

Jasmine Budworm, *Hendecasis duplifascialis* and its Management

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INTRODUCTION



Damage symptoms

- The larvae cause greatest injury to immature buds of *Jasminum sambac*.
- The larvae remain inside the bud or in flower cluster feeding on buds.
- It feeds on the inner most petals of the closed bud in the initial stages, emerged through a circular hole made on the tubular portion of the corolla for tunneling into the other buds in the same shoot and pupates in the soil.
- The larvae make tunnels of silk and excreta within an affected flower cluster, thus affecting the flower opening and flower buds may drop off and finally the flower buds changes into pinkish colour.

- In case of severe infestation, adjacent flower buds are webbed together by means of silken thread.

Bionomics

- Freshly laid eggs of bud worm are round and creamy white in colour which later turn yellow.
- Eggs are laid singly and glued on the unopened or immature buds, calyx and sometimes on the bud stalk. They hatch in about 3-4 days.
- The neonate larva is creamy yellow in colour with dark black head and prothoracic shield and passes through five instars.
- Pupation mostly takes place in the soil and sometimes on the leaves, at the junction of petioles and leaf blade.
- The adult is a small, pale white moth with wavy markings on wings and black patches on the wing margin. The moths have a pair of well-developed black palpi and scaly proboscis.

Host Plants

Jasminum cultivars

Management Measures:

- Regular field scouting for early diagnosis of infestation.
- The fallen dried flowers should be discarded away from field to avoid further infestation.
- Spray one of the following insecticides when infestation occurs:
 - Thiochlorid (Alanto) 240SC @ 1ml/litre
 - Spinosad (Tracer) @ 0.5 ml/lit
 - Profenophos 25EC @ 2 ml/lit
 - Lambda-cyhalothrin (Kungfu 2.5 EC) @ 20 g a.i/ha.
 - Monocrotophos @ 2 ml/lit
 - Chlorpyriphos 20 per cent EC @ 1.5 lit in 500 lit of water/ha
 - Neem seed kernel extract-5 percent
 - Neem oil – 3 percent
- Add one ml Teepol or Sandovit/litre
- Neem seed kernel extract or Neem oil can be repeatedly sprayed at fortnightly intervals.
- Avoid repeated application of same chemical.
- Conserve the natural parasitoid, *Phanerotoma hendecasiella* in jasmine ecosystem.