53156	PKV 081 Bt (ZC Bt-2)	23.6	R	11.1	R	0.0	DF	36.5	MR	34.4	MR	4.3	R	1.8	R

Table 18 (b): Advanced Evaluation Trial-I of Compact Hirsutum Varieties – Rainfed (AET-I variety Compact RF) under Protected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Protected conditions											
			PDKV, Akola						Nanded					
			BLB		GM		MLS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
5	53151	CICR 24-13 Bt II	6.3	R	21.3	R	21.3	R	7.1	R	7.4	R	10.0	R
2	53152	NH 1901 Bt (ZC Bt-3)	3.8	R	22.5	R	22.5	R	3.7	R	4.8	R	8.8	R
6	53153	Suraj Bt (ZC Bt-1)	7.5	R	25.0	R	31.3	MR	5.3	R	5.7	R	6.9	R
3	53154	NH 615 (ZC Non-Bt)	5.0	R	30.0	MR	23.8	R	7.3	R	4.6	R	6.8	R
1	53155	NH 22003 Bt	10.0	R	20.0	R	20.0	R	4.1	R	5.5	R	6.5	R
4	53156	PKV 081 Bt (ZC Bt-2)	11.3	R	15.0	R	18.8	R	3.5	R	7.3	R	6.5	R



Evaluation under Unprotected Condition for Insect pests

Reaction to Insect Pests

Table: Advanced Variety(Compact) Trial in Central Zone under Unprotected Conditions – Aphid

Name of Entry	Aphid (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	6.67	-	-	4.40	6.07	0.00	4.28	BETL
NH 1901 Bt	4.73	-	-	6.80	4.33	0.00	3.97	BETL
Suraj Bt	6.07	-	-	6.43	4.00	0.00	4.13	BETL
NH 615	5.47	-	-	5.73	4.20	0.00	3.85	BETL
NH 22003 Bt	6.27	-	-	5.93	10.00	0.00	5.55	BETL
PKV 081 Bt	3.33	-	-	6.50	4.80	0.00	3.66	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – Leafhopper

Name of Entry	Leafhopper (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	2.67	-	-	1.16	3.87	10.00	4.42	BETL
NH 1901 Bt	2.60	-	-	1.42	2.00	6.33	3.09	BETL
Suraj Bt	2.47	-	-	1.27	3.53	7.33	3.65	BETL
NH 615	4.73	-	-	1.93	2.47	8.56	4.42	BETL
NH 22003 Bt	2.13	-	-	1.09	2.47	8.00	3.42	BETL
PKV 081 Bt	1.40	-	-	1.18	3.53	9.11	3.81	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – JIG

Name of Entry	JIG/plant							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	I	-	-	I	II	IV	II	
NH 1901 Bt	I	-	-	I	I	III	II	
Suraj Bt	I	-	-	I	II	III	II	
NH 615	I	-	-	I	II	III	II	
NH 22003 Bt	I	-	-	I	II	III	II	
PKV 081 Bt	I	-	-	0	II	III	II	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – Thrips

Name of Entry	Thrips (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	12.07	-	-	0.33	10.53	0.00	5.73	BETL
NH 1901 Bt	18.00	-	-	0.31	7.73	0.00	6.51	BETL
Suraj Bt	11.73	-	-	0.33	10.33	0.00	5.60	BETL
NH 615	21.80	-	-	0.58	7.80	0.00	7.54	BETL
NH 22003 Bt	11.67	-	-	0.36	8.87	0.00	5.22	BETL
PKV 081 Bt	8.27	-	-	0.22	12.20	0.00	5.17	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – Whitefly

Name of Entry	Whitefly (Average of 3 leaves/plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	2.73	-	-	0.38	0.47	5.89	2.37	BETL
NH 1901 Bt	2.33	-	-	0.47	0.47	2.89	1.54	BETL
Suraj Bt	2.40	-	-	0.58	0.53	3.67	1.79	BETL
NH 615	3.87	-	-	0.42	0.40	5.11	2.45	BETL
NH 22003 Bt	1.93	-	-	0.60	0.33	4.33	1.80	BETL
PKV 081 Bt	1.67	-	-	0.47	0.47	5.56	2.04	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – Natural Enemies

Name of Entry	Natural Enemies (No./plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.60	-	-	0.04	3.20	0.21	1.01	
NH 1901 Bt	0.67	-	-	0.00	2.62	0.21	0.87	
Suraj Bt	0.53	-	-	0.02	1.80	0.23	0.65	
NH 615	0.60	-	-	0.07	1.98	0.22	0.72	
NH 22003 Bt	0.80	-	-	0.11	4.05	0.28	1.31	
PKV 081 Bt	0.60	-	-	0.02	3.07	0.23	0.98	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – *Helicoverpa armigera*

Name of Entry	<i>Helicoverpa armigera</i> (No./5plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.27	0.00	0.07	BETL
NH 1901 Bt	0.00	-	-	0.00	0.20	0.00	0.05	BETL
Suraj Bt	0.00	-	-	0.00	0.07	0.00	0.02	BETL
NH 615	1.00	-	-	0.00	0.13	0.00	0.28	BETL
NH 22003 Bt	0.00	-	-	0.00	0.07	0.00	0.02	BETL
PKV 081 Bt	0.00	-	-	0.00	0.07	0.00	0.02	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions-Spotted/Spiny Bollworms

Name of Entry	Spotted Bollworms (No./5plant)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 1901 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – *Spodoptera litura*

Name of Entry	<i>Spodoptera litura</i> (No./5plants)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	0.07	0.00	0.02	BETL
NH 1901 Bt	0.00	-	-	0.00	0.13	0.00	0.03	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	1.33	-	-	0.00	0.13	0.00	0.37	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



**Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions –
Pink Bollworm**

Name of Entry	Pink Bollworm Larva (No./ 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.67	-	-	1.00	2.67	0.00	1.08	AETL
NH 1901 Bt	0.33	-	-	0.00	3.33	0.00	0.92	BETL
Suraj Bt	0.67	-	-	0.00	1.33	0.00	0.50	BETL
NH 615	1.67	-	-	1.00	2.33	0.00	1.25	AETL
NH 22003 Bt	0.67	-	-	0.00	1.33	0.00	0.50	BETL
PKV 081 Bt	0.33	-	-	0.00	1.67	0.00	0.50	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions –
Green Boll Damage due to ABW/SBW/TC**

Name of Entry	Green Boll Damage (%) due to ABW/SBW/TC							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	0.00	-	-	0.00	1.80	0.00	0.45	BETL
NH 1901 Bt	0.00	-	-	0.00	1.90	0.00	0.48	BETL
Suraj Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
NH 615	7.24	-	-	0.00	1.50	0.00	2.19	BETL
NH 22003 Bt	0.00	-	-	0.00	0.00	0.00	0.00	BETL
PKV 081 Bt	0.00	-	-	0.00	0.90	0.00	0.22	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions –
Green Boll Damage (Pink Bollworm)**

Name of Entry	Green Boll Damage (%) / 10 bolls destructive Sampling)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	6.67	-	-	10.00	33.33	0.00	12.50	BETL
NH 1901 Bt	10.00	-	-	0.00	37.50	0.00	11.88	AETL
Suraj Bt	6.67	-	-	0.00	16.67	0.00	5.83	BETL
NH 615	20.00	-	-	10.00	26.67	0.00	14.17	AETL
NH 22003 Bt	6.67	-	-	0.00	16.67	0.00	5.83	BETL
PKV 081 Bt	3.33	-	-	0.00	16.67	0.00	5.00	BETL

