

# BioEncarsia

*Encarsia formosa*

BioEncarsia (*Encarsia formosa*) is a parasitic wasp of the Aphelinidae family.

## TARGET PESTS

BioEncarsia parasitizes the greenhouse whitefly (*Trialeurodes vaporariorum*) and to a lesser extent, the sweet-potato whitefly (*Bemisia tabaci*).



Greenhouse whitefly

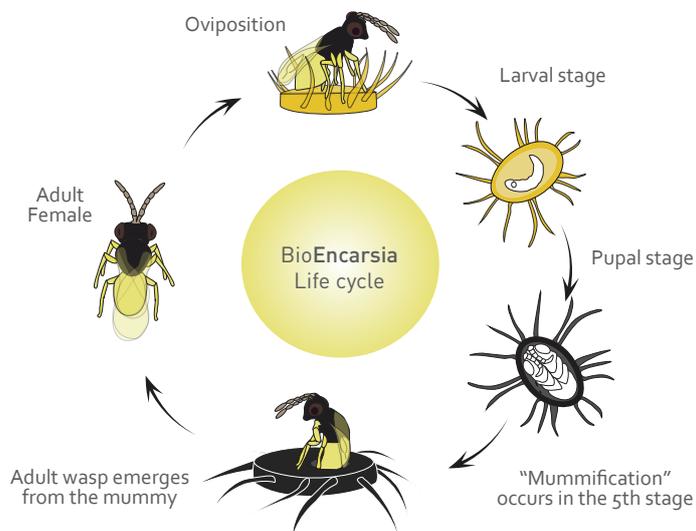


Sweet potato whitefly

## DESCRIPTION

Adult females have a black head, black thorax, and yellow abdomen. The adult female feeds on the whitefly nymphs of the first and second instars and parasitizes 3rd & 4th instars.

## LIFE CYCLE



The female wasp lays eggs inside the body of the whitefly nymph or pupa. Under optimal temperature conditions, the wasp's larvae develops through four instars in about two weeks. The parasitized whitefly pupae turn black.



Parasitized whitefly pupae

## CROPS

Vegetables, flowers, ornamentals and berries, chiefly in greenhouses.

## THE PRODUCT

- Bottle with 5,000 individuals BioEncarsia comes in "mummy" form mixed in a sawdust substrate.



- D-Boxes can be used for distribution in the field. Place the "mummies" in the D-Box and hang on a twig/foilage in the shade. When the wasps emerge, they will fly in search of the target pest.



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## MONITORING

Scouting and monitoring are essential.



## APPLICATION & HANDLING

- BioEncarsia is shipped in insulated, chilled boxes. Packaging must be kept intact until placed in the field.
- The parasitoid should be released as soon as it arrives on site.
- Leave the bottles inside the insulated shipping boxes until placement in the field.

## STORAGE

- Store a maximum of 24 hours after receipt.
- If the product cannot be released immediately, the containers must be stored in their original packaging, in a cool, dark place.
- Store horizontally.
- BioEncarsia prefers lower temperatures than 26°C.
- **Do not expose the bottles to direct sunlight.**

The amount and frequency of BioEncarsia release is determined by the degree of infestation, weather conditions and damage inflicted on the crop.



## BIOLOGICAL PEST CONTROL

The first signs of whitefly parasitizations can be observed 2 to 3 weeks following the wasp's release (depending upon temperature).

The subsequently established generations of BioEncarsia will effectively control the whiteflies in the long run.

Biological pest control continues throughout the growing season, as successive generations of *Encarsia formosa* continue to control the whiteflies, providing a long-term solution.

## GENERAL COMMENTS

Before combining BioEncarsia with any chemical pesticide in the crop, please consult your BioBee's technical advisory representative.

## DISCLAIMER

The success of biological pest control is affected by the crop's initial pest population (upon application of the product), weather conditions and chemical residue present in the crop, among other possible aggravating factors.