



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Cotesia species (287)

Relates to: **Biocontrol**



Photo 1. *Cotesia vestalis* inside its silken cocoon, close to the remains of a dead diamondback moth larva.



Photo 2. Adult, *Cotesia vestalis*.



Photo 3. Adult, *Cotesia vestalis*.

Summary

- Worldwide distribution. Common parasitising diamondback moth (DBM) in the hot lowland tropics and sub-tropics. Female lays 200 eggs, one in each young DBM caterpillars.
- *Cotesia* larvae eat DBM caterpillar from inside, emerges from the caterpillar and makes a cocoon on the brassica leaf. Look for white, oval pupa. The adult wasp (2-3.5 mm long) hatches after about 7 days and feeds on nectar.
- *Cotesia* cannot prevent damage by DBM alone. IPM programs avoid pyrethroids and organophosphates (these kill *Cotesia* and predators) and recommend use of Bt (*Bacillus thuringiensis*).
- Monitor and only use Bt when needed; rotate this with other insecticides to prevent resistance to Bt developing.

Common Name

Cotesia

Scientific Name

Cotesia vestalis; previously *Cotesia plutellae*. The wasp belongs to the family Braconidae.

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Information from Furlong MI, *et al.* (2013) Diamondback moth ecology and management: problems, progress and prospects. Annual Review of Entomology 58:517-541. Photos 1-3 Mike Furlong, University of Queensland, Brisbane.

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