

# *Aconophora* on fiddlewood trees

*Aconophora compressa*



*Aconophora compressa*, a sap-sucking bug introduced in 1995 to control lantana, has developed a taste for a few common plants and trees in south-eastern Queensland and parts of New South Wales. It causes branch die-back and has defoliated fiddlewood trees.

Like other sap-sucking insects (e.g. aphids, psyllids, scales), *Aconophora* exudes large amounts of honeydew—a sugary solution in which black sooty moulds often grow. Honeydew can soil drying laundry, paths, patios and parked cars, and turn lawns yellow. Honeydew and sooty mould are easily washed off.

## Where has the bug spread?

*Aconophora* have been reported north to Pomona and Noosaville, west to Toowoomba, and south to Yamba in New South Wales. It has been found throughout Brisbane but, as temperatures rise, is mainly concentrated around the cooler bayside suburbs and Logan. The bug has also been reported on Atherton Tableland and Mt Fox near Ingham, and in Sydney at Avalon.

*Aconophora* is susceptible to summer heat. Populations decline when maximum temperatures exceed 37 °C, even for a few days, so it is unlikely to thrive in hotter inland districts.



## Which garden species are affected?

The bug is a type of treehopper that is primarily attracted to fiddlewoods, *Citharexylum spinosum*, and some cultivars of *Duranta erecta* (including Geisha Girl and Sheena's Gold). When insect numbers build up, the bug can move to these other species:

- *Eremophila* spp.
- *Jacaranda mimosifolia*
- *Clerodendrum ugandense* ('Blue Butterfly')
- *Myoporum* spp.
- *Pandorea* spp.
- *Avicennia marina* ssp. *australasica* (grey mangrove).

Biosecurity Queensland is investigating *Aconophora* behaviour on these species in the laboratory and in the field. Results show that *Aconophora* can complete its life cycle on fiddlewood, duranta, and jacaranda. Even though adults feed and lay eggs on other species, they are unlikely to complete their life cycle on them.

The bug has also been reported on grevillea, Ixora, hibiscus, jasmine, camellia and gardenia, but there is no evidence that it feeds on or damages these species.

## Why was *Aconophora* released?

Most of Australia's worst weeds were introduced as ornamental garden plants. The damage they cause and their control and eradication cost Australians over \$4 billion a year.

Biocontrol—importing a natural enemy to combat pests—has been very successful in controlling a range of introduced plants that are pests to agriculture, the environment, and human health. Biocontrol methods also reduce pesticide use.

In 1995 the biocontrol agent *Aconophora* was brought from Mexico to control *Lantana camara*—one of many garden escapees and now a Weed of National Significance. Huge infestations of lantana throughout much of eastern Australia are having a major impact on the environment, livestock health, and recreation. Pastoral losses caused by lantana cost Queensland an estimated \$7.7 million annually.

*Aconophora* has significantly damaged lantana in Queensland and parts of New South Wales. The bug does not attack the purple and white flowered *Lantana montevidensis*.

## What safety measures were taken?

The lantana sap-sucking bug was screened as a biocontrol agent from 1990 to 1994. It was tested on 62 plant species, including several genera in the same family as lantana. Fiddlewood was not included because several closely related species were tested.



*Duranta* varieties that now host the bug, such as Geisha Girl, were developed and marketed after *Aconophora* was released.

*Aconophora* was approved for release on the basis that it would complete its life cycle only on lantana and, to a lesser extent, duranta. Its release was unanimously supported by 22 state and federal agencies, including the Australian Quarantine and Inspection Service and Environment Australia. No agency, including those in other states where fiddlewoods grow, requested *Aconophora* testing on fiddlewoods.

## Which insecticides can be used?

Small shrubs and plants affected by *Aconophora compressa* can be treated with a range of systemic and contact insecticides registered for general use including:

- Yates Fruit Fly & Insect Killer
- Yates Garden Spray
- Natrasoap
- Folimat 50, Folimat Garden Insecticide
- Baythroid Garden Insect Spray
- Confidor
- Defender Bug-B-Gon
- Rogor
- Triumph Broad Spectrum Insecticide
- Lebaycid Insecticide Spray.

Pyrethrum-based sprays or a mix of equal parts of household detergent and vegetable oil (10 mL per 1 L of water) are good knockdown treatments for gardeners not wishing to use the insecticides listed above.

Householders should wait for evidence of actual damage by *Aconophora*, such as wilting of branch tips, before spraying because the bugs may be resting rather than feeding on plants.

It is best to seek advice from retail garden centres about treating small shrubs and plants, and to follow instructions on labels. Do not use household insecticides and surface sprays.

Sometimes treatments may seem ineffective because reinfestation has occurred. In these instances, continue treatment based on manufacturers' instructions.

## Control

### Herbicide control

Finding a suitable treatment for large trees is not a straightforward task. Nevertheless, scientists from Biosecurity Queensland and the Queensland Forestry Research Institute have completed research on insecticide treatments for *Aconophora compressa* on fiddlewood trees.

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has issued Biosecurity Queensland with a minor use permit for the products Confidor 200 SC, Confidor Concentrate Insecticides, or any other registered product containing 200 g/L imidacloprid, to be used as a soil drench or foliar spray to treat fiddlewoods.

Experienced gardeners with the proper equipment can apply the insecticide, but Biosecurity Queensland recommends consulting an arborist or tree surgeon for advice before treatment, and to follow all directions for use.

### Removing fiddlewoods

Fiddlewoods are fast-growing West Indian trees that were popular 20–30 years ago. Their aggressive roots damage pipes and underground cables, so they are no longer considered desirable.

The best long-term option for managing *Aconophora* numbers may be to replace fiddlewoods with suitable native trees; but before removing fiddlewoods, gardeners should get advice from a tree surgeon or arborist.

Some may be concerned about spreading the bug while taking infected branches and shrub cuttings to local refuse stations. There are no legal implications with transporting *Aconophora* but normal care should be taken, such as covering the load. Spray the load with insecticide as a further preventive measure, and clean garden tools.



### Is there any financial assistance?

The removal, lopping, or treatment of trees and garden shrubs is the householder's expense.

### Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland (call 13 25 23 or visit our website at [www.biosecurity.qld.gov.au](http://www.biosecurity.qld.gov.au)).

Fact sheets are available from Department of Employment, Economic Development and Innovation (DEEDI) service centres and our Business Information Centre (telephone 13 25 23). Check our website at [www.biosecurity.qld.gov.au](http://www.biosecurity.qld.gov.au) to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, DEEDI does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.