

Major Pests in Orchids

Insect Pests

- Two spotted mite.
- Scale Insects & Mealy Bugs.
- Aphids.
- Caterpillars.
- Thrips.

Two Spotted Mite



Two Spotted Mite

- *Tetranychus urticae* (Tetra-NIK-us ur-TY-see).
- Life cycle 7 – 12 days in summer & 12 – 21 days in winter eg. 14 days @ 21°C, 8 days @ 30°C.
- Female lays up to 6 eggs a day – 70> in total.
- Not an insect, related to ticks and spiders.
- Very small – 0.5mm female, easier to see damage done.
- Need to do regular checks for presence of mites.
- Prefer warm, dry conditions, 25°C – 30°C.

Problems Caused

- Feeding (suck chlorophyll from plants) in large numbers reduces plant vigor.
- Very heavy infestations on young or small plants results in severe damage – can take several growing seasons too recover.
- Spread transmissible plant diseases including viruses.

Controls

- Oil sprays such as Eco-oil 2.5mls/litre & Canola oil mix give good control. Use 2 – 3 times over 2 – 3 weeks.
- Natrasoap. Use same as above.
- Mineral oil sprays such as Pest-Oil or White Oil.
- Avoid spraying oil products on rising temp $>32^{\circ}\text{C}$.
- Predatory mites can be used – 2 types are required.
- Remove or relocate host plants such as beans, Taro, Azaleas and Nightshade.

