

Orius for Thrips, Aphid and Spider Mite Control

Orius vicinus – Pirate Bug

Orius is a small predatory bug that predaes on a large variety of prey, including thrips, aphids, whiteflies, mites (incl. spider mites), psyllids and the eggs of larger insects such as butterflies and moths. **Orius** can also sustain itself on pollen.

Orius is closely related to several species that have been used with great success for the control of thrips, particularly in glasshouse grown capsicums. This species is a voracious predator in the laboratory, its use in the field however is still experimental.

The Pest – Thrips (Including Western Flower Thrips)

Thrips are small, slender insects with delicate wings fringed with hair. The wings are folded over the abdomen of the adults, while younger thrips are wingless and usually paler and more uniform in colour.

Thrips have piercing sucking mouth parts and feed by puncturing the surface of flowers and young leaves and sucking up the plant juices. Both adults and nymphs cause damage. Thrips are often concealed inside flowers making them difficult to see.

Signs and symptoms of thrips include:

- Distortion of young leaves and fruit
- Spotting on flowers
- Yellow speckled areas on leaves
- Silvered appearance of older leaves
- Black spots of thrips excrement on leaves
- Small insects in the flowers or on the undersides of young leaves in your crop.

The Solution – Orius

Orius is a predatory pirate bug, adults are 2 - 2.6mm in length.

Adults and juveniles are voracious predators, feeding on thrips of all life stages, from eggs to adults, although later stages of **Orius** catch and manipulate adult thrips more easily.

Orius are sold as voracious 2nd instar nymphs. Nymphal stages are wingless, meaning that they are unable to fly away, allowing them time to become

accustomed to your crop. Adults will seek out suitable host plants and prey, and may leave the crop if they find it unsuitable.

Orius will also feed on other insects and mites (such as spider mites) within the crop, and can sustain itself on pollen when available. **Orius** eats very little at temperatures below 16°C.

Orius undergoes an egg stage and 5 nymphal stages before becoming an adult. Development time from egg to adult takes 16-18 days at 25°C, and longer at lower temperatures.

Under favourable conditions, **Orius** can lay up to 400 eggs over the course of 10-70 days, depending on environmental conditions and the availability of food. Eggs are laid in floral peduncles (the stem of the flower) or on leaf veins, but this may depend on the host plant.

Release rates

- 1 **Orius** per m² as a **PREVENTIVE** action, released twice over a two week interval
- 10 **Orius** per m² for **CURATIVE** action, released in to areas of thrips infestation

Please seek the assistance of a crop scout or phone or email us directly for guidance. The advice above is indicative only and more specific advice may be beneficial.

Because thrips breed very quickly, while **Orius** doesn't, it is recommended that **Orius** is released at the first sign of thrips damage in a preventative manner, allowing **Orius** to establish and breed on the crop prior to thrips build up.

Orius is best suited to crops that are producing pollen as an alternative food source, and will establish more readily. Repeat applications of **Orius** may be necessary to establish them on crops without available pollen.

Orius is best suited to temperatures between 20°C and 30°C, and sustained temperatures over 30°C may reduce the effectiveness of this predator.

Release and Storage Instructions

- Release **Orius** as quickly as possible on to the crop
- Gentle rotate the tube to ensure an even mix of **Orius** within the buckwheat husk media
- Remove lid and sprinkle the media on to horizontal leaves, preferably so that it remains there, although **Orius** will move off the soil and on to the plant if necessary
- Apply evenly to the infested crop. If thrips are located in hotspots, concentrate the **Orius** release to those areas. Leave the tube in the crop to allow any remaining **Orius** to leave at their own pace.
- DO NOT REFRIGERATE
- If necessary, store Orius in a cool, dry place at 10-15⁰C if possible, out of direct sunlight before release.

Price

PRICE: \$35.00 per 500 Adults (minimum order) plus GST and Freight