

Montdorensis- thrips predator



Biocontrol organism *Transeius montdorensis*

The predatory mite Montdorensis - 'Monty' for short - is a native Australian mite. It is small and pear-shaped. Both male and female mites, as well as the two larval stages, are a pale creamy colour. However colour can vary depending on the food source being eaten. The eggs are clear and oval shaped. They are often laid on the hairs on the underside of leaves and around the calyx of flowers.

Montdorensis prefers temperatures in the mid to high twenties and high humidity. In these conditions the life cycle, egg to adult, takes about 6 days. One female will lay approximately 3 to 4 eggs per day for around 6 weeks. Prolonged periods of low humidity can slow egg laying and development. However suitable humidity can usually be easily maintained within the dense foliage of a crop. If necessary it can be increased by occasionally dampening down of floors and pathways around the plants.

Target pests

- Onion Thrips *Thrips tabaci*
- Tomato thrips *Frankliniella schultzei*
- Plague thrips *Thrips imaginis*
- Western flower thrips *Frankliniella occidentalis*
- Melon thrips *Thrips palmi*
- Greenhouse whitefly *Trialeurodes vaporariorum*

Montdorensis feeds on the larval stages of most thrips species including Onion thrips,

Plague thrips, Tomato thrips, Western flower thrips, and Melon thrips. It can also give some control of Cyclamen mite, Broad mite, Tomato russet mite and Twospotted mite. It is not an effective control of glasshouse thrips *Heliothrips haemorrhoidalis*. Montdorensis will feed on greenhouse whitefly.

Monitoring

Monitoring is a very important part of IPM. Checking your crop regularly is essential to identify and determine pest and predator activity in your crop. This can save you sprays!

Thrips levels

1. If thrips are already present in large numbers within your crop then the use of a compatible pesticide is recommended to reduce the population density before releasing Montdorensis. (See attached toxicity chart.)
2. Montdorensis only feeds on young thrips.
3. Early and regular introductions are the most effective control measure.
4. Yellow sticky traps can provide you with a good option for early detection of thrips within your crop.

When to release

- Check that the thrips population is low.
- Release the mites into your crop as soon as possible after arrival. They can be released at any time of day although morning or late afternoon is preferable. (Avoid very hot periods.)
- If the mites do need to be stored they can be kept at around 10 to 15°C for no more than 2 days. (Do not put in a cool room below 5°C.)
- DO NOT open the cardboard cylinder before actual release into the crop.
- DO NOT release when heavy rain, storms, or hail is forecast (outdoor crops only).
- DO NOT release if hazardous chemicals have been used. **Check the toxicity chart.**



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Recommended release rates

A general release rate of 10 to 20 mites per m² is recommended as soon as pests are sighted on yellow sticky traps. This rate should be increased if thrips numbers are high. Continued introductions of the predator throughout the life of the crop are recommended.

Cucumbers

Target pests Thrips & Broad Mite-----Rate 10/m²

Capsicums

Target pests Thrips & Tomato russet mite---Rate 10/m²

Chrysanthemums

Target pests Thrips & Broad mite-----Rate 10/m²

Gerbera

Target pests Thrips & Broad mite-----Rate 10/m²

Strawberries

Target pests Thrips & Cyclamen mite---10/m² or 2/plant

At release

Montdorensis are supplied mixed with vermiculite and a food source in a cardboard cylinder. Roll the container gently to distribute the mites evenly through the mixture. Remove the paper seal on one end cap. Pour the mix of mites and vermiculite directly onto the foliage of the plants to distribute uniformly throughout the crop over the area to be treated.

After release

Montdorensis only eat the young stages of thrips and do not feed on adults. Adult thrips can live for several weeks while laying eggs. Early introduction of the mites is recommended as control of an existing population of thrips can take up to 2 weeks. Continue monitoring your crop and repeat applications as necessary. We recommend Montdorensis mites be used in conjunction with the soil dwelling predatory mite *Hypoaspis*, that feeds on thrips pupae in the soil.

Chemical use

A separate fact sheet offers information about potential toxicity of a range of commonly used pesticides to the predator *Montdorensis*. It can be downloaded from our website.

Avoid those chemicals classified as highly hazardous.

If you need to use a moderately hazardous chemical use it once only and be aware that it may reduce your predator population. Monitor carefully for several weeks after using these chemicals to make sure there is enough predator activity to control pests.

Since this is a general guideline, you are required to check chemical registration, compatibility and phytotoxicity before spray application.

Excerpt from *The Good Bug Book*

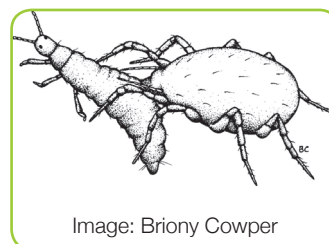


Image: Briony Cowper

