

Cryptolaemus Ladybird

Cryptolaemus montrouzieri

The **Cryptolaemus Ladybird** is a predatory ladybird. It is primarily a mealybug and scale predator, however it will also predate on a variety of alternative prey, including psyllids and aphids.



The **Cryptolaemus Ladybird** appears to survive and breed all year in New Zealand. Several generations will occur within one year.

In New Zealand we call them ladybirds, the same as the British do, however in other parts of the world they are known as ladybugs.

The Pest – Mealybugs

Many different species of mealybugs and scale are present in New Zealand, and not all species are necessarily suitable prey for the **Cryptolaemus Ladybird**. Some mealybug and scale species are quite specific to particular crops, while other species infest a wide range of crops.

Mealybugs are soft-bodied insects that have oval bodies with a waxy coating, males and females have separate lifecycles. Female adult body length is normally 2-3 mm. The mealybugs tend to live in sheltered locations such as pushing up against the veins of plants. During the summer all life stages are found on leaves and fruit, however when the weather becomes colder, they relocate to more sheltered places such as under bark where they continue to reproduce

Three to four generations of mealybugs will typically occur in one year, varying according to seasonal factors and locality.

Symptoms and signs of mealybugs include:

- Stunting and distortion of the leaves and flowers
- Yellowing and wilting of leaves
- Honey dew and sooty mould present on the plants
- Mealybugs visible on the stem, leaves and flower buds

Table of *Cryptolaemus* prey with host association index (0 to 10, where 10 is highly associated) from the Landcare Plant-SyNZ database (15 July 2017)



Larvae of *Cryptolaemus* have a mealy bug like appearance

Scientific Name	Common Name	Index
<i>Bactericera cockerelli</i>	Tomato potato psyllid	5
<i>Balanococcus diminutus</i>	New Zealand flax mealybug	10
<i>Coccus hesperidum</i> Linnaeus	Brown soft scale	10
<i>Coelostomidia zealandica</i>	Great giant scale	5
<i>Dysmicoccus ambiguus</i>		9
<i>Eriococcus araucariae</i> Maskell	Felted pine scale	10
<i>Eriococcus pallidus</i> Maskell	Karo felted scale	10
<i>Nipaecoccus aurilanatus</i>	Golden mealybug	10
<i>Paracoccus glaucus</i>	Long egg-sac mealybug	10
<i>Paraferria podocarpi</i>	Kahikatea mealybug	10
<i>Parasaissetia nigra</i>	Nigra scale	9
<i>Pseudococcus calceolariae</i>	Citrophilous mealybug	10
<i>Pseudococcus longispinus</i>	Long-tailed mealybug	10
<i>Pulvinaria mesembryanthemi</i>	Iceplant scale	10
<i>Saissetia oleae</i>	Black scale	10

The Solution – Cryptolaemus Ladybird

The **Cryptolaemus Ladybird** is a predatory ladybird of about 6mm in length, commonly recognised with the black body and red head.

Adults and larvae are mealybug and scale predators, feeding on all of the pest life stages.

The **Cryptolaemus Ladybird** undergoes an egg and larval stages before pupating and emerging as an adult. Development time from egg to adult takes around 40 days at 25°C, and longer at lower temperatures. Adults live for approximately 50 days and in this time lay up to 400 eggs.

Eggs are tiny and laid singly around areas of higher prey density.

Our ladybirds are reared in our insectary, we do not collect ladybirds from the wild (for sale) as is practised in other parts of the world.

Release and Storage Instructions

- Open tube to release *Cryptolaemus* in areas with high mealybug or pest numbers.
- Store in a cool place if need be, out of direct sunlight. Preferably between 8 and 15 degrees
- DO NOT REFRIGERATE