Success story of an IPM farmer Shri. Santhosh Kumar

Farmer Name: Shri. Santhosh Kumar
Village: Devanur
Block: Dharmasagar
District: Warangal
State: Telangana State

Fall Army Worm (Spodoptera frugiperda), recently invaded into our country and devastating the Maize crop in India. We can manage this pest effectively by following IPM approaches in early stages of the crop. The following case study of Shri. Santhosh Kumar proves this concept.

Shri. Santhosh Kumar raised kharif Maize crop in his 2 acres field in Devanur village of Warangal district. By the time CIPMC, Hyderabad officials visited his field the Maize crop was at 2 leaf stage and fully affected with Fall Army Worm. Each plant is infested with FAW eggs and adult moths also observed on the crop. CIPMC, Hyderabad officials suggested the Maize farmer to follow IPM approaches as given by DPQ&S starting from early vegetative stage. The Maize crop is very sensitive to FAW infestation up to 30 days from the Date of emergence of seedlings. We have suggested the farmer a 30 days schedule (week wise) which was given below.

1st Week (2 leaf stage): Early vegetative stage is very sensitive to FAW infestation. During this period we have suggested the farmer to monitor the field regularly and to collect the FAW egg massed followed by destroying them. We have suggested erecting pheromone traps @ 8 traps per acre to trap the male moths and also bird perched in the field. We also suggested application of Neem oil @ 1litre per acre to curtail the emergence of larvae from the FAW egg masses.

2nd Week: We have visited the same field after 7 days and observed the infestation of FAW came down as compared with previous week. This time also we have suggested to go for Neem oil spray @ 1litre per acre and released Trichogramma pretiosum (50,000/acre) which is a specific egg parasitoid against FAW.

3rd Week: By the time we visited the same field during the third week we have noticed the scanty number of early instar larvae in here and there in the field. This time we have suggested the spraying of Metarhizium anisopliae (Bio-Pesticide) @ 5g/litre which kills the larvae by fungal growth (Mycosis) on it. We suggested the maize farmer for application of Poison Bait (10 kg Rice bran+2 kg jaggery+100 g Thiadicarb) in that field. As we suggested all non-chemical-control methods for FAW management is helpful in conservation of Natural enemies like Chrysoperla canea (Egg-predator) in that field. This is also a reason to manage FAW effectively in that maize farmer field.

4th Week: We have observed matured FAW larvae when we visited the field on 21st day after seedling emergence. We have suggested the application of lime and red soil mixture into the whorls of the plant.
After 30 days when we have visited the same field, the crop was looking healthy and free from the infestation the FAW. There was no major damage observed. Now the crop is at harvesting stage and it was healthy. The farmer has followed all the IPM approaches suggested by CIPMC officials and get good results.

Dr. S.K. Malhotra, Commissioner of Agriculture, Govt. of India along with Shri. N. Satyanarayana, JD (PP) (IPM Division), DPPQ&S, visited this Maize field and appreciated efforts made by CIPMC, Hyderabad officials in guiding the farmer/motivating the farmer to follow IPM practices for management of FAW in Maize crop very effectively.