

# HAVE YOU SEEN THIS PLANT?



NSW Agriculture

## Weed Alert

### Miconia

*Also known as Velvet tree*

*A potentially devastating weed of Australian rainforests*



*Miconia tree showing leaf shape*

#### ■ WORLD STATUS

Miconia is a rainforest tree native to South America and can be found from Mexico to Brazil. Miconia is an attractive plant and a botanical curiosity. It has been cultivated in glasshouses in Europe since the 1850s.

It is recorded as a serious weed in Hawaii and French Polynesia, including Tahiti, where it has devastated the native flora and fauna. It is naturalised to a lesser extent in Sri Lanka and Jamaica. This weed ultimately poses a threat to all tropical and subtropical rainforests.

Miconia was introduced to a botanical garden in Tahiti in 1937. It is now common over 70% of the island and is described as the 'green cancer' of Tahiti. The plant has a similar history in Hawaii and is locally described as the 'purple plague'.

The introduction of Miconia into Australia as a garden ornamental was first recorded in Townsville in 1963. During the 1970s and 80s it became a popular ornamental foliage plant and was sold by several nurseries in Queensland and NSW. Naturalised populations are known to occur in far north Queensland and small infestations or backyard plants have been found at Tully, Innisvale and the Cairns region. In Queensland and Tasmania plants must be destroyed.

The climate throughout much of northern and eastern Australia is ideal for the plant and in April 2003, sixteen miconia plants were seized from a nursery on the far north coast of NSW. There are no other known infestations in NSW.

*RIGHT: The devastating miconia (Miconia spp.) grows as a small tree, up to 15 metres in height.*

#### ■ QUARANTINE

The importation of all miconia species into Australia is prohibited under Australian quarantine regulations.

#### ■ THE PROBLEM

Miconia is an unusually aggressive invader of moist rainforest habitats.

This weed has the potential to cause irreversible damage to rainforests. Under favourable conditions, miconia will form dense thickets in rainforest



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understoreys and can completely replace native vegetation. On Tahiti, half of the endemic plants are considered to be directly endangered due to miconia.

The weed has the ability to thrive in heavy shade as well as sunlight.

Mature miconia trees can flower and fruit three times a year producing up to 5 million seeds. Birds are the primary vectors for dispersal of miconia seeds, but small mammals are also a major contributor. Because the seeds stick to mud on shoes, clothing and machinery, humans also contribute to the spread of this noxious tree.

### ■ IDENTIFICATION

Miconia grows as a small tree, up to 15 metres tall.

Leaves are commonly 60 to 70cm long (with a maximum of 1 metre), dark green with three distinct parallel veins on the upper surface and distinctly purple-blue below. Young stems and leaves have velvety hairs.

Flowers are numerous, sweet-scented, white to pink in colour, and very short-lived (12 to 24 hours after opening).

Fruit is dark purple and about 1 cm in diameter. The fruit is sweet-tasting and very attractive to birds. Each fruit contains between 50 and 200 seeds.

Seeds are tiny, about 0.5 mm in diameter.

### ■ PROPOGATION

Flowering and fruiting begins after four to five years and can re-occur several times per year.

Germination requirements are varied. Most seeds remain dormant until stimulated by an opening in the canopy, although seeds will also germinate under heavy shade.

Seeds remain viable in the soil for 5 or more years.

Miconia are also known to spread vegetatively through layering and re-sprouting.

### ■ CONTROL

There are no herbicides currently registered in NSW for the control of miconia.

On larger trees, cut stump and frilling methods have been used successfully. In large infestations, removal of adult trees results in a massive germination from the soil seedbank.

Uprooting is effective on plants less than about 3 metres tall.

## Watch out for miconia

- All miconia (*Miconia* spp.) species are declared noxious throughout NSW as a W1 weed and must be continuously suppressed and destroyed.

If you find this weed in your area or see something that may be miconia, contact your Council Weeds Officer or NSW Agriculture immediately.



Plants produce fruit that is dark purple and about 1 cm in diameter. Each fruit contains between 50 and 200 seeds.

### References

Csurhes S.M. 1997, '*Miconia calvescens*, a potentially invasive plant in Australia's tropical and sub-tropical rainforests,' Proceedings of the first regional conference on Miconia control, August 26-29 1997, Tahiti, French Polynesia (pp 72-77). [www.hear.org/miconiainhawaii/](http://www.hear.org/miconiainhawaii/)

Meyer J. 1997, '*Epidemiology of the invasion by Miconia calvescens and reasons for a spectacular success*,' conference, Aug 1997, Tahiti (pp 4-26).

Tavares K. 1997, '*Big island melastome action committee: Miconia calvescens control program overview*,' conference, Aug 1997, Tahiti (pp 52-64).

NSW Agriculture State Weed Management Plan for Miconia, see [www.agric.nsw.gov.au](http://www.agric.nsw.gov.au)

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*Photos courtesy of Queensland Government, Department of Natural Resources and Mines.*