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions – Open Boll Damage

Name of Entry	Open Boll Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	8.02	-	-	6.52	19.47	0.00	8.50	
NH 1901 Bt	7.15	-	-	6.49	22.10	0.00	8.94	
Suraj Bt	5.33	-	-	13.33	9.23	0.00	6.97	
NH 615	11.25	-	-	20.83	15.29	0.00	11.84	
NH 22003 Bt	6.30	-	-	2.86	9.78	0.00	4.73	
PKV 081 Bt	5.24	-	-	0.00	9.78	0.00	3.75	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara

**Table: Advanced Variety (Compact) Trial in Central Zone under Unprotected Conditions-
Locule Damage**

Name of Entry	Locule Damage (%)							Remark
	SU	BH	AK	NG	NA	BA	Mean	
CICR 24-13 Bt II	4.00	-	-	2.72	9.54	0.00	4.06	
NH 1901 Bt	3.56	-	-	2.92	11.13	0.00	4.40	
Suraj Bt	2.41	-	-	7.50	4.57	0.00	3.62	
NH 615	6.30	-	-	8.33	7.30	0.00	5.48	
NH 22003 Bt	3.32	-	-	1.43	4.75	0.00	2.37	
PKV 081 Bt	2.21	-	-	0.00	4.72	0.00	1.73	

SU-Surat, BH-Bharuch, AK-Akola, NG-Nagpur, NA-Nanded, BA-Banswara



Reaction to Diseases

Table 18 (c): Advanced Evaluation Trial-I of Compact Hirsutum Varieties-Rainfed (AET-I variety Compact RF) under Unprotected conditions

Code-I	Code-II	Entries	Average PDI & Disease Reaction (DR): Unprotected conditions																			
			CICR, Nagpur										Surat				Nanded					
			BLB		FFS		TSV		GM		Boll rot		BLB		ALS		CLS		BLB		GM	
			PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR	PDI	DR
5	53151	CICR 24-13 Bt II	22.1	R	16.6	R	19.3	R	44.3	MR	47.1	MR	0.0	DF	3.5	R	10.5	R	13.4	R	16.0	R
2	53152	NH 1901 Bt (ZC Bt-3)	19.3	R	11.0	R	5.5	R	47.2	MR	54.7	MS	0.0	DF	4.0	R	8.7	R	8.0	R	13.8	R
6	53153	Suraj Bt (ZC Bt-1)	19.3	R	11.0	R	8.3	R	41.5	MR	38.8	MR	0.0	DF	2.5	R	8.3	R	7.2	R	11.4	R
3	53154	NH 615 (ZC Non-Bt)	27.7	MR	22.2	R	11.0	R	44.3	MR	44.3	MR	0.0	DF	3.0	R	10.2	R	8.2	R	9.9	R
1	53155	NH 22003 Bt	32.5	MR	8.3	R	13.8	R	44.3	MR	44.3	MR	0.0	DF	2.5	R	7.3	R	8.8	R	10.6	R
4	53156	PKV 081 Bt (ZC Bt-2)	30.4	MR	19.3	R	11.0	R	44.3	MR	47.1	MR	0.0	DF	5.0	R	6.6	R	10.2	R	13.3	R



Cry Protein Expression

Irrigated Trials

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Junagadh (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
52061	PRCH 2799 Bt2 (ZC1)	4.65	7.74	6.37	3.67	4.38	4.06	2.64	6.11	3.69
52062	DC 5105 BG II	5.57	6.28	6.71	3.44	3.59	1.88	1.12	3.88	1.98
52063	NBC 2020 BG II (ZC2)	6.41	5.21	6.22	3.42	5.27	2.86	1.44	8.86	4.50
52064	KCH 9222 BG II	6.68	6.79	7.72	3.62	4.92	4.25	2.48	7.33	5.51
52065	KCH 9223 BG II	5.37	5.12	7.12	3.64	5.71	3.06	3.28	9.26	2.70
52066	RCH 1026 BG II	4.02	6.24	4.58	2.57	4.14	2.24	2.10	6.40	1.84
52067	GSCH-32 Bt II	6.57	8.09	8.65	2.36	4.86	3.22	2.56	9.62	4.64
52068	US 717 BG II	4.69	5.53	7.67	2.84	4.57	2.47	0.92	7.10	4.68
52069	KCH 9225 BG II	4.95	7.65	8.64	3.42	4.18	3.58	2.12	4.79	2.81
52070	KCH 9221 BG II	5.94	6.70	10.57	2.83	5.98	3.74	1.88	7.75	4.00
52071	ACH 151-2 BGII	3.66	5.75	6.79	3.20	4.39	2.60	1.60	5.95	3.46
52072	C 9339 BGII	5.00	5.84	8.96	3.26	4.18	3.42	1.74	6.04	3.46
52073	SS 459 BG II	4.64	6.61	10.31	3.29	5.15	3.17	1.10	8.81	4.00
52074	NBC 21 BG II	6.97	9.75	10.34	3.76	2.88	4.43	1.02	6.02	4.72
52075	C 9337 BGII	6.17	4.99	7.96	3.22	4.40	2.45	1.34	5.65	3.58
52076	RCH 1016 BG II	4.55	6.55	5.20	4.90	3.17	2.96	1.18	7.25	3.78

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Junagadh (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
52061	PRCH 2799 Bt2 (ZC1)	263.8	331.8	475.2	423.7	384.9	387.8	573.9	319.0	468.6
52062	DC 5105 BG II	318.2	274.1	370.0	384.2	271.1	190.9	360.5	122.2	185.0
52063	NBC 2020 BG II (ZC2)	343.7	305.3	446.5	517.1	353.6	314.6	676.2	289.9	308.5
52064	KCH 9222 BG II	351.9	250.0	272.4	416.4	309.1	297.8	488.3	236.5	364.5
52065	KCH 9223 BG II	331.4	263.2	385.2	491.5	429.7	315.8	648.6	344.1	316.1
52066	RCH 1026 BG II	393.4	620.9	539.7	561.2	646.6	478.3	341.6	355.1	653.3
52067	GSCH-32 Bt II	387.5	407.6	537.2	530.8	446.7	349.7	1158.7	287.1	352.3
52068	US 717 BG II	300.8	286.6	420.7	410.5	565.4	281.4	487.7	280.8	430.7
52069	KCH 9225 BG II	337.1	408.5	469.6	441.7	476.3	360.3	828.1	240.6	693.7
52070	KCH 9221 BG II	285.7	266.6	353.7	435.5	420.4	261.6	506.9	196.2	453.2
52071	ACH 151-2 BGII	193.3	235.4	228.5	285.2	350.5	239.7	515.3	165.2	579.5
52072	C 9339 BGII	268.1	209.4	283.4	311.3	324.2	288.0	460.1	121.9	426.4
52073	SS 459 BG II	302.6	335.7	652.6	617.3	552.6	527.8	636.4	324.3	510.5
52074	NBC 21 BG II	289.6	362.9	409.0	369.9	297.0	305.7	432.0	148.5	269.2
52075	C 9337 BGII	200.4	175.1	210.9	261.6	378.4	263.2	408.4	124.3	284.8
52076	RCH 1016 BG II	548.6	470.8	422.8	469.9	557.9	593.4	610.7	403.7	393.9



Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Junagadh (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
52101	PRCH 2799 Bt2 (ZC1)	6.24	7.11	4.68	2.75	4.24	3.82	3.04	4.77	3.47
20102	DC5302 BGII	4.61	5.15	6.08	4.04	4.96	3.28	1.26	6.23	2.95
52103	NBC 29 BGII	4.03	7.58	5.27	4.75	4.55	3.70	0.92	7.57	2.48
52104	RSCH-999 BGII	3.57	7.28	5.46	3.02	5.78	3.29	0.76	7.32	2.03
52105	Indam-2412 BGII	4.53	6.43	3.95	3.19	5.14	2.81	2.88	6.27	3.29
52106	ACH 41-2 BGII	3.63	7.23	4.25	2.22	4.03	4.01	2.52	4.55	2.96
52107	DGHH 1658 BG II	4.13	8.21	7.19	3.17	2.83	4.36	2.20	7.48	2.81
52108	NBC 2020 BG II (ZC2)	4.81	6.54	4.00	2.71	4.62	3.31	2.86	4.96	2.80
	PRCH 2799 Bt2 (ZC1) (normal)	2.96	7.73	3.76	3.70	4.69	4.12	1.68	4.13	2.48

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Junagadh (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
52101	PRCH 2799 Bt2 (ZC1)	362.8	363.5	239.8	451.2	464.2	359.6	655.3	328.8	439.6
20102	DC5302 BGII	351.3	229.4	278.6	449.2	325.6	240.5	356.3	175.6	185.0
52103	NBC 29 BGII	324.3	329.3	278.3	434.9	417.1	346.7	474.6	199.3	314.2
52104	RSCH-999 BGII	352.7	417.5	343.7	339.4	575.6	489.6	676.4	292.9	529.5
52105	Indam-2412 BGII	198.1	343.7	227.2	77.2	311.5	374.1	618.8	294.2	354.2
52106	ACH 41-2 BGII	336.9	324.5	261.6	146.6	389.6	435.4	505.1	229.2	393.1
52107	DGHH 1658 BG II	377.9	399.8	358.7	560.4	633.2	456.9	793.9	410.5	539.0
52108	NBC 2020 BG II (ZC2)	363.9	518.3	308.8	503.8	490.8	381.4	626.0	249.1	345.4
	PRCH 2799 Bt2 (ZC1) (normal)	326.4	377.1	272.8	423.7	484.8	455.6	514.2	257.3	462.4

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Junagadh (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
52142	NH 22254 Bt	4.23	8.73	4.56	2.88	4.15	3.64	0.96	4.19	2.60
52143	Local Check	2.84	8.09	4.92	2.69	3.54	2.41	1.58	3.59	1.97
52144	Suraj Bt (ZC Bt-1)	5.52	9.30	5.20	2.74	4.06	3.66	0.86	6.48	2.70
52145	Phule Yamuna (ZC Non-Bt)	5.05	10.57	4.15	2.98	3.99	3.50	0.97	4.63	1.86

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Junagadh (2025-26)

Entry	Leaf				Square			Bolls	
	30D	60D	90D	120D	60D	90D	120D	90D	120D
NH 22254 Bt	--	--	--	--	--	--	--	--	--
Local Check	--	--	--	--	--	--	--	--	--
Suraj Bt (ZC Bt-1)	--	--	--	--	--	--	--	--	--
Phule Yamuna (ZC Non-Bt)	--	--	--	--	--	--	--	--	--



Cry Protein Expression

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52061	PRCH 2799 Bt2 (ZC1)	6.68	9.27	6.52	2.94	4.43	3.99	2.55	7.00	5.35	2.93
52062	DC 5105 BG II	4.93	7.43	4.44	5.88	2.42	3.33	1.83	3.17	3.69	2.25
52063	NBC 2020 BG II (ZC2)	6.19	6.78	5.48	4.44	4.64	3.96	3.39	4.69	3.08	2.43
52064	KCH 9222 BG II	6.89	7.97	3.66	2.36	4.19	4.61	3.08	10.21	3.80	2.42
52065	KCH 9223 BG II	6.42	4.73	6.40	4.36	5.78	4.71	3.26	6.17	5.05	3.44
52066	RCH 1026 BG II	5.08	6.80	3.92	2.96	2.66	3.53	2.28	5.29	3.16	1.98
52067	GSCH-32 Bt II	5.17	7.40	5.84	4.70	4.28	3.30	2.61	6.76	2.73	2.26
52068	US 717 BG II	4.93	7.75	3.04	4.60	4.47	2.72	2.73	4.55	4.01	2.47
52069	KCH 9225 BG II	4.26	5.50	4.92	2.36	3.39	3.20	3.08	4.52	3.12	2.46
52070	KCH 9221 BG II	5.12	5.69	8.14	3.44	4.85	3.06	3.62	5.69	5.24	2.52
52071	ACH 151-2 BGII	4.62	7.68	2.72	3.92	4.79	3.09	2.96	5.89	4.41	2.54
52072	C 9339 BGII	3.24	6.94	5.84	2.32	3.92	3.14	1.55	6.27	4.96	2.05
52073	SS 459 BG II	5.09	5.68	7.24	1.40	4.97	2.63	2.87	3.93	4.34	2.91
52074	NBC 21 BG II	6.37	9.23	6.84	3.46	3.36	2.93	2.24	5.37	5.63	2.41
52075	C 9337 BGII	6.06	5.91	7.06	5.26	3.99	2.01	1.65	4.33	5.01	2.90
52076	RCH 1016 BG II	6.40	7.60	6.94	3.78	4.13	2.19	2.85	3.43	3.66	4.05

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52061	PRCH 2799 Bt2 (ZC1)	468.6	499.7	351.0	262.2	466.5	237.5	491.4	487.6	700.7	279.3
52062	DC 5105 BG II	458.8	292.3	235.7	300.1	268.3	85.4	285.8	231.7	340.9	258.6
52063	NBC 2020 BG II (ZC2)	472.6	410.3	352.4	383.9	407.2	341.7	501.6	448.1	326.1	229.8
52064	KCH 9222 BG II	448.9	428.9	212.4	326.1	384.4	286.4	456.3	513.4	347.1	115.9
52065	KCH 9223 BG II	411.4	400.9	288.9	376.4	527.6	167.3	498.3	518.4	466.2	59.3
52066	RCH 1026 BG II	470.3	773.4	664.1	539.8	615.3	404.4	749.2	760.7	688.0	312.9
52067	GSCH-32 Bt II	299.7	446.5	353.8	411.5	469.7	442.2	483.6	221.5	319.3	263.7
52068	US 717 BG II	367.2	415.8	271.2	319.5	473.8	399.3	486.9	292.5	293.5	234.2
52069	KCH 9225 BG II	246.6	338.5	245.8	288.8	367.5	425.4	509.4	284.4	339.9	128.8
52070	KCH 9221 BG II	230.2	371.9	291.6	280.3	408.3	347.4	421.4	242.8	471.1	187.4
52071	ACH 151-2 BGII	246.2	361.4	203.4	321.8	377.1	311.7	384.2	282.3	282.2	91.1
52072	C 9339 BGII	297.5	442.9	207.0	318.9	329.0	276.7	208.4	175.9	236.8	57.9
52073	SS 459 BG II	271.6	508.1	398.9	332.1	694.8	503.6	577.2	296.2	306.8	143.4
52074	NBC 21 BG II	264.2	323.6	234.3	252.2	324.8	285.5	355.0	218.6	314.4	71.1
52075	C 9337 BGII	607.5	287.6	206.7	330.1	300.4	231.3	235.0	126.7	182.7	112.4
52076	RCH 1016 BG II	587.5	386.6	292.6	385.5	582.0	450.0	852.1	160.3	235.4	333.6



