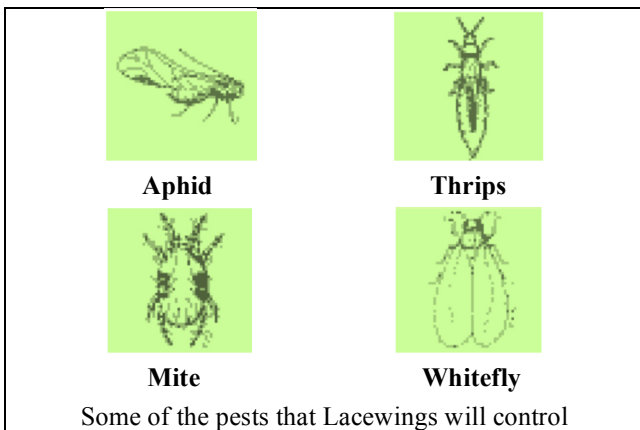


Product Information Sheet

Green Lacewings (*Mallada signata*)

Target Pests

Lacewings consume a wide range of common pests, such as aphids, mites, mealybug, whitefly, scale insects and some moth eggs and caterpillars. They are particularly effective against most aphids.



Lacewing larvae are capable of consuming hundreds of aphids each. 200 larvae should control of these pests in a 'typical' garden.

Larvae grow to 8 mm in around 12 days. They then pupate, with adults emerging after a further 9 days. Adults will begin laying eggs 7 days after emergence. Development takes around 4 weeks in warmer climates.

Adult females lay up to 600 eggs.



Lacewing larvae (Photo C.Freebairn)

Product Description

The Green Lacewing is a **native to Australia** and is found throughout all states. It is an effective predator of a range of insects commonly found in home gardens, especially aphids.

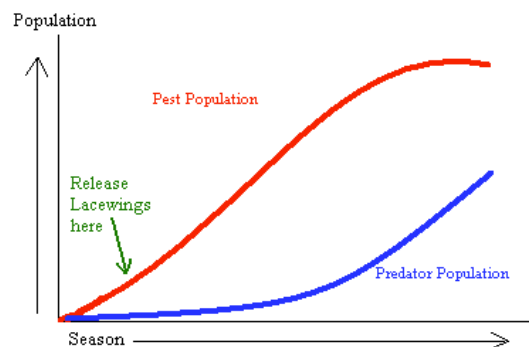


Adult Lacewing

An order of Lacewings from Bug Central contains approximately 200 larvae (immature stage), ready for release into the garden.

How It Works!

Pests generally 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 table 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 2 releases be made 10 to 14 days apart. The larvae are similar age when released, and go into the adult reproductive stage at the same time. During the adult stage, control activity is reduced and the introduction of more larvae will cover this period.

Multiple releases are more important if pest numbers are already high, or if release occurs later in the season. The earlier the release time compared to pest pressure, the more likely a single release will be effective.

Please indicate on the order form if multiple releases are required.

Suitable Crops/Environments

Green Lacewings are one of the most widespread, **native predators** in Australia. Whilst they are most active in warmer regions, they can tolerate a wide range of climates including greenhouses.

Lacewings, as with most predators and parasites, work best in gardens where a mixture of plants are growing. This ensures a range of insects will be available to sustain a population when pest numbers are low, and also provide alternative food sources such as nectar.

Lacewings are despatched from the insectary via Express Post. As a general rule, the punnets can be kept for 2 to 3 days in a cool (but not cold) place prior to release. Lacewings can be cannibalistic, so leaving them for too long will reduce the number of larvae. The packaging material keeps them separated, and food is supplied in the tubs to reduce this activity prior to normal release times.

Release Instructions

To release the lacewings, simply sprinkle the contents of the punnets evenly on the target plants. Each punnet can be spread over 10 or more small to medium sized plants. Release as close to the target pests as possible, as this will also further increase the likelihood of immediate control.

Ensure all material is removed from the punnet. In IPM every bug counts!!

For best results, release bugs in the afternoon or early evening as they are less active at night and will stay closer to the release site. Lacewings also feed on nectar, especially in the adult stage, so encouraging flowering plants in your garden is important for effective biological control of pests.

After Release

Detailed information is not available on the toxicity of all pesticides, but it is fair to say that many will kill your Lacewings! 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.

Larvae are well camouflaged and are difficult to find. They may be seen moving faster than the pests over leaves and plants.

Pupae are very well hidden, and will rarely be seen. The adults fly at night and are attracted to lights. Avoid leaving lights on which will attract Lacewings away from the garden!

Lacewings & IPM

Integrated Pest Management (IPM) relies on a range of activities to reduce pests. 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.

Releasing good bugs helps maintain this balance. Using plants that encourage beneficial insects is also 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.

For further information on this or other products:

Visit www.bugcentral.com.au

Or email questions@bugcentral.com.au

Bug Central
(Ag Dynamics Pty Ltd)
ABN 49 062 494 795

PO Box 329
Fullarton SA 5063
www.bugcentral.com.au