



Madeira vine

Anredera cordifolia



Flowering Madeira vine (Photo: Tony Cook)

- Also known as: lamb's tails
- This plant is a Weed of National Significance
- This plant must not be sold anywhere in NSW

Profile

How does this weed affect you?

Madeira vine is an invasive climber that is native to South America (Bolivia, Paraguay, Uruguay, Southern Brazil and Northern Argentina).

In Australia it has been used as an ornamental plant in gardens, but has become an invasive environmental weed, blanketing and smothering both shrubs and trees. The weight of the vine can cause smaller trees to collapse and die.

Where is it found?

Madeira vine is now widespread and common in coastal, summer-rainfall-dominant areas of NSW, including margins of rainforests. It has also spread to dryer inland areas, and its distribution is increasing.

How does it spread?

Madeira vine flowers in summer, and reproduces through the production of thousands of tubers (underground) and bulbils (aerially along the stems). The small light-brown or green potato-like bulbils fall to the ground as vines age. The tubers and the bulbils can remain viable for many years, making control very difficult.

What does it look like?

Madeira vine is a twining vine with wide, fleshy, heart-shaped leaves that are 2 to 15 cm long, and fragrant, cream-coloured flower spikes up to 30 cm long. These spikes resemble a lamb's tail, hence the alternate common name 'lamb's tail'.

What type of environment does it grow in?

Madeira vine thrives in sub-tropical and warm temperate areas. It is partly salt tolerant and has been observed growing over mangroves.

References

Madeira vine - Weed Management Guide (2011), Weed of National Significance, Queensland Department of Agriculture, Fisheries and Forestry.

Hanley, B (2012), Biological control of Madeira vine, Handout prepared for Primex 2012.

Control

Successful control of Madeira vine requires all the tubers and bulbils to be removed or killed. Control activities are long-term, and require regular follow-up for many years. Single control activities generally cause disturbance that results in vigorous regrowth and can lead to worse infestation levels unless dedicated follow-up occurs.

Biological control

The leaf feeding beetle, *Plectonycha correntina* has recently been approved for release in Australia. Both the adult and larval stages feed on the leaves reducing the plant's photosynthetic ability and depleting the energy stores in the bulbils and tubers.

Releases have occurred in New South Wales and Queensland—and at many of these sites the beetle has established and significant leaf feeding damage has been observed.

The beetles lay small yellow eggs in groups of 8-15 on the undersides of leaves. After 5 days, larvae emerge and start feeding, covering themselves with a sticky, black, gelatine-like substance. After 14 days, they begin to feed alone, leaving their slimy covering behind, and emerging as small white, then butter-yellow grubs (3-4 mm long) with black heads. They then burrow into the topsoil to pupate for another 20 days, and then emerge as adult beetles, able to reproduce 7 days later. Each female can lay an average of 550 eggs.

Beetles should only be used at sites that will not be subject to herbicide treatment or physical removal, and only in flood- and frost-free areas.

For more information about biocontrol for madeira vine contact your local council weeds officer.

Physical removal

Physical removal of Madeira vine is difficult because of the extent of underground tubers and aerial bulbils, but may be practical at smaller or immature infestation sites or as a follow-up measure to remove persistent tubers. Tubers, bulbils and vegetative material must be disposed of appropriately, as they will regrow if they are left in contact with the soil. Cut vines can remain 'alive' in the tree canopy for up to two years (surviving on energy from the aerial bulbils). Cutting and pulling the vines from the canopy should be avoided as

it results in a shower of viable bulbils. If this is necessary (where there is extreme stress on the host plant), tarpaulins should be laid on the ground to collect as many of the aerial bulbils as possible.

Chemical control

Herbicides can be effective and the main application techniques are scrape and paint and foliar spraying. Best results are achieved during the warmer months, however, Madeira vine grows year-round and a herbicide application during late winter may allow easier access and better control during the following spring and summer months.

Scrape and paint application

This is suitable for all plant sizes and provides the safest management option in sensitive environments. It is labour intensive as every vine stem must be treated individually. Scrape sections of the vine down to the white fibrous layer and immediately paint the exposed area with concentrated herbicide. Repeat the process as high up the stem as can be reached, and where possible, scrape both sides of the stem. Do not ringbark the stem as this will halt the spread of herbicide through the plant.

Foliar spraying

Traditionally, foliar spraying has been used to manage prostrate growth (growing along the ground) and seedlings once the primary stems have been treated using scrape and paint techniques. However, some practitioners now recommend the use of foliar spray as an initial treatment (followed by scrape and paint of remaining living stems), or as a standalone method of treating the plant. Handheld equipment (handgun and hose or knapsack) is useful to spot spray prostrate stems, seedlings and regrowth. Be aware that the herbicide may also kill the host vegetation where spray comes into contact with it.