Cry1Ac Protein Quantity (ppm or µg/g dwt) in CET- HXB-Compact trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52111	NCHB 9959 Bt	6.05	4.38	3.26	1.40	3.95	3.41	1.94	4.67	3.52	3.37
52112	MRC 6918 BG II (ZC 2)	5.91	7.62	4.08	2.00	4.29	3.38	2.67	6.08	3.23	5.45
52113	GBCH 2002 BGII	7.03	6.02	6.14	2.30	4.14	3.71	2.76	6.31	4.17	3.98
52114	ACHB 2111 BGII	7.41	3.96	4.04	2.28	4.73	2.94	2.60	5.00	2.99	5.70
52115	US 781 BGII	4.40	6.30	5.44	2.08	4.19	3.87	2.57	5.93	2.95	4.09
52116	DACHB 71C17 BGII	5.16	4.82	5.76	2.76	4.44	3.05	2.84	4.51	3.71	3.26
52117	MRC 7918 BG II (ZC 1)	6.48	5.90	5.56	1.66	5.52	4.01	3.57	5.59	5.47	5.01

Cry2Ab Protein Quantity (ppm or µg/g dwt) in CET- HXB-Compact trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52111	NCHB 9959 Bt	540.8	308.9	243.6	471.8	374.0	234.7	411.2	396.1	547.4	629.2
52112	MRC 6918 BG II (ZC 2)	351.5	347.9	207.0	332.1	372.6	260.8	500.7	321.7	514.0	504.3
52113	GBCH 2002 BGII	491.3	300.8	321.5	311.3	311.3	310.2	409.8	266.2	439.4	322.3
52114	ACHB 2111 BGII	664.1	260.5	227.4	304.8	391.0	259.5	589.1	376.6	555.2	536.3
52115	US 781 BGII	453.2	417.1	241.5	467.7	403.4	373.1	729.2	369.3	498.1	361.9
52116	DACHB 71C17 BGII	542.5	231.5	233.4	351.5	402.9	261.7	475.5	316.7	518.9	574.4
52117	MRC 7918 BG II (ZC 1)	490.4	289.6	265.0	267.0	366.2	279.0	385.1	360.2	381.9	544.7

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52101	PRCH 2799 Bt2 (ZC1)	7.33	4.88	5.51	2.58	5.33	2.36	2.33	4.88	5.17	5.75
52102	DC5302 BGII	8.29	4.38	3.04	3.53	3.24	2.54	1.93	6.29	5.50	8.50
52103	NBC 29 BGII	5.29	9.63	4.66	4.95	2.78	3.62	1.60	5.39	5.12	6.01
52104	RSCH-999 BGII	6.10	5.67	4.17	2.96	3.54	1.93	2.53	4.83	3.56	3.61
52105	Indam-2412 BGII	5.21	4.87	3.31	1.26	2.96	3.46	2.11	7.83	3.08	4.05
52106	ACH 41-2 BGII	5.99	4.87	3.87	4.07	3.16	2.80	1.45	7.19	4.93	5.87
52107	DGHH 1658 BG II	9.27	4.73	4.09	3.57	3.28	3.32	2.08	5.90	2.17	3.53
52108	NBC 2020 BG II (ZC2)	5.76	5.08	3.31	4.24	3.12	3.06	2.26	4.90	2.86	2.38
52109	PRCH 2799 Bt2 (ZC1) (normal)	6.96	5.30	4.17	2.29	3.96	2.60	2.15	5.20	2.42	5.56

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52101	PRCH 2799 Bt2 (ZC1)	491.9	382.9	396.3	408.2	361.3	289.2	445.4	307.1	319.0	242.5
52102	DC5302 BGII	499.7	349.0	229.9	356.5	230.7	202.8	238.4	167.4	156.2	152.9
52103	NBC 29 BGII	371.0	746.0	357.6	703.1	212.2	253.6	329.6	295.7	201.3	208.9
52104	RSCH-999 BGII	579.5	571.9	365.2	695.7	332.0	479.4	432.2	315.3	385.6	420.9
52105	Indam-2412 BGII	420.2	529.2	204.5	463.0	208.6	133.5	386.3	287.1	257.2	189.8
52106	ACH 41-2 BGII	369.1	364.5	285.9	561.9	278.1	246.6	342.9	259.6	322.3	187.5
52107	DGHH 1658 BG II	424.4	354.4	336.6	459.4	437.5	347.3	360.1	347.0	405.9	444.2
52108	NBC 2020 BG II (ZC2)	526.2	642.1	329.7	733.9	302.6	392.9	452.6	205.4	240.0	235.2
52109	PRCH 2799 Bt2 (ZC1) (normal)	389.1	536.2	292.8	431.8	332.8	274.3	439.0	417.6	295.3	368.6

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52142	NH 22254 Bt	5.12	6.68	4.80	2.03	3.21	2.87	1.70	6.45	2.61	4.16
52143	Local Check	2.97	5.66	4.06	2.61	5.48	2.32	1.91	3.87	3.49	4.41
52144	Suraj Bt (ZC Bt-1)	6.65	4.23	6.88	1.65	3.54	2.87	1.62	8.14	4.30	5.13
52145	Phule Yamuna (ZC Non-Bt)	5.73	5.33	4.92	2.15	4.41	2.40	2.03	4.63	3.63	5.16

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Rahuri (2025-26)

Code-II	Entry	Leaf				Square			Bolls		
		30D	60D	90D	120D	60D	90D	120D	60D	90D	120D
52142	NH 22254 Bt	--	---	--	--	--	--	--	--	--	-
52143	Local Check	--	--	--	--	--	--	--	--	--	--
52144	Suraj Bt (ZC Bt-1)	--	--	--	--	--	--	--	--	--	--
52145	Phule Yamuna (ZC Non-Bt)	--	--	--	--	--	--	--	--	--	--

Cry Protein Expression

Rainfed Trials

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53041	AKHH 2022-1 (BGI)	2.96	4.50	6.87	4.15	2.94	3.16	2.77	4.98	2.84
53042	AKHH 2022-2 (BGI)	5.82	5.14	9.02	3.05	3.34	2.79	2.01	7.10	2.30
53043	KCH 9227 BGII	6.08	5.63	9.42	3.02	3.27	3.25	2.20	5.26	2.44
53044	Jadoo BG II (ZC1)	6.54	5.43	9.26	4.67	3.14	3.27	3.38	6.64	2.68
53045	RCH 1060 BG II	7.76	6.33	8.79	2.88	2.76	2.51	1.64	4.12	1.20
53046	BIO 6720 BGII	5.06	5.62	9.84	2.89	2.40	2.09	1.16	2.30	0.50
53047	DACH 64C64 BGII	5.13	5.23	9.52	3.26	3.31	2.44	2.29	6.28	2.70
53048	MRC 7347BG II (ZC2)	4.29	5.39	7.15	2.68	3.09	2.46	1.47	4.30	1.76
53049	Core 101	3.33	4.03	6.99	2.80	2.11	2.57	1.62	4.50	1.64
53050	KCH 9226 BGII	7.80	8.00	9.97	4.19	3.54	4.00	2.24	5.44	2.42
53051	RCH 1039 BGII	5.30	5.72	9.07	3.25	2.22	2.33	1.33	4.54	1.24

