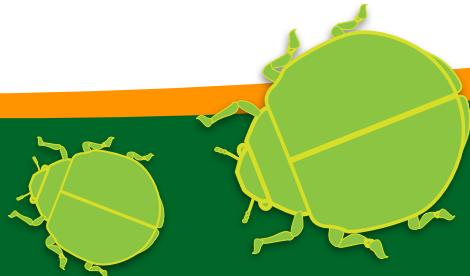


BUGS FOR BUGS



Bugs for Bugs Update

Spring 2016

Predators not pesticides: Dawn's strawberry success story

Hervey Bay strawberry grower Dawn Eccles-Simkins has employed an army of predators to fight pests in her crop, and she is thrilled with the results. With the help of Bugs for Bugs consultants Paul Jones and David Loxley, she has been able to reduced pesticide applications by 90% at her *Strawberries on South* farm.

"Paul and David have provided heaps of advice, they have been absolute life savers. Last year we had a lot of issues with mites and aphids, but with their help we have managed to put in place a really successful strategy. We have got better pest control now and we have a better eco-balance in the crop."

Dawn says that using predators instead of pesticides "just makes a lot more sense." She has young boys and she loves to see them go out to pick and eat the fresh berries, knowing they have not been sprayed.

Dawn uses predatory mites *Californicus*, *Montdorensis*, and *Persimilis* to combat western flower thrips and two spotted spider mite. She also releases lacewings to fight aphids, and uses the Bugs for Bugs Carpophilus Catcha Trapping System to control carpophilus beetles. According to Dawn, this strategy "works wonders."



LACEWINGS

aphid predator



CALIFORNICUS

two spotted mite predator



MONTDORENSIS

thrips and whitefly predator



PERSIMILIS

two spotted mite predator



Dawn's boys



A healthy crop at *Strawberries on South*

Agronomist Andrew Hennoste combats mealybug in apples with Cryptolaemus ladybirds

For apple growers in Stanthorpe mealybugs are the most difficult pests to manage. They tend to hide in sheltered places on the tree (e.g. the fruit calyx) and they are very difficult to control with insecticides. Crop damage results from contamination of fruit with honeydew and sooty mould.

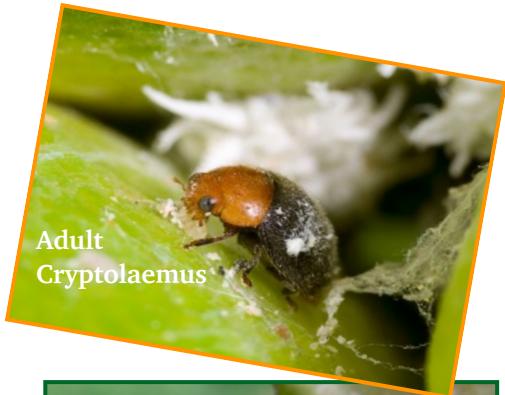
Last season Elders Stanthorpe manager Andrew Hennoste worked with several apple growers to trial Cryptolaemus ladybirds for mealybug control.

"Where we released Cryptolaemus we completely pulled back on insecticide

applications - we went in with only a single spray just before harvest, using a soft IPM product. We were able to save numerous sprays and in most orchards we achieved better results than we could get with the registered chemical products. We were very happy with this result."

Bugs for Bugs looks forward to working with Andrew and the growers in Stanthorpe again in the coming season. We hope we can continue to support them to produce top quality fruit with minimal insecticide applications.

Adult
Cryptolaemus



The image shows a man in a pink short-sleeved shirt and a dark baseball cap with a red Elders logo. He is looking closely at a small, partially eaten apple he is holding in his hands. The background is filled with apple trees heavily laden with red apples. In the bottom right corner of the main image area, there is a white inset box containing text and a product image.

Cryptolaemus ladybirds

- are voracious predators of mealybugs and soft scale
- are suitable for release in a wide range of crops
- larvae are best applied to treat hotspots
- a combination of adults and larvae can be released to ensure both rapid clean up of hotspots and optimal coverage and establishment across the crop

www.bugsforbugs.com.au



Delta trap

Monitoring pest presence and numbers can help growers and technicians make better pest management decisions. We currently supply pheromone lure products that can be used to monitor:

- Banana weevil borer
- Codling moth
- Heliothis
- Oriental fruit moth
- Queensland fruit fly

We are looking to expand our range of pheromone lures, so please let us know if there is a particular product you would like us to stock.

We are expanding our range of pheromone lure and trap products



Pheromone based products can also be used to control pests. The Bugs for Bugs Carpophilus Catcha Trapping System is an APVMA registered trap and lure package used to attract and kill three

species of Carpophilus beetle. This mass trapping approach does not harm beneficial insects and mites, making it an excellent IPM compatible alternative to disruptive cover sprays.

Bugs for Bugs consultant David Loxley has helped fruit growers across Australia achieve excellent Carpophilus beetle control using the Carpophilus Catcha Trapping System.

Be prepared for increased fruit fly activity in warm Spring weather

You can achieve excellent fruit fly control by combining several strategies in a systems approach. Bugs for Bugs and New South

Wales DPI recently collaborated to develop a simple step-by-step guide to managing Queensland fruit fly. The guide covers key elements of a systems approach, including protein bait sprays, male annihilation technique (MAT), monitoring and sanitation. You can access this resource online (see link below) or contact us to request a hardcopy.

We supply a comprehensive range of fruit fly management products, ideal for use in an integrated systems approach.



FRUIT FLY LURE

protein bait to attract and kill adult fruit flies



LURE THICKENER

use with fruit fly lure to improve bait longevity



MAT CUPS

reduce local population of adult male fruit flies



FRUIT FLY TRAPS

monitor fruit fly activity



Persimilis production at our Sunshine Coast facility



Bugs for Bugs Sunshine Coast facility
(Photo: Nathan Roy, Aerobugs)

Geoff Jaenke has been managing our Persimilis culture for over 5 years.

The production system involves growing bean plants in poly tunnels and infesting them with two-spotted spider mites. Once a healthy population of spider mites has been established Persimilis are introduced to feed on them and breed.

The Persimilis are then harvested and despatched to growers around Australia to help them manage spider mites in their crops.

Persimilis predatory mites

- feed on two-spotted spider mite and other spider mites
- provide excellent control in a wide range of protected and outdoor crops
- are most effective when introduced early

Two-spotted spider mites

- are a major pest of many crops
- produce white speckling on leaves as the first sign of damage
- often produce characteristic webbing on heavily infested plants
- have developed resistance to most miticides
- are best managed using biological control – monitor for early signs of damage and introduce predators as soon as mites are detected

Geoff Jaenke



Two-spotted spider mites and webbing on bean leaf

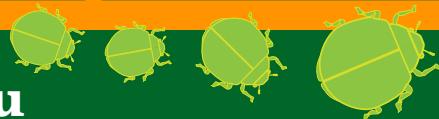


Persimilis adults and egg



We would love to hear from you

We are constantly trying to improve our products and services, and learn more about optimising the application of our biocontrols in the field. Please keep in touch and share your feedback with us. Contact us through our website or find us on Facebook.



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