

## Management of Mulberry Thrips (*Pseudodendrothrips mori*)

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Mulberry thrips (*Pseudodendrothrips mori*) are one of the most destructive sucking pests of mulberry, the sole food plant of the silkworm (*Bombyx mori* L.). The pest is widely distributed in major sericulture regions and causes serious damage, particularly during warm and dry seasons. Both nymphs and adults feed by scraping the leaf surface and sucking cell sap, leading to characteristic silvery streaks, leaf curling, bronzing and drying of tender leaves.

Infestation of mulberry thrips results in deterioration of leaf quality reduced photosynthetic activity and poor mulberry leaf yield. Since silkworm growth and silk production are directly dependent on the quality and quantity of mulberry leaves, thrips infestation indirectly affects larval health, cocoon yield and silk quality. Severe attack can render leaves unfit for silkworm feeding, thereby causing significant economic losses to sericulture farmers.

Effective management of mulberry thrips is therefore essential for sustaining mulberry productivity and ensuring healthy silkworm rearing. An integrated approach involving cultural, mechanical, biological and need-based chemical methods is recommended to manage thrips population in an eco-friendly and silkworm-safe manner.



Fig. 1. Mulberry Thrips Infestation



Fig. 2. Mulberry Thrips

Mulberry thrips suck sap from tender leaves and shoots, causing leaf curling, silvery streaks, bronzing, reduced leaf quality and yield, ultimately affecting silkworm growth.

### 1. Cultural Management

- Regular pruning of mulberry to remove infested shoots and leaves
- Clean cultivation: remove weeds and alternate host plants
- Optimum spacing and proper irrigation to avoid plant stress
- Avoid excess nitrogen fertilizers, which favor thrips multiplication
- Timely leaf harvest to prevent buildup of pest population

### 2. Mechanical & Physical Management

- Clipping and destruction of heavily infested leaves
- Blue sticky traps (10-12 per acre) to monitor and reduce adult thrips
- Water spray to dislodge nymphs and adults during early infestation

### 3. Biological Management (Eco-friendly & Recommended for Sericulture)

- Spray Neem oil 2-3 ml/L of water
- NSKE (Neem Seed Kernel Extract) 5%
- Azadirachtin 0.15% EC @ 1-2 ml/L
- Encourage natural enemies like lacewings (*Chrysoperla* spp.) and predatory mites

✓ Safe for silkworms when applied 10-15 days before leaf harvest

#### 4. Chemical Management (*Use only when infestation is severe*)

Apply only after leaf harvest and observe waiting period:

Insecticide	Dose
Dimethoate 30% EC	2 ml/L
Or Dinotefuran 20 SG%	0.25g/L

**Do not feed treated leaves to silkworms for at least 20 days (safe period)**

#### 5. Integrated Pest Management (IPM) Strategy

- Adopt clean cultivation + neem-based sprays
- Install sticky traps
- Apply chemical control only as last option
- Prefer biopesticides to protect silkworm health

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