

MAJOR PESTS OF MULBERRY & THEIR MANAGEMENT

Name: **Mealy bug** (*Maconellicoccus hirsutus*)

Period of Occurrence: **March – August**

Economic Threshold Level: **10 Nos/Shoot**

Yield Loss: **20-40%**

Symptoms

- Bunchy top appearance
- Curling & Wrinkling of leaves
- Leaves become dark green
- Turn pale yellowish & fall-off



Management Practices

- Collection & destruction of infested plant parts
- Spray 0.1% Dimethoate (30EC) @ 3ml/Litre water
- Safe Period: 15 days
- Release *Scymnus pallidicollis*, a native predator (Bio-Control) 1000 beetles/acre

Name: **Thrips** (*Pseudodendrothrips mori*)

Period of Occurrence: **March – June**

Economic Threshold Level: **20 Nos/Leaf**

Yield Loss: **20-40%**

Symptoms

- Scraped streaks & blotch appearance
- Boat shaped leaves
- Leaves with brown edges & curl upwards
- Leaves become brittle, crinkle & fall-off



Management Practices

- Sprinkler irrigation to dislodge young larvae
- Spray 0.1% Dimethoate (30EC) @ 3ml/Litre water
- Safe Period: 15 days
- Release of *Chrysoperla* Sp. (Bio-Control) @ 1000 eggs/acre

Name: **Whitefly** (*Dialeuroplora decempuncta*)

Period of Occurrence: **June - December**

Economic Threshold Level: **20 Nos/Leaf**

Yield Loss: **25%**

Symptoms

- Chlorosis & leaf curl
- Blue-mesh like appearance on ventral surface
- Leaf turns black due to sooty mould growth



Management Practices

- Installation of yellow sticky trap during June - November @ 60 Nos/acre
- Spray 0.015% Thiamethoxam (25 WG) @ 5g/10 Litre water
- Safe period: 15 days
- Release a native predator, *Brumoides suturalis* (Bio-Control) @ 500 pairs/acre

Name: **Bihar Hairy Caterpillar**

Period of Occurrence: **August - November**

Yield Loss: **25%**

Symptoms

- Exposed veins of leaf, which gives an appearance of net or web-like structure
- Affected leaves look dried & easily fall-off



Management Practices

- Collect pest-infested leaves during early stages & burn
- Collect & destroy infested leaves with Caterpillars by immersing in soap solution
- Install light trap (200W Mercury Vapour Lamp) to catch the adults

BIO-CONTROL AGENTS FOR MULBERRY PEST MANAGEMENT

Lady Bird Beetles **(*Scymnus pallidicollis*)** **for TUKRA MEALYBUG**

- Adults feed voraciously on all stages of mealy bugs & lays eggs in the midst of pest egg colony
- young predators upon hatching, eat on various stages of mealy bugs for 20 days
- Release 1000 adult beetles/acre/year in two splits at an interval of 6 months



Green Lacewing **(*Chrysoperla sp.*)** **for THRIPS**

- Chrysoperla larva feeds on eggs & all stages of thrips, pupates for 7days
- Chrysoperla adult emerges & feeds on pollen and nectar and lays eggs on leaves
- Young predators upon hatching, feeds on different stages of thrips for 8-10 days
- Release 1000 eggs/acre/year in two splits at weekly interval



BIO-CONTROL AGENTS are available at
CSRTI – Berhampore or Contact CSB-Field Units