



# BioAphidius

*Aphidius colemani*

Parasitic wasp for biological control of aphids



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**FUTURE**

# BioAphidius



*Aphidius colemani* is a parasitic wasp that controls several aphid species including the green peach aphid, and the cotton aphid. The parasitoid controls almost all developmental stages of the aphids.

Aphidius inserts a single egg into the body of its host (the aphid). The larva hatches from the egg and then feeds on the aphid's internal tissues. The aphid continues to develop until Aphidius reaches its third larval instar. By the fourth instar, Aphidius larva consumes most of the aphid's contents. It then cuts a slit in the underside of the aphid's body and spines a cocoon that attaches the dying aphid to the leaf. The parasitoid pupates within the cocoon while the aphid turns gradually into a hardened mummy. The adult Aphidius wasp emerges through a regular-shaped hole that it gnaws at the rear side of the mummy in between its two siphunculi tubules. The adult Aphidius female is able to lay up to 200 eggs during a lifetime of just a couple days.

## CROPS

Vegetables, strawberries, fruit trees, and ornamentals.



## THE PRODUCT

- Bottles containing 110, 220 and 550 mummies (= parasitoid pupae) mixed with sawdust from which 100, 200 and 500 adult wasps will emerge, respectively.
- The quantity is indicated on the label.
- A piece of honey soaked paper is adhered to the inner side of the lid of each package, to feed the emerging wasps prior to leaving the bottle.

## APPLICATION AND HANDLING

The open container should be hung on plant as close as possible to the aphids hot spot to allow the adult parasitoids to locate their hosts easily. The Aphidius adults will emerge from their pupae within a period of 1-7 days, depending on weather conditions and the age of the pupae upon release. Ten to twenty days after the release it is possible to assess the success level of the wasps' activity.

- *Aphidius* wasps are active in a temperature ranges of 68°F-86°F (20°C - 30°C). Below 60°F (15°C) as well as above 30°C adults exhibit poor activity.
- The BioAphidius product should be deployed into the crop as soon as it arrives.
- It is possible to store the BioAphidius product at temperatures between 43°F (6°C) and 46°F (8°C) for up to 48 hours from its arrival.
- Closed packages should never be exposed to direct sunlight.
- Ants should not be allowed to be present at the aphid hot spot as they interfere with Aphidius activity. They should be removed immediately.

The effective use of BioAphidius relies upon careful monitoring of aphids in the crop. It is possible and recommended to release Aphidius prophylactically, before signs of aphid infestation. Additional treatments can be undertaken if the aphids are noticed. The quantity and frequency of Aphidius release depends upon the crop and the degree of aphid infestation. Biological pest control continues throughout the growing season, as successive generations of *A. colemani* continue to control the aphids, providing a long-term solution.

## GENERAL COMMENTS

For combining BioAphidius with any chemical pesticide in the crop, consult your BioBee's technical advisory representative.