

MANGO FRUIT FLY

PHEROMONE-BASED IPM TECHNOLOGY FOR THE MANAGEMENT OF MANGO FRUIT FLY *BACTROCERA DORSALIS*

PROBLEMS/CONSTRAINTS

The fruit fly *Bactrocera dorsalis* is the most destructive insect pest of mango in India. The fruit loss in mango ranges from 5 to 80% was reported due to fruit flies and pests of quarantine importance. Management of fruit flies mainly involves extensive use of chemical insecticides, which lead to several problems associated with pesticide residues affecting human health and the environment. Lack of awareness among the farmers on the use of pheromone-based IPM Technology.



INTERVENTIONS

Farmer's participatory approach was adopted in managing mango fruit fly through pheromone-based IPM technology. Demonstrated and popularised pheromone-based IPM technology for managing mango fruit fly for two years during 2017-2019. Imparted hands-on training to the farmers on the preparation of methyl eugenol lures and traps. Field demonstrations and training covering approximately an area of 10 ha both in the North and South Goa district were conducted. Farmers were trained on pheromone traps, trap servicing, lure placement, replacement and identification of fruit flies etc. Besides, a total of 145 methyl eugenol lures and traps were distributed to 53 farmers.

Further other IPM practices like Phyto-sanitation, collection and destruction affected fruits were demonstrated to the farmers. NABARD funded this project. The weekly observation was recorded on the number of attracted fruit flies in the pheromone traps.



Training and demonstration on preparation of methyl eugenol lures and traps

IMPACT

Farmers were trained to preparation cue lure traps. The cumulative damage in the control plot was 30%, while the average fruit fly infestation was 10% in the pheromone implemented field. Loss in yield of 20 % was saved due to treatment. We have popularized the pheromone technology and created awareness among the farmers for the eco-friendly management of melon fly. Efficacy of cue lure pheromone traps in cucurbitaceous vegetables showed that maximum attraction of 120 fruit

flies/trap was recorded in the last week of July. The maximum attraction of melon flies was found during July and August. The average yield of cucumber is 27 t/ha, which due to infestation was reduced by 30%. Due to the recommended treatment the reduction in yield was reduced by 20%. Loss in yield that was saved due to treatment is 20% (5.4 t/ha), i.e. an estimated gain of Rs 37800 (@7000/t) with a cost of treatment Rs 4500/ha.



Distribution of methyl eugenol lures and traps

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