Aphids



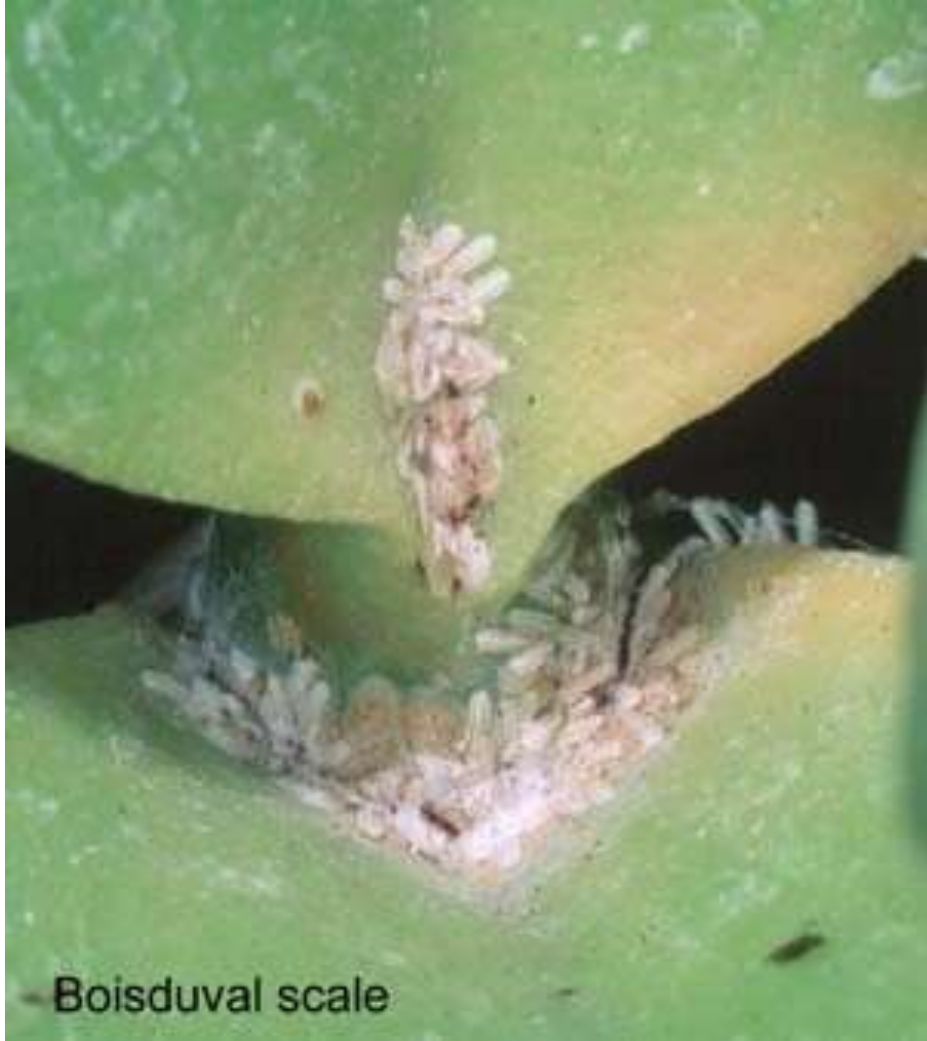
Problems Caused

- Sucking sap from new growth & soft tissue.
- Damage flowers and cause distortions.
- Possibly introduce viruses from infected plants (known vector for other plants eg. Cucumber mosaic virus).

Controls

- Control ants and aphids on host plants such as roses, citrus, onion, thistle, cabbage etc.
- Sticky insect strips (yellow) to detect presence of aphids.
- Chemical sprays such as Confidor and Pyrethrins provide safer control on flowering orchid. Confidor is systemic.
- Pyrethrins less toxic knock down spray.
- Use oil or soap based sprays such as Eco-oil 4mls/litre or Natrasoap/pyrethrums for other crops.

Scale Insects on Cattleya



Scale Insects on Cymbidium





Mealybug



Scale & Mealybugs

- Boisduval Scale – Sometimes mistaken for Mealy Bug because of white fluffy covering.
- Even infests Cattleya roots.
- Persistent and difficult to control.
- Easier to control the crawler stage when they are mobile – Spring and Autumn.
- Mealy bugs more mobile than scale.

Problems Caused

- Boisduval scale – severely damages and can even kill seedlings and small plants.
- Particularly debilitating to Cattleyas, taking many years to recover, if ever.
- Spreads rapidly if not controlled.
- Mealybug problematic for Cattleyas and Phalaenopsis and are also found on the plant roots below the surface of the potting mix.

Controls

- Space plants to allow good air circulation.
- Timely and regular use of Eco-oil and Natrasoap, difficult to use during flowering periods.
- Parasitoid wasps – good biological control for large collections and heavy infestations.
- Unfortunately systemic chemical sprays such as Rogor as a last resort for scale.
- Spray or dab Mealybug with alcohol.

Caterpillars and Loopers





Problems Caused

- Loopers only eat the best of your prized flowers.
- 6 spikes of flowers chew hole in 1 – 2 buds on each spike.
- Very mobile and can damage many flowers in a few nights – Particularly hairy caterpillars.
- Eat new growths on Native and Softcane Dendrobiums and Cattleyas.

Controls

- **Dipel** contains *Bacillus thuringiensis* or Bt for short. Stomach poison to caterpillars when ingested.
- Short lived needs to be sprayed regularly and over large areas of host plants.
- Not harmful to beneficial insects, birds and animals.
- Derris dust (rotenone – Associated with Parkinson's like Disease) Useful when ingested??
- Carbaryl wettable powder – Stomach and contact spray.

Thrips and Dendrobium Beetles



Western Flower Thrip



Problems Caused

- Dendrobium beetles and Thrips are both chewing insects.
- Thrips in orchids damage & distort soft foliage and distort and discolour flowers leaving white and brown streaks and young flower buds stop developing and drop off.
- Dendrobium Beetle adults chew soft tissue and flowers, lay eggs on flowers and into the stems of new growths.
- Dendrobium Beetle larvae when hatched eat flowers and eat the inside of new growths.



Controls

- Remove Dendrobium Beetles by hand.
- For heavy infestations spray with Confidor, Carbaryl or Rogor.
- Thrip sticky insect strips (light blue) for detection of the pest.
- For thrips use Eco-oil or Natrasoap on yard plants or Confidor on orchid plants. If flowers already damaged can use Rogor (dimethoate).

Slugs and Snails

- Molluscs - Snails - Common European and Garlic snails
- Slugs many varieties.



Problems Caused

- Chew flower buds but usually opened flowers.
- Leave a silvery trail over potting mix and flower parts.

Controls

- Judicious use of snail pellets both cheaper
Yates Blitzem – green pellet (Metaldehyde) Bayer Baysol – blue pellet (methiocarb) better in damp conditions.
- For large collections Mesurol 750 (methiocarb).