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53041	AKHH 2022-1 (BGI)	--	--	--	--	--	--	--	--	--
53042	AKHH 2022-2 (BGI)	--	--	--	--	--	--	--	--	--
53043	KCH 9227 BGII	217.4	328.9	350.6	250.7	316.5	478.0	333.6	366.0	164.9
53044	Jadoo BG II (ZC1)	261.5	321.8	331.5	271.9	401.6	325.9	340.3	357.8	202.9
53045	RCH 1060 BG II	227.6	600.8	692.6	625.7	660.2	639.0	623.3	681.0	294.7
53046	BIO 6720 BGII	216.4	236.9	347.7	284.4	309.0	332.6	295.6	390.4	95.1
53047	DACH 64C64 BGII	314.8	419.0	405.5	353.1	502.6	587.3	404.4	440.7	268.3
53048	MRC 7347BG II (ZC2)	545.8	805.4	772.6	556.5	598.7	725.8	590.7	812.2	317.1
53049	Core 101	537.4	559.1	584.7	527.4	637.2	764.3	783.9	504.8	381.8
53050	KCH 9226 BGII	202.3	328.3	292.4	295.6	236.2	437.6	271.2	269.2	205.9
53051	RCH 1039 BGII	516.9	755.0	784.6	645.0	460.6	735.7	801.8	618.8	312.1



Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53081	GBCH 5094 BGII	3.73	4.80	6.00	4.52	3.51	2.99	3.01	3.25	2.16
53082	RCH 1119BGII	6.04	5.40	6.48	3.32	4.05	2.76	2.37	5.33	1.92
53083	BIO 6910 BGII	3.12	3.63	4.97	3.26	2.28	2.02	2.00	3.34	2.21
53084	US 704 BG II (ZC 2)	5.45	6.90	8.13	4.91	3.49	3.57	1.24	4.54	3.59
53085	PCH 7533 Bt2	4.31	4.65	6.25	3.58	3.78	2.97	1.20	5.67	2.03
53086	US 751 BGII	3.96	4.72	7.16	4.32	2.85	3.17	1.36	4.43	2.43
53087	C 9407 BG-II	8.37	5.83	9.47	3.91	3.35	2.94	0.88	3.81	1.95
53088	ARCH 777 BG II (ZC 1)	9.06	5.32	10.49	4.67	4.87	3.57	1.56	6.02	2.29
53089	NCS 9954 Bt2	4.03	4.98	8.18	3.73	3.00	2.43	1.05	4.52	2.63
53090	KCH 9287 BGII	6.31	6.96	7.62	3.80	4.40	3.45	1.40	5.45	2.42
53091	ACH 31-2 BGII	8.20	6.78	6.86	3.87	3.65	3.53	1.73	4.88	3.26
	ARCH 777 BG II (ZC 1) (normal)	7.45	9.03	8.43	3.51	5.25	5.61	1.48	6.20	2.72

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53081	GBCH 5094 BGII	373.6	312.5	516.7	290.4	379.6	394.3	360.9	304.4	231.2
53082	RCH 1119BGII	251.1	290.4	282.0	157.5	258.1	344.2	276.7	282.4	127.4
53083	BIO 6910 BGII	355.3	262.1	310.5	236.0	261.8	309.0	205.4	166.3	137.3
53084	US 704 BG II (ZC 2)	392.5	331.4	374.6	254.3	372.1	285.7	279.4	280.4	148.5
53085	PCH 7533 Bt2	317.7	321.7	447.6	191.9	351.3	369.0	297.5	348.0	164.9
53086	US 751 BGII	391.6	693.0	907.1	581.2	704.1	930.6	841.2	889.0	356.9
53087	C 9407 BG-II	379.9	384.3	352.2	254.1	257.0	382.5	206.2	245.5	102.5
53088	ARCH 777 BG II (ZC 1)	350.6	309.0	351.7	254.1	321.0	557.5	342.0	452.8	228.1
53089	NCS 9954 Bt2	448.6	415.3	485.6	371.7	376.0	558.3	252.4	367.9	154.4
53090	KCH 9287 BGII	247.7	413.6	527.4	299.9	466.2	574.7	323.5	491.0	168.9
53091	ACH 31-2 BGII	292.7	278.0	360.9	208.4	363.8	250.2	234.1	289.2	101.4
	ARCH 777 BG II (ZC 1) (normal)	427.2	416.6	516.5	222.8	419.7	526.7	294.5	514.0	143.1

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53121	CPDBt 2454	4.10	6.36	4.20	3.15	4.05	1.98	1.36	5.54	2.94
53123	Suraj Bt (ZC Bt)	2.88	6.28	3.49	3.72	3.44	2.83	1.93	6.48	4.66
53124	Local Check NBt	4.35	9.36	5.68	3.21	4.50	3.26	1.07	6.40	2.52
53125	NH 615 (Zonal Check NBt)	--	--	--	--	--	--	--	--	--
53126	NH 22067 Bt	3.23	7.82	5.72	3.43	2.57	2.91	1.03	4.24	1.80



Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53121	CPDBt 2454	--	--	--	--	--	--	--	--	--
53123	Suraj Bt (ZC Bt)	--	--	--	--	--	--	--	--	--
53124	Local Check NBt	--	--	--	--	--	--	--	--	--
53125	NH 615 (Zonal Check NBt)	--	--	--	--	--	--	--	--	--
53126	NH 22067 Bt	344.2	567.8	583.7	481.1	343.9	1043.4	595.1	399.7	315.7

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I Hirsutum-Compact trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53151	CICR 24-13 Bt II	7.21	9.29	6.45	3.55	3.28	5.08	1.84	4.84	2.10
53152	NH 1901 Bt (ZC Bt-2)	4.22	6.58	4.36	1.85	3.47	3.30	1.18	3.89	1.69
53153	Suraj Bt (ZC Bt-1)	3.28	6.22	4.99	3.18	3.86	2.92	2.34	4.96	2.60
53154	NH 615 (ZC Non-Bt)	--	--	--	--	--	--	--	--	--
53155	NH 22003 Bt	2.45	6.11	3.91	2.47	3.32	2.02	1.62	4.17	1.79

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I Hirsutum -Compact trial at Surat (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53151	CICR 24-13 Bt II	713.1	609.4	647.9	462.3	731.9	861.1	658.3	414.6	487.5
53152	NH 1901 Bt (ZC Bt-2)	--	--	--	--	--	--	--	--	--
53153	Suraj Bt (ZC Bt-1)	--	--	--	--	--	--	--	--	--
53154	NH 615 (ZC Non-Bt)	--	--	--	--	--	--	--	--	--
53155	NH 22003 Bt	488.2	485.1	548.2	317.9	521.2	268.5	487.3	238.8	410.7



Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53041	AKHH 2022-1 (BGI)	4.88	5.78	7.08	1.68	4.36	2.69	3.06	5.84	1.68
53042	AKHH 2022-2 (BGI)	3.83	6.85	7.80	1.90	4.54	2.74	3.02	5.69	2.97
53043	KCH 9227 BGII	6.86	7.92	7.89	2.78	4.37	2.93	2.77	6.21	2.28
53044	Jadoo BG II (ZC1)	8.05	9.20	8.19	3.12	4.38	4.89	3.42	5.66	4.14
53045	RCH 1060 BG II	3.76	8.92	7.11	1.50	3.63	2.80	2.59	3.75	2.43
53046	BIO 6720 BGII	5.92	6.76	6.69	2.77	3.02	2.99	2.30	3.71	2.43
53047	DACH 64C64 BGII	4.77	7.14	7.71	2.24	3.76	2.76	2.63	6.25	1.62
53048	MRC 7347BG II (ZC2)	5.39	7.61	7.17	2.50	3.38	4.38	3.74	5.76	2.85
53049	Core 101	4.38	6.78	9.06	2.34	2.90	3.29	2.98	4.89	1.14
53050	KCH 9226 BGII	6.80	8.61	8.64	4.29	4.08	3.12	2.22	7.67	2.85
53051	RCH 1039 BGII	6.91	6.37	7.98	1.64	3.82	1.44	1.53	6.10	2.97

