Product Information Sheet

Encarsia Formosa (Whitefly Parasite)

Target Pests

Encarsia formosa is an effective control agent for greenhouse whitefly and poinsettia whitefly.

Whitefly adult and larvae

Product Description

Encarsia is a tiny parasitic wasp, less than 0.6 mm long that only attacks whitefly larvae. It is effective at controlling greenhouse whitely, as well as the poinsettia whitefly. Correct identification of the whitefly is important, as Encarsia is less effective against some other whitefly such as Ash Whitefly.

An order of Encarsia contains approximately 500 Encarsia (small gardens) or 1000 Encarsia (large gardens). The product comes as 'cards' each containing 100 black parasitised whitefly scales.

The product works best with multiple releases, so the minimum order is for three releases delivered a fortnight apart (an order includes all three releases).

Encarsia laying eggs into whitefly larvae

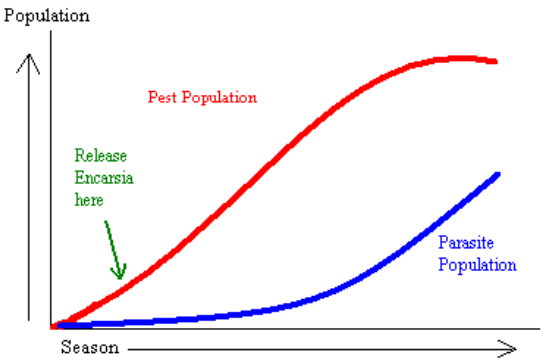
Encarsia larvae will hatch over a few days after cards are placed into the crop, and adults will seek out whitefly larvae and lays eggs into them. The Encarsia develop inside the whitefly larvae, which turns black as it is parasitised. In warmer weather development may take as little as 10 days, but up to 31 days in cooler weather.

Encarsia are best released when daytime temperatures are above 22°C, and night temperatures above 15°C.

Encarsia are delivered as parasitised whitefly on a card

How It Works!

Pests build up rapidly at the start of each new season, with predators & parasites not active until pests have reached damaging levels. This is demonstrated in the graph below.



Releasing high numbers of predators or parasites to coincide with this pest build up gives control before damage is evident.

Control will be most effective if beneficials are released before high pest levels occur.

Multiple Releases

For best results, it is recommended that 3 releases be made 10 to 14 days apart. Whitefly populations tend to be of mixed ages,

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and a single release is not effective for a long enough period to have adequate control.

Orders for Encarsia through Bug Central are for 3 releases.

Suitable Crops/Environments

Encarsia work very well on a range of crops including tomatoes, vegetables and a wide range of ornamentals. They can be released both outdoors as well as in greenhouses.

Encarsia work best when daytime temperatures are above 22°C and night temperatures are above 15°C. Development stops below 13°C. It is also preferable that relative humidity is not consistently above 75%. Whilst they are most active in warmer regions, they can tolerate a wide range of climates including greenhouses.

Encarsia are despatched from the 'insectary' ready for release. As a general rule, the cards can be kept for 2 to 3 days in a cool (but not cold) place prior to release.

Release Instructions

To release the Encarsia, simply place the cards within the plants. Release as close to the target pests as possible.

Cards should be left in place for at least 10 days after release. Ensure that packaging is opened in the vicinity of the target crop in case any Encarsia have hatched during transport. In IPM every bug counts!!

After Release

Detailed information is not available on the toxicity of all pesticides, but many will kill your Encarsia! Some fungicides will also cause disruption to natural enemies, and it is better to avoid products that do not specifically detail their effects on beneficials.

Products such as tomato dust often contain highly toxic insecticides like Carbaryl. Such products will kill all beneficial insects and are to be avoided completely.

Encarsia wasps are tiny, and it is unlikely you will be able to see these after release. The presence of black whitefly larvae is one indication the wasps are at work, but so is a lower level of whitefly infestation!

Encarsia & IPM

Integrated Pest Management (IPM) relies on a range of activities to manage pest levels. IPM does not aim to totally eliminate pests, as this is neither natural nor desirable. IPM seeks to achieve a balance between all organisms in the garden. A balance of pests and beneficial insects is the sign of a healthy garden.

Releasing good bugs helps maintain this balance. Using flowering plants that encourage good bugs is recommended.

If a pesticide does need to be applied due to a high level of pest activity, then select the product with the lowest toxicity possible.

Releasing predators and parasites after such an application is important, allowing time for the pesticide to dissipate, and to help restore the natural balance.

Green lacewings are also an effective control agent for whitefly, as well as a range of other pests such as aphids.

For further information on this or other products:

Visit www.bugcentral.com.au

Or email bugs@bugcentral.com.au

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