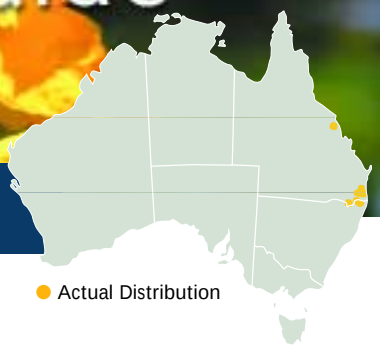
Weed Management Guide

Rosewood or tipuana tree – *Tipuana tipu*



Rosewood or tipuana tree (*Tipuana tipu*)

The problem

Rosewood is on the *Alert List for Environmental Weeds*, a list of 28 non-native plants that threaten biodiversity and cause other environmental damage. Although only in the early stages of establishment, these weeds have the potential to seriously degrade Australia's ecosystems.

Rosewood has been planted all over the world as an ornamental street tree and garden plant. It is also valued as a shade tree, a source of 'rosewood' timber and, in some circumstances, fodder for stock. In Australia it was originally planted in the 1970s in Queensland's suburban gardens and streets. It is popular in the Queensland pastoral industry for fattening stock during the winter period, and for its shade value.

Rosewood is drought resistant, and frost and salt tolerant. These characteristics, in addition to its ability to produce many seeds and achieve high germination rates, make rosewood a serious threat to native plants. The concentrated presence of rosewood plants along a watercourse in Queensland has caused problems by clogging drains with their leaves and seeds, resulting in flooding.

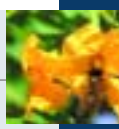
The weed

Rosewood is a tree growing up to 10 m in height in Australia, with a main trunk and branches forming a distinct elevated crown. It has a large canopy cover, often greater than its height, and is consequently favoured as a shade tree. It has reddish-brown fissured bark, and opposite leaves along the leaf stalk. Leaves are approximately 30–50 mm long by 12–20 mm wide, with 'buttock-shaped' tips. The bright yellow flowers (up to 22 mm in diameter) occur in leaf-less racemes (an inflorescence of stalked flowers with the youngest at the top). The distinctive winged fruit is sometimes referred to as a 'helicopter', due to its spinning propeller-like action as it falls. The spin is created by the swollen base, which contains one to three seeds. Depending on the wind velocity and distance above the ground, rosewood seeds can be carried considerable distances away from the parent plant.

Rosewood has been planted all over the world as an ornamental street tree and garden plant.
Photo: Sheldon Navie, University of Queensland

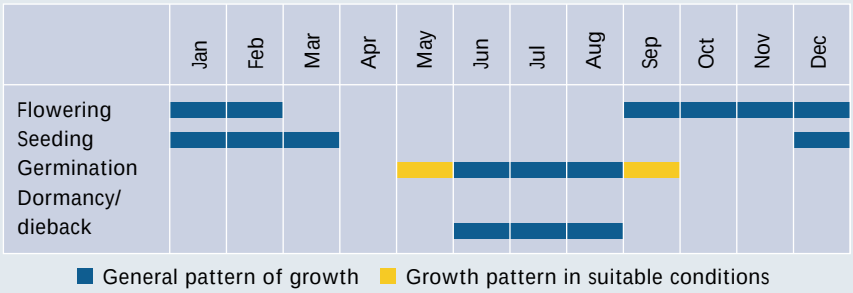
Key points

- Planted for its ornamental, shade and cattle fodder value in Australia, rosewood has become a threat by escaping street and garden plantings into the natural environment.
- It is drought resistant and frost tolerant, and grows in most conditions, allowing it to invade native vegetation.
- It seeds and germinates prolifically. Preventing its spread will protect both natural and other areas.
- Any new outbreaks of rosewood should be reported to local councils or state or territory weed management agencies. Do not attempt control on your own.



Natural Heritage Trust
Helping Communities Helping Australia
An Australian Government Initiative

Growth calendar



Rosewood flowers over the spring–summer period, and goes to seed in summer and early autumn. Germination is highest in winter, when ample water is available. The plant can be fully or semi-deciduous in the winter period, depending on water availability and temperature.

How it spreads

The single greatest reason for rosewood's spread is the propagation and planting of the tree by householders and pastoralists. The flower of the rosewood is pollinated by bees. Following this, its prolific seeding capability (up to 10,000 seeds per plant), coupled with wind and water dispersal mechanisms (when near waterways), allows it to establish widely. The winged seed may travel a substantial distance from the tree with its helicopter style movement, and the decomposed seed then spirals down into the ground to become established. In pastoral areas cattle will eat new growth and thus kill rosewood seedlings. It is not known if passage through the cattle gut assists germination, as it does in other species. The fast growth of the seedling allows it to establish quickly, up to 4 m in its first two years of growth. Rosewood does not spread vegetatively.