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53041	AKHH 2022-1 (BGI)	--	--	--	--	--	--	--	--	--
53042	AKHH 2022-2 (BGI)	--	--	--	--	--	--	--	--	--
53043	KCH 9227 BGII	208.3	277.1	291.1	216.0	302.1	359.4	267.0	437.4	153.0
53044	Jadoo BG II (ZC1)	190.3	278.3	324.8	212.2	286.7	432.1	281.2	424.4	206.9
53045	RCH 1060 BG II	324.4	728.4	622.2	481.5	658.6	669.7	475.7	511.5	299.3
53046	BIO 6720 BGII	197.8	245.3	242.4	265.1	264.8	344.2	248.9	345.8	133.2
53047	DACH 64C64 BGII	216.3	405.1	439.4	334.5	496.0	563.8	358.9	517.1	248.6
53048	MRC 7347BG II (ZC2)	514.0	804.7	680.7	566.3	918.4	643.7	634.2	743.3	781.9
53049	Core 101	598.7	673.3	732.7	592.1	852.1	657.8	552.4	753.0	489.4
53050	KCH 9226 BGII	275.5	254.9	338.4	305.2	297.9	549.9	228.3	457.5	200.9
53051	RCH 1039 BGII	467.8	601.3	636.7	424.3	594.4	766.1	473.3	494.4	425.5

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53081	GBCH 5094 BGII	3.55	5.16	7.85	2.39	4.68	2.89	1.38	3.43	1.89
53082	RCH 1119BGII	5.29	3.38	6.34	3.12	4.91	3.11	1.42	6.85	1.91
53083	BIO 6910 BGII	4.46	4.08	6.95	2.70	3.09	2.26	1.26	4.88	1.56
53084	US 704 BG II (ZC 2)	5.02	6.07	9.72	6.46	4.52	2.69	1.52	4.98	1.34
53085	PCH 7533 Bt2	4.26	6.15	8.72	3.78	3.85	3.46	1.35	6.52	1.94
53086	US 751 BGII	4.26	5.22	8.61	3.50	3.68	2.43	1.27	3.86	2.64
53087	C 9407 BG-II	4.91	5.50	9.20	5.37	2.82	2.47	1.05	3.55	3.17
53088	ARCH 777 BG II (ZC 1)	6.75	7.52	9.16	4.20	4.19	3.98	1.79	5.91	3.01
53089	NCS 9954 Bt2	3.42	6.16	5.42	4.86	2.60	2.21	1.26	3.88	1.80
53090	KCH 9287 BGII	5.96	8.07	5.99	4.62	3.21	3.58	1.55	8.37	2.20
53091	ACH 31-2 BGII	6.94	4.91	6.28	3.81	4.19	4.64	2.43	7.04	5.65
	ARCH 777 BG II (ZC 1) (normal)	6.42	7.74	6.20	2.99	4.24	4.45	2.03	6.80	2.90

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53081	GBCH 5094 BGII	307.5	298.4	490.0	361.5	434.5	360.3	475.9	413.4	191.4
53082	RCH 1119BGII	280.3	254.7	260.3	221.6	273.0	224.5	246.3	314.8	150.8
53083	BIO 6910 BGII	276.3	192.0	368.1	206.5	286.6	161.3	270.5	321.6	183.1
53084	US 704 BG II (ZC 2)	236.2	212.7	457.3	342.4	449.1	233.4	360.1	270.4	143.6
53085	PCH 7533 Bt2	274.4	376.2	521.6	296.8	332.4	323.0	585.8	457.4	231.4
53086	US 751 BGII	466.2	548.1	505.1	382.3	737.5	760.6	837.5	341.7	341.7
53087	C 9407 BG-II	285.4	260.8	409.0	263.6	244.1	240.7	334.0	250.1	135.0
53088	ARCH 777 BG II (ZC 1)	267.8	383.7	452.0	273.8	257.5	298.4	440.1	557.1	146.3
53089	NCS 9954 Bt2	258.0	447.3	508.7	376.1	301.8	225.3	580.3	328.3	158.7
53090	KCH 9287 BGII	253.0	397.7	448.2	261.7	281.8	266.9	383.7	293.0	208.0
53091	ACH 31-2 BGII	265.2	229.4	328.3	224.6	200.8	215.5	365.2	239.2	180.8
	ARCH 777 BG II (ZC 1) (normal)	239.9	348.0	381.4	265.9	265.8	255.3	448.8	406.2	182.2



Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53121	CPDBt 2454	3.92	5.09	5.71	2.81	4.07	2.17	1.39	5.05	2.13
53123	Suraj Bt (ZC Bt)	4.16	4.69	6.41	2.96	4.12	2.90	1.38	4.91	2.13
53124	Local Check NBt	4.20	7.92	6.23	2.99	2.48	2.43	0.96	4.16	3.06
53125	NH 615 (Zonal Check NBt)	--	--	--	--	--	--	--	--	--
53126	NH 22067 Bt	5.85	5.50	6.10	3.39	3.07	2.84	0.85	3.34	3.87

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53121	CPDBt 2454	--	--	--	--	--	--	--	--	--
53123	Suraj Bt (ZC Bt)	--	--	--	--	--	--	--	--	--
53124	Local Check NBt	--	--	--	--	--	--	--	--	--
53125	NH 615 (Zonal Check NBt)	--	--	--	--	--	--	--	--	--
53126	NH 22067 Bt	424.7	516.0	565.4	540.9	703.2	723.2	675.5	375.8	276.2

Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I Hirsutum-Compact trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53151	CICR 24-13 Bt II	6.13	6.85	5.92	4.61	3.30	5.25	1.84	3.99	2.25
53152	NH 1901 Bt (ZC Bt-2)	5.29	4.34	4.31	3.65	2.72	1.95	2.20	2.40	1.08
53153	Suraj Bt (ZC Bt-1)	4.54	5.98	4.07	2.79	3.64	4.35	1.82	6.06	3.28
53154	NH 615 (ZC Non-Bt)	--	--	--	--	--	--	--	--	--
53155	NH 22003 Bt	3.63	5.26	5.65	3.44	4.06	2.87	1.54	4.24	3.40

Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I Hirsutum -Compact trial at Nagpur (2025-26)

Code-II	Entry	Leaf				Square			Bolls	
		30D	60D	90D	120D	60D	90D	120D	90D	120D
53151	CICR 24-13 Bt II	656.8	576.9	499.3	512.2	424.3	847.6	909.6	395.8	418.9
53152	NH 1901 Bt (ZC Bt-2)	--	--	--	--	--	--	--	--	--
53153	Suraj Bt (ZC Bt-1)	--	--	--	--	--	--	--	--	--
53154	NH 615 (ZC Non-Bt)	--	--	--	--	--	--	--	--	--
53155	NH 22003 Bt	481.2	293.8	421.5	588.3	469.7	463.7	778.5	348.0	692.0



***Helicoverpa armigera* Bioassay**

Central Zone Irrigated

Laboratory Bioassay of *Helicoverpa armigera* MPKV, Rahuri Center 2025-26

Table.5 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on leaf in laboratory condition at MPKV, Rahuri

Name of Entry	Leaf Mortality (%)						Mean
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	
PRCH 2799 Bt2 (ZC1)	-	96.20	93.40	90.40	88.10	-	92.03
DC 5105 BG II	-	95.10	90.30	90.00	88.00	-	90.85
NBC 2020 BG II (ZC2)	-	96.00	93.00	91.50	90.40	-	92.73
KCH 9222 BG II	-	95.30	92.20	90.30	89.00	-	91.70
KCH 9223 BG II	-	93.20	91.50	90.10	87.20	-	90.50
RCH 1026 BG II	-	94.20	92.20	89.80	88.50	-	91.18
GSCH-32 Bt II	-	95.00	93.00	90.10	90.30	-	92.10
US 717 BG II	-	93.10	90.50	91.30	87.00	-	90.48
KCH 9225 BG II	-	91.20	90.00	88.60	88.80	-	89.65
KCH 9221 BG II	-	95.50	93.70	90.70	91.30	-	92.80
ACH 151-2 BGII	-	94.00	90.30	88.20	89.50	-	90.50
C 9339 BGII	-	95.20	90.00	91.00	88.00	-	91.05
SS 459 BG II	-	92.10	89.50	87.90	85.60	-	88.78
NBC 21 BG II	-	94.30	90.70	86.00	84.40	-	88.85
C 9337 BGII	-	93.00	88.00	85.80	85.90	-	88.18
RCH 1016 BG II	-	96.10	89.10	87.00	88.10	-	90.08
PRCH-2799 BG II	-	94.60	85.30	83.00	84.30	-	86.80

Table.6 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on Square, Flower & Bolls in laboratory condition at MPKV, Rahuri

Name of Entry	Mortality (%)			Mean
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	
PRCH 2799 Bt2 (ZC1)	93.10	94.80	92.40	93.43
DC 5105 BG II	95.50	93.60	90.60	93.23
NBC 2020 BG II (ZC2)	92.60	92.00	90.00	91.53
KCH 9222 BG II	94.40	92.30	89.40	92.03
KCH 9223 BG II	91.10	90.80	85.80	89.23
RCH 1026 BG II	93.00	91.00	88.20	90.73
GSCH-32 Bt II	92.00	91.30	84.40	89.23
US 717 BG II	92.30	92.10	90.30	91.57
KCH 9225 BG II	90.40	89.50	89.10	89.67
KCH 9221 BG II	93.30	91.00	91.40	91.90
ACH 151-2 BGII	93.00	93.40	92.00	92.80
C 9339 BGII	95.60	96.00	90.20	93.93
SS 459 BG II	94.50	92.10	91.00	92.53
NBC 21 BG II	96.00	92.60	93.50	94.03
C 9337 BGII	91.30	90.00	89.60	90.30
RCH 1016 BG II	95.70	89.90	90.00	91.87
PRCH-2799 BG II	93.10	92.70	88.80	91.53



Table.7 *Helicoverpa armigera* bioassay on Advance HxH Compact hybrid trial (AET-I) on leaf in laboratory condition at MPKV, Rahuri

Name of Entry	Leaf Mortality (%)						
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	Mean
PRCH 2799 Bt2 (ZC1)	-	95.50	91.00	92.30	89.40	-	92.05
DC5302 BGII	-	97.10	93.20	90.50	87.20	-	92.00
NBC 29 BGII	-	91.40	90.70	90.00	88.70	-	90.20
RSCH-999 BGII	-	93.00	90.10	88.30	89.10	-	90.13
Indam-2412 BGII	-	95.50	92.10	90.30	85.00	-	90.73
ACH 41-2 BGII	-	91.90	89.70	90.00	85.40	-	89.25
DGHH 1658 BG II	-	94.00	93.20	88.60	84.00	-	89.95
NBC 2020 BG II (ZC2)	-	92.10	92.00	89.30	87.00	-	90.10
PRCH-2799 BG II (ZC)	-	93.70	90.50	86.50	85.60	-	89.08

Table.8 *Helicoverpa armigera* bioassay on Advance HxH Compact hybrid trial (AET-I) on Square, Flower & Bolls in laboratory condition at MPKV, Rahuri

Name of Entry	Mortality (%)			
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	Mean
PRCH 2799 Bt2 (ZC1)	93.00	94.20	90.80	92.67
DC5302 BGII	95.30	91.30	88.40	91.67
NBC 29 BGII	92.50	90.00	90.30	90.93
RSCH-999 BGII	94.00	89.50	90.00	91.17
Indam-2412 BGII	93.70	90.00	89.50	91.07
ACH 41-2 BGII	90.10	87.30	88.60	88.67
DGHH 1658 BG II	92.00	90.50	85.80	89.43
NBC 2020 BG II (ZC2)	90.80	88.00	85.20	88.00
PRCH-2799 BG II (ZC)	89.20	90.00	87.50	88.90

Table.9 *Helicoverpa armigera* bioassay on Advance Hir. Variety trial (AET-II) on leaf in laboratory condition at MPKV, Rahuri

Name of Entry	Leaf Mortality (%)						
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	Mean
NH 22254 Bt	-	96.50	91.00	89.40	90.10	-	91.75
Local Check	-	92.00	89.60	87.00	85.70	-	88.58
Suraj Bt (ZC Bt-1)	-	94.00	90.30	89.60	89.80	-	90.93
NH 22254 Bt	-	22.50	20.60	19.50	22.10	-	21.18
Local Check	-	17.80	19.40	23.10	23.00	-	20.83
Phule 688 (LC)	-	23.00	20.60	18.00	16.80	-	19.60

Table.10 *Helicoverpa armigera* bioassay on Advance Hir. Variety trial (AET-II) on Square, Flower & Bolls in laboratory condition at MPKV, Rahuri

Name of Entry	Mortality (%)			
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	Mean
NH 22254 Bt	92.10	90.20	87.60	89.97
Local Check	90.50	88.70	85.20	88.13
Suraj Bt (ZC Bt-1)	93.30	90.00	91.70	91.67
Phule Yamuna (ZC Non-Bt)	18.20	21.70	15.40	18.43
NH 22254 Bt	20.10	19.50	17.70	19.10
Phule 688 (LC)	17.00	16.10	15.50	16.20

Table.11 *Helicoverpa armigera* bioassay on Advance Hir. Variety trial (CET-HXB) on leaf in laboratory condition at MPKV, Rahuri

Name of Entry	Leaf Mortality (%)						Mean
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	
NCHB 9959 Bt	-	96.00	92.20	91.30	88.80	-	92.08
MRC 6918 BG II (ZC 2)	-	93.30	93.00	91.50	91.30	-	92.28
GBCH 2002 BGII	-	94.20	90.70	90.30	89.10	-	91.08
ACHB 2111 BGII	-	95.60	90.00	90.10	85.00	-	90.18
US 781 BGII	-	95.00	93.70	89.80	89.40	-	91.98
DACHB 71C17 BGII	-	93.10	90.50	90.10	87.20	-	90.23
MRC 7918 BG II (ZC 1)		92.40	90.00	88.60	88.90		89.98
Bahubali BG II		94.30	90.30	90.70	90.40		91.43

Table.12 *Helicoverpa armigera* bioassay on Advance Hir. Variety trial (CET-HXB) on Square, Flower & Bolls in laboratory condition at MPKV, Rahuri

Name of Entry	Mortality (%)			
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	Mean
NCHB 9959 Bt	93.10	93.40	89.60	92.03
MRC 6918 BG II (ZC 2)	95.30	94.20	90.00	93.17
GBCH 2002 BGII	92.60	91.30	91.00	91.63
ACHB 2111 BGII	94.40	90.00	88.80	91.07
US 781 BGII	92.30	89.50	89.60	90.47
DACHB 71C17 BGII	90.40	91.00	93.50	91.63
MRC 7918 BG II (ZC 1)	93.30	90.50	88.20	90.67
Bahubali BG II	95.10	88.00	84.40	89.17



***Helicoverpa armigera* Bioassay**

Central Zone Rainfed

Laboratory Bioassay of *Helicoverpa armigera* at Nagpur Center 2025-26

Table.13 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on leaf in laboratory condition at Nagpur

Name of entry	Leaf Mortality (%)						Mean
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	
AKHH 2022-1 (BGI)	90.00	96.67	90.00	-	-	-	92.22
AKHH 2022-2 (BGI)	86.67	96.67	93.33	-	-	-	92.22
KCH 9227 BGII	100.00	100.00	93.33	-	-	-	97.78
Jadoo BG II (ZC1)	93.33	100.00	100.00	-	-	-	97.78
RCH 1060 BG II	93.33	100.00	93.33	-	-	-	95.55
BIO 6720 BGII	96.67	100.00	90.00	-	-	-	95.56
DACH 64C64 BGII	93.33	90.00	90.00	-	-	-	91.11
MRC 7347BG II (ZC2)	100.00	100.00	93.33	-	-	-	97.78
Core 101	93.33	96.67	100.00	-	-	-	96.67
KCH 9226 BGII	100.00	100.00	100.00	-	-	-	100.00
RCH 1039 BGII	100.00	100.00	100.00	-	-	-	100.00

Table.14 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on Square, Flower & Bolls in laboratory condition at Nagpur

Name of entry	Mortality (%)			Mean
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	
AKHH 2022-1 (BGI)	90.00	86.67	93.33	90.00
AKHH 2022-2 (BGI)	90.00	90.00	96.67	92.22
KCH 9227 BGII	96.67	93.33	96.67	95.56
Jadoo BG II (ZC1)	90.00	96.67	100.00	95.56
RCH 1060 BG II	93.33	96.67	93.33	94.44
BIO 6720 BGII	93.33	93.33	96.67	94.44
DACH 64C64 BGII	93.33	96.67	93.33	94.44
MRC 7347BG II (ZC2)	96.67	96.67	96.67	96.67
Core 101	96.67	93.33	96.67	95.56
KCH 9226 BGII	90.00	93.33	93.33	92.22
RCH 1039 BGII	96.67	96.67	96.67	96.67



Table.15 *Helicoverpa armigera* bioassay on Advance HxH compact hybrid trial (AET-I) on leaf in laboratory condition at Nagpur

Name of entry	Leaf Mortality (%)						Mean
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	
GBCH 5094 BGII	100.00	100.00	100.00	-	-	-	100.00
RCH 1119BGII	100.00	100.00	100.00	-	-	-	100.00
BIO 6910 BGII	100.00	96.67	100.00	-	-	-	98.89
US 704 BG II (ZC 2)	100.00	100.00	100.00	-	-	-	100.00
PCH 7533 Bt2	100.00	100.00	100.00	-	-	-	100.00
US 751 BGII	100.00	100.00	100.00	-	-	-	100.00
C 9407 BG-II	100.00	100.00	96.67	-	-	-	98.89
ARCH 777 BG II (ZC 1)	100.00	100.00	100.00	-	-	-	100.00
NCS 9954 Bt2	100.00	100.00	100.00	-	-	-	100.00
KCH 9287 BGII	100.00	100.00	100.00	-	-	-	100.00
ACH 31-2 BGII	100.00	100.00	100.00	-	-	-	100.00

Table.16 *Helicoverpa armigera* bioassay on Advance HxH compact hybrid trial (AET-I) on Square, Flower & Bolls in laboratory condition at Nagpur

Name of entry	Mortality (%)			Mean
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	
GBCH 5094 BGII	100.00	96.67	93.33	96.67
RCH 1119BGII	100.00	96.67	96.67	97.78
BIO 6910 BGII	93.33	96.67	93.33	94.44
US 704 BG II (ZC 2)	96.67	100.00	93.33	96.67
PCH 7533 Bt2	100.00	93.33	100.00	97.78
US 751 BGII	96.67	100.00	96.67	97.78
C 9407 BG-II	100.00	96.67	100.00	98.89
ARCH 777 BG II (ZC 1)	96.67	96.67	96.67	96.67
NCS 9954 Bt2	96.67	100.00	93.33	96.67
KCH 9287 BGII	100.00	93.33	93.33	95.55
ACH 31-2 BGII	93.33	96.67	96.67	95.56



Table.17 *Helicoverpa armigera* bioassay on Advance *Hirsutum* variety trial (AET-II) on leaf in laboratory condition at Nagpur

Name of entry	Leaf Mortality (%)						Mean
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	
CPDBt 2454	96.67	100.00	100.00	-	-	-	98.89
PKV 081 Bt (ZC Bt-2)	96.67	100.00	100.00	-	-	-	98.89
Suraj Bt (ZC Bt-1)	93.33	100.00	100.00	-	-	-	97.78
Local Check NBt	93.33	96.67	100.00	-	-	-	96.67
NH 615 (Zonal Check NBt)	16.67	20.00	16.67	-	-	-	17.78
NH 22067 Bt	100.00	100.00	100.00	-	-	-	100.00

Table.18 *Helicoverpa armigera* bioassay on Advance *Hirsutum* variety trial (AET-II) on Square, Flower & Bolls in laboratory condition at Nagpur

Name of entry	Mortality (%)			Mean
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	
CPDBt 2454	100.00	96.67	93.33	96.67
PKV 081 Bt (ZC Bt-2)	100.00	93.33	93.33	95.55
Suraj Bt (ZC Bt-1)	100.00	93.33	93.33	95.55
Local Check NBt	93.33	96.67	96.67	95.56
NH 615 (Zonal Check NBt)	20.00	16.67	23.33	20.00
NH 22067 Bt	100.00	96.67	100.00	98.89

Table.19 *Helicoverpa armigera* bioassay on Advance Hir. compact Variety trial (AET-I) on leaf in laboratory condition at Nagpur

Name of entry	Leaf Mortality (%)						Mean
	30 DAS	60 DAS	80 DAS	100 DAS	120 DAS	140 DAS	
CICR 24-13 Bt II	100.00	100.00	96.67	-	-	-	98.89
NH 1901 Bt (ZC Bt-3)	93.33	90.00	100.00	-	-	-	94.44
Suraj Bt (ZC Bt-1)	96.67	100.00	100.00	-	-	-	98.89
NH 615 (ZC Non-Bt)	16.67	20.00	20.00	-	-	-	18.89
NH 22003 Bt	100.00	100.00	100.00	-	-	-	100.00
PKV 081 Bt (ZC Bt-2)	96.67	96.67	100.00	-	-	-	97.78

Table.20 *Helicoverpa armigera* bioassay on Advance Hir. compact Variety trial (AET-I) on Square, Flower & Bolls in laboratory condition at Nagpur

Name of entry	Mortality (%)			Mean
	Squares(70 DAS)	Flowers(80 DAS)	Bolls(100 DAS)	
CICR 24-13 Bt II	100.00	93.33	96.67	96.67
NH 1901 Bt (ZC Bt-3)	100.00	96.67	93.33	96.67
Suraj Bt (ZC Bt-1)	100.00	93.33	96.67	96.67
NH 615 (ZC Non-Bt)	16.67	16.67	23.33	18.89
NH 22003 Bt	100.00	96.67	96.67	97.78
PKV 081 Bt (ZC Bt-2)	96.67	93.33	96.67	95.56





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