

Monitoring of BT cotton Fields in Gujarat

The Monitoring Committee comprising of Dr. C. D. Mayee, Director CICR, Nagpur, Dr. S. K. Lal and Dr. G. K. Gangani from Department of Agriculture, Govt. of Gujarat and R. P. Sharma, Expert Member, GEAC visited the Bt- as well as non Bt-cotton fields in and around Vadodara, Ahmedabad and Rajkot on October 7 and 8 , 2002.

The details about the farmers, area sown, insecticide sprays undertaken and the general impression of the farmers are indicated below. The monitoring team also looked into whether the company has been following the instruction of the GEAC relating to maintenance of databases on farmers growing the Bt-cotton and the steps taken to create awareness about the technology among the concerned officials, seed distributors and farmers. The pre and post seed sale activities undertaken by the company are annexed.

Visit on 07.10.2002

The team visited the following plots.

1. Village: Chorbhy
Farmer: Bhagwanji Khwand
MECH-162 Bt, Area 13 Acre - Sown 11/6 - Spray 4 + 2

The farmer has other hybrid Sandocot - Spray 4 + 8 = 12

Performance: Excellent, Boll bursting started and farmer started picking it.

As per GEAC guideline 5 rows of Non Bt were sown

Expected yield: 27 q/ha

2. Village: Touranda
Farmer: Bhupemdrabhai Bhatt
Area: 2 acre - Sown 28/6 - Spray 3 for sucking pest
Plot: Excellent
Expected yield: 25 q/ha
Followed the refuge perfectly

3. Village: Malsar
Farmer: Phuljibhai Patel
Area: 1 acre - Sown 26/6 - Spray 3 (2+1)
Refuge planted perfectly.
Expected yield 20-22 q/ha

4. Village: Waduj
Farmer: Nattubhai Patel
The refuge is as per guideline
Area: 4 acres
Expected Yield 30 q/ha

Visit on 08.10.2002

1st Plot

Grower: Balavirsingh, T. Jadeja

at Limbadi

Hybrid: MECH 184 - 16 pkg

MECH 162 - 02 pkg

Acre: 17

Sowing dated: 30.06.2002

Space: 3 x 3.1 ft.

Spray details

Bollgard 184

1st Spray 30 DAS

ACTARA + CUVACRON

2nd Spray 50 DAS

ENDOSALFAN + ACTARA

3rd Spray 75 DAS

MONOCROTOPHOSH + ACEPHATE

NBT - 184 & 162

1st Spray 15 DAS

ACTORA + NUVACRON + CYPERMETHRIN

2nd Spray 30 DAS

ACTORA + NUVACRON + a UNIALPHOS

3rd Spray 60 DAS

ENDOSALFAN + CYPERMETHRIN

4th Spray 75 DAS

MONOCROTOPHOSH + ACEPHATE

5th Spray 89 DAS

ACTARA + CYPERMETHERIN

2nd plot

Grower: Rayajbhai, Laxmibhai, Matakhiya

At Chotila DBT - Sinugar

Variety 162 - of pkg

Sowing 20.06.2002

Spacing: 6 x 2 ft.

Border line: 5,5,5,5 lines (Refuge)

Less No. of Boll setting in Border line

Total: of spray: 3 spray for Boll worm

4 spray for sucking pest

Found about 80 bolls / plants

In some field Non Bt. Commercial type Ajit - 11 were also planted. A total of 9 sprays were applied for control of boll worms and 30 % bolls were found damaged by boll worms.

Farmers Name: Girdhar Bhai, Timbada

At- Semala Village Tu - Gondal

Dist. Rajkot

Hybrid planted

Bollgard MECH - 12 of pkg

Bollgard MECH - 162 of pkg

Sowing date: 30.06.2002

Space: 6 x 3

Refuge border lines 5 in all four side planted by same Hybrid of Non-Bt. Total sprays of pesticides, 3 for sucking pest & 2 for boll worms.

For sucking

For boll worms

Confidor
Storthin + Mono
Kinador

Quinolphos
Cypermetherin + Quinolphos

Found about 60 - 70 Boll setting / plant

Big boll size in MECH-12 and medium boll size in MECH 162 was noted. In some fields very less no. of boll setting in refuge (Border) line and boll worm damage noticed.

4th Plot

Farmer: Vekuriabhai
At: Semoda Ta-Condal, District Rajkot

Very good plot, good vegetative & reproductive growth was observed. The farmer has planted 5 lines of Non BT surrounding Bollgard field for resistance management.

5th plot

Visited commercial Non Bt Plot of VICH-5 Hybrid (3 farmers field). Number of Boll setting was about 5-7 Bolls per plant. Farmers has applied a total of 15 sprays for control of Boll worms. In spite of this Boll worm was not controlled.

The General impression of monitoring team is:

1. All farmers followed the guidelines of refuge.
2. They say next year they may be allowed to plant the refuge only one or two side instead of all the four sides.
3. All the farmers have full appreciation for the technology.
4. For bollworm control - the farmers have used either one or two sprays on Bt-cotton based on ETL score against four to eight sprays for other general hybrid.
5. Bollworm incidence overall was low but on Bt-cotton it was still negligible.
6. All farmers were satisfied by the fact that they can pick up the cotton early. Boil burst in most cases sown on 11 to 15 June has commenced.
7. The team was satisfied by the work of the company. Department of Agriculture monitored the planting of Bt-cotton and supervised it.
8. Some farmers have conducted farmer's day and informed the team that other farmers visited the plot frequently.
9. Mr. Bhagwange (farmer) of Chorbhy said he has kept a complete record of expenditure and income and it will be worth to study it after all the crop is harvested.
10. The company has been following the instruction of the GEAC relating to maintenance of data bases, holding technology awareness programme for district officials, distributors and farmers.

**BT-cotton Post Release Activities Conducted by Mahyco Monsanto Biotech (I)
Limited with regard to Bollgard cotton**

1. Data base of 40,000 farmers developed.
2. Meeting of pre-sale. Pre-sowing Bollgard training to Farmers, No. of Training Session was 5000 across the country.
3. Training of Dealers, Distributors, Counter Sale boys and field assist about 707 persons.
4. Meeting of state Government officials to discuss Bollgard implementation strategy.
5. At the time of seed sale, package of practices in 8 multi Ingual leaf left was provided along with one cassette and one booklet on Bollgard.
6. Two Toll free telephone help line in each state have been provided.
7. Farmer's fields are being visited by field assistants at fortnightly interval.
8. Two mailers describing the precaution and various steps to be taken have been released and 3rd mailer is to be distributed soon.
9. Visits of local media in Madhya Pradesh, Maharashtra, Gujarat have been organized.
10. Visits of Government official, University Scientist is in progress and completed in Andhra Pradesh and Maharashtra.
11. 1300 Demo have been planed in Bollgard farmer's field. It is expected that about 300 farmers will visit each Demo plot.
12. Advertisement of mailer details in local news papers in vernacular language and Agri- Magazine has been published.