Where it grows

Rosewood, sometimes referred to as tipuana tree or racehorse tree, is native to southern Bolivia, northern Argentina, southern Brazil, Uruguay and Paraguay.

In its native range in South America the plant grows in a subtropical environment, with generally warm temperatures year round. However, rosewood grows well in most conditions, hence its naturalisation and cultivation throughout Australia and many other parts of the world, for example the United States and Africa.

The flowers of rosewood are pollinated by bees.
Photo: Noel Richards

Rosewood will survive in temperatures down to minus 6.5ºC, and is well able to resist frost conditions. It grows in nearly all Australian states but has become invasive in northeastern New South Wales and many regions of Queensland, particularly Brisbane, south-eastern Queensland and further north to Rockhampton. It invades disturbed sites such as roadsides and creekbanks, and also grows in woodland and open grassland areas where grazing is absent.

Rosewood grows well in most conditions and has been widely planted by pastoralists and householders

Why we need to be 'alert' to rosewood

Rosewood is reported as being invasive, noxious and naturalised in South Africa. With similar climate and soils to South Africa, Australia needs to be concerned with the potential of the tree to become an even more widespread weed than it

Rosewood has reddish-brown fissured bark.
Photo: Noel Richards

The Alert List for Environmental Weeds

The Federal Government's *Alert List for Environmental Weeds* was declared in 2001. It consists of 28 weed species that currently have limited distributions but potentially could cause significant damage. The following weed species are therefore targeted for eradication:

Scientific name	Common name	Scientific name	Common name
Acacia catechu var. *sundra*	cutch tree	*Koelreuteria elegans* ssp. *formosana*	Chinese rain tree
Acacia karroo	Karroo thorn	*Lachenalia reflexa*	yellow soldier
Asystasia gangetica ssp. *micrantha*	Chinese violet	*Lagarosiphon major*	lagarosiphon
Barleria prionitis	barleria	*Nassella charruana*	lobed needle grass
Bassia scoparia	kochia	*Nassella hyalina*	cane needle grass
Calluna vulgaris	heather	*Pelargonium alchemilloides*	garden geranium
Chromolaena odorata	Siam weed	*Pereskia aculeata*	leaf cactus
Cynoglossum creticum	blue hound's tongue	*Piptochaetium montevidense*	Uruguayan rice grass
Cyperus teneristolon	cyperus	*Praxelis clematidea*	praxelis
Cytisus multiflorus	white Spanish broom	*Retama raetam*	white weeping broom
Dittrichia viscosa	false yellowhead	*Senecio glastifolius*	holly leaved senecio
Equisetum spp.	horsetail species	*Thunbergia laurifolia*	laurel clock vine
Gymnocoronis spilanthoides	Senegal tea plant	*Tipuana tipu*	rosewood
Hieracium aurantiacum	orange hawkweed	*Trianoptiles solitaria*	subterranean Cape sedge

Weed control contacts

State / Territory	Department	Phone	Email	Website
ACT	Environment ACT	(02) 6207 9777	EnvironmentACT@act.gov.au	www.environment.act.gov.au
NSW	NSW Agriculture	1800 680 244	weeds@agric.nsw.gov.au	www.agric.nsw.gov.au
NT	Dept of Infrastructure, Planning and Environment	(08) 8999 5511	weedinfo.ipe@nt.gov.au	www.nt.gov.au
Qld	Dept of Natural Resources and Mines	(07) 3896 3111	enquiries@nrm.qld.gov.au	www.nrm.qld.gov.au
SA	Dept of Water, Land and Biodiversity Conservation	(08) 8303 9500	apc@saugov.sa.gov.au	www.dwlbc.sa.gov.au
Tas	Dept of Primary Industries, Water and Environment	1300 368 550	Weeds.Enquiries@dpiwe.tas.gov.au	www.dpiwe.tas.gov.au
Vic	Dept of Primary Industries/Dept of Sustainability and Environment	136 186	customer.service@dpi.vic.gov.au	www.dpi.vic.gov.au www.dse.vic.gov.au
WA	Dept of Agriculture	(08) 9368 3333	enquiries@agric.wa.gov.au	www.agric.wa.gov.au

The above contacts can offer advice on weed control in your state or territory. If using herbicides always read the label and follow instructions carefully. Particular care should be taken when using herbicides near waterways because rainfall running off the land into waterways can carry herbicides with it. Permits from state or territory Environment Protection Authorities may be required if herbicides are to be sprayed on riverbanks.

is currently. Its ability to spread rapidly into woodlands, firebreaks, tracks, roadsides and other open areas has the potential to affect fire regimes and natural ecosystems.

The bright yellow flowers of rosewood occur in leafless racemes (an inflorescence of stalked flowers with the youngest at the top).
Photo: Sheldon Navie, University of Queensland

What to do about it

Prevention is better than the cure

As with all weed management, prevention is better and more cost-effective than control. The annual cost of weeds to agriculture in Australia, in terms of decreased productivity and management costs, is conservatively estimated at $4 billion. Environmental impacts are also significant and lead to a loss of biodiversity. To limit escalation of these impacts, it is vital to prevent further introduction of new weed species, such as rosewood, into natural ecosystems.

