

## Mango Fruit Fly

Fruit flies are responsible for **20-40%** of loss in fruits and vegetables both in the field and post-harvest scenario. In some cases the damages are caused even up to 90-100%. Tephritid fruit flies are responsible for post-harvest losses in fresh fruits and vegetables. In addition they are also major impediments for export of fresh fruits and vegetables.

### **Important Characters:**

- Fruit flies are found in Temperate, Tropical and Sub-Tropical Regions of the world
- Polyphagous
- Multivoltine *i.e.* multiple generations per year
- Difficult to eradicate
- Economic losses
- Major constraint in International Market

### **Life Cycle:**

**Egg:** Laid below epidermis of fruits and vegetables (1-2 days)

**Grub:** Eat and damages the pulp inside fruit and vegetables (8-10 days)

**Pupa:** Pupates below soil at 10-15 cm (6-8 days)

**Adult:** Lives up to 45 days

### **Management:**

- **Cultural practices**
  - Collect fallen infested rotten fruits and also remove fruits with ovipunctures and oozing clear sap from the trees if visible.
  - Destroy these collected fruits by dumping in a pit (40-60 cm deep) and cover with soil to eliminate all sources of possible breeding sites.
  - Harvest fruits early when mature green. As this stage of fruit maturity, fruits are not susceptible to fruit fly attack.
  - Pick overripe fruits as these are good breeding sites for fruit flies.
  - Plough the topsoil (5-10 cm deep) to expose the pupae to predators, parasites, and direct sunlight.
  - Practice crop and field sanitation
- **Other Methods**
  - Methyl eugenol traps capture male flies. Set up methyl eugenol trap in the orchard @ 10/ac.
  - Prepare bait with methyl eugenol 1% solution mixed with malathion 0.1%. Take 10 ml of this mixture per trap and keep them in 10 different places in one hectare
  - Bait spray - combining any one of the insecticides (malathion 50 EC 2 ml/l or dimethoate 30 EC 1 ml/l) and protein hydrolysate or molasses or jaggery 10 g/l. Spray at 2 weeks interval before ripening of fruits.
  - Racking up of soil below the tree and drench with chlorpyrifos 20 EC @ 2.5 ml/l to kill the pupa.

### **Systematic Position**

Scientific Name: *Bactrocera* spp.

Family: Tephritidae

Order: Diptera

Class: Insecta