Herbicide options

WARNING - ALWAYS READ THE LABEL

Users of agricultural or veterinary chemical products must always read the label and any permit, before using the product, and strictly comply with the directions on the label and the conditions of any permit. Users are not absolved from compliance with the directions on the label or the conditions of the permit by reason of any statement made or not made in this information. To view permits or product labels go to the Australian Pesticides and Veterinary Medicines Authority website www.apvma.gov.au

See Using herbicides (<http://www.dpi.nsw.gov.au/biosecurity/weeds/weed-control>) for more information.

PERMIT 9907 Expires 31/03/2025

Glyphosate 360 g/L (Roundup®)

Rate: Undiluted glyphosate

Comments: Stem scraping application.

Withholding period: Nil.

Herbicide group: M, Inhibitors of EPSP synthase

Resistance risk: Moderate

PERMIT 9907 Expires 31/03/2025

Glyphosate 360 g/L (Roundup®)

Rate: 100 mL glyphosate per 10 L of water

Comments: Spot spray for seedling control. Add a surfactant.

Withholding period: Nil.

Herbicide group: M, Inhibitors of EPSP synthase

Resistance risk: Moderate

PERMIT 9907 Expires 31/03/2025

Glyphosate 360 g/L with Metsulfuron-methyl 600 g/kg (Various products)

Rate: 200 mL glyphosate plus 1.5 g metsulfuron-methyl in 10 L of water

Comments: Spot spray for seedling control.

Withholding period: Nil.

Herbicide group: M, Inhibitors of EPSP synthase

Resistance risk: Moderate

PERMIT 13914 Expires 31/03/2026

Picloram 100 g/L + Triclopyr 300 g/L + Aminopyralid 8 g/L (Grazon Extra®)

Rate: 400 mL in 100 L of water

Comments: Handgun application

Withholding period: Where product is used to control woody weeds in pastures there is a restriction of 12 weeks for use of treated pastures for making hay and silage; using hay or other plant material for compost, mulch or mushroom substrate; or using animal waste from animals grazing on treated pastures for compost, mulching, or spreading on pasture/crops.

Herbicide group: I, Disruptors of plant cell growth (synthetic auxins)

Resistance risk: Moderate

PERMIT 13914 Expires 31/03/2026

Triclopyr 300 g/L + Picloram 100 g/L (Grazon® DS)

Rate: 400 mL in 100 L of water

Comments: Handgun application.

Withholding period: Nil.

Herbicide group: I, Disruptors of plant cell growth (synthetic auxins)

Resistance risk: Moderate

Fluroxypyr 200 g/L (Starane™)

Rate: 500 mL in 100 L of water

Comments: Apply at times of active growth. Avoid drift on to desirable plants.

Withholding period: 7 days.

Herbicide group: I, Disruptors of plant cell growth (synthetic auxins)

Resistance risk: Moderate

Fluroxypyr 333 g/L (Starane™ Advanced)

Rate: 300 mL in 100 L of water

Comments: Apply at times of active growth. Avoid drift on to desirable plants.

Withholding period: 7 days.

Herbicide group: I, Disruptors of plant cell growth (synthetic auxins)

Resistance risk: Moderate

Picloram 44.7 g/kg + Aminopyralid 4.47 g/L (Vigilant II ®)

Rate: Undiluted

Comments: Cut stump/stem injection application. Apply a 3–5 mm layer of gel for stems less than 20 mm. Apply 5 mm layer on stems above 20 mm .

Withholding period: Nil.

Herbicide group: I, Disruptors of plant cell growth (synthetic auxins)

Resistance risk: Moderate

Biosecurity duty

The content provided here is for information purposes only and is taken from the *Biosecurity Act 2015* and its subordinate legislation, and the Regional Strategic Weed Management Plans (published by each Local Land Services region in NSW). It describes the state and regional priorities for weeds in New South Wales, Australia.

Area	Duty
All of NSW	General Biosecurity Duty <i>All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.</i>
All of NSW	Prohibition on dealings <i>Must not be imported into the State or sold</i>

Area

North West

Land managers should mitigate the risk of new weeds being introduced to their land. Land managers reduce impacts from the plant on priority assets.

Duty

Regional Recommended Measure



Close up of Madeira vine tuber (Photo: Terry Inkson)



Madeira vine sprouting from tubers. (Photo: Tony Cook)



Madeira vine infestation (Photo: Tony Cook)



heart shape leaves of Madeira vine (Photo: John Hosking)



Madeira vine aerial tubers (Photo: Tony Cook)



Flowering Madeira vine (Photo: Terry Inkson)



The leaf-eating beetle is a biological control agent in Australia. (Photo: Courtesy Biodiversity Australia)



The Madeira vine leaf-eating beetle lays small yellow eggs on the undersides of leaves. (Photo: Courtesy Biodiversity Australia)



Madeira vine infestation (Photo: John Hosking)

Reviewed 2018