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# Papaya Mealy Bug Control Trial

First detected in the Northern Territory in July 2023, the papaya mealybug (*Paracoccus marginatus*) is a sucking pest, 2-3mm long, with a white mealy body-covering and yellow egg sacks. They infest pawpaw, frangipani, hibiscus, rosella, okra, salvia and many other plants. Symptoms include thick, white infestations (often mistaken for fungi), sooty mould, distorted foliage and loss of foliage colour.

*Original Mealy Bug infestation*

Control of papaya mealybug typically involves applying a plant-based oil spray (Multicrop EcoPest Oil Insect Spray or OCP EcoOil) each week for three weeks.

Gardeners can also make their own oil spray by mixing a concentrate of:
- ½ litre of kitchen oil (canola, sunflower etc.)
- ½ cup of dishwashing liquid.

This mix is diluted at the rate of 1 tablespoon per litre of water for spraying.

During late February/early March, I conducted a trial of EcoOil and a homemade Eucalyptus and Tea Tree oil mix on infested pawpaw trees at a local community farm.

**Recipe used**:
- 1 litre water
- 10ml Eucalyptus Oil (Bosistos)
- 2.5ml Tea Tree Oil (Benefix)
- 20ml (1 tablespoon) dishwashing liquid

This 1 litre concentrate was diluted to 250ml in 5 litres water (based on Multicrop EcoGrub which controls, but is not registered for use on papaya mealy bug). Please note that while Neem is an oil-based spray it cannot be used on edible crops including pawpaw.

*Results after treament once a week for 3 weeks*

One infected pawpaw (some distance away) was left untreated to monitor the presence of predatory lady beetles and their larvae, but none could be observed.

Limitations of the trial included, the nature of the site, height of the trees, onsite mulching practices and limited number of trees sprayed. However, the exercise provided some useful insights

Both EcoOil and the home-made Eucalyptus and Tea Tree Oil mix, controlled papaya mealybug equally effectively without burning, despite temperatures in the low 30°s during the trial.

**Recommendations:**
- Remove heavily infested/ deteriorating foliage
- Thin tightly packed fruit to facilitate complete spraying
- Dispose of infected leaves, fruit and mulch offsite.
- Spray plants thoroughly every week for three weeks.
- A commercial plant-based oil spray; homemade spray or Eucalyptus/Tea tree Oil spray (as detailed above), will work equally well.

Keep watch for the presence of predatory ladybeetles (*Cryptolaemus montrouzieri*) and wasp parasitoids (*Acerophagus papayae*) for biological control in the longer term.

*Damage from Mealy Bugs*

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