Rosewood can rapidly invade woodlands, firebreaks, tracks, roadsides and has the potential to affect fire regimes

Early detection and eradication are also important to prevent infestations of rosewood. Small infestations can be easily eradicated if they are detected early but an ongoing commitment is needed to ensure new infestations do not establish.

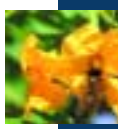
Quarantine to prevent further introductions

Quarantine laws require that before the Australian Quarantine and Inspection Service (AQIS) could consider applications to import rosewood, a comprehensive weed risk assessment would need to be conducted by Plant Biosecurity Australia. Considering its potential impacts on the environment, it is unlikely that permission to import this plant would be granted.

Do not buy seeds via the internet or from mail order catalogues unless you check with quarantine first and can be sure that they are free of weeds like rosewood. Call 1800 803 006 or see the AQIS import conditions database <www.aqis.gov.au/icon>. Also, take care when travelling overseas that you do not choose souvenirs made from or containing seeds, or bring back seeds attached to hiking or camping equipment. Report any breaches of quarantine you see to AQIS.

Raising community awareness

Some 65% of weeds which have recently established in Australia, including



rosewood, have escaped from plantings in gardens and parks. The detrimental impacts of these weeds far outweigh any potential horticultural benefits. The public should be made more aware of these impacts, and of other issues such as how to identify rosewood and what to do if they find it.

Distinguishing features of rosewood are its oval-shaped leaves with the 'buttock-shaped' tip, yellow flowers with larger outer petals and smaller inner petals, and a leaf stalk approximately 15–20 mm long.

New infestations of rosewood

While rosewood has naturalised in many areas, infestations are still at manageable levels. Any new outbreaks should be reported immediately to your state or territory weed management agency or local council. Do not try to control rosewood without their expert assistance. Control effort that is poorly performed or not followed up can actually help spread the weed and worsen the problem.

Legislation

There is no legislation to control rosewood but it is on the Federal Government's *Alert List for Environmental Weeds*, meaning that it is marked for eradication and should not be imported into Australia or used as a street or garden plant. Rosewood has been declared an environmental weed in some shires within Queensland.

Acknowledgments

Information and guide revision: Trevor Armstrong (Qld DNRM), Sandy Robertson (Gatton Shire Council, Qld), Rachel McFadyen (Weeds CRC), Shane Campbell (Qld DNRM / Weeds CRC).

Map: Base data used in the compilation of distribution map provided by Australian herbaria via Australia's Virtual Herbarium.

The distinctive winged fruit is sometimes referred to as a 'helicopter', due to its spinning propeller-like action as it falls. The spin is created by the swollen base, which contains one to three seeds.
Photo: Sheldon Navie, University of Queensland

The tips of rosewood leaves are characteristically 'buttock-shaped'.
Photo: Noel Richards

If you find a plant that may be rosewood

Quick reference guide

Rosewood or tipuana tree – *Tipuana tipu*

Identification

If you suspect you have found rosewood, you will first need to confirm its identity. Contact your state or territory weed management agency for help. You will need to take note of the characteristics of the plant in order to accurately describe it. Some important features of rosewood are:

- oval-shaped leaves, the tip being 'buttock-shaped'
- yellow flowers approximately 22 mm long, with a larger outer petal and smaller inner petals – not dissimilar to an orchid
- a leaf stalk approximately 15–20 mm long.

Reporting occurrences

Once identified, new occurrences of rosewood should be reported to the relevant state or territory weed management agency or local council, which will offer advice and assistance on its control. Because rosewood spreads so quickly, its control should be undertaken with the appropriate expertise and adequate resources.

Follow-up work will be required

Once the initial infestation is controlled, follow-up monitoring and control will be required to ensure that reinfestation does not occur.

Collecting specimens

State or territory herbaria can also identify plants from good specimens. These organisations can provide advice on how to collect and preserve specimens.

State/Territory	Postal Address	Phone	Web
Australian National Herbarium	GPO Box 1600 Canberra, ACT, 2601	(02) 6246 5108	www.anbg.gov.au/cpbr/herbarium/index.html
National Herbarium of New South Wales	Mrs Macquaries Rd Sydney, NSW, 2000	(02) 9231 8111	www.rbgsyd.nsw.gov.au
National Herbarium of Victoria	Private Bag 2000 Birdwood Avenue South Yarra, Vic, 3141	(03) 9252 2300	www.rbg.vic.gov.au/biodiversity/herbarium.html
Northern Territory Herbarium	PO Box 496 Palmerston, NT, 0831	(08) 8999 4516	http://www.nt.gov.au/ipe/pwcnt/
Queensland Herbarium	c/- Brisbane Botanic Gardens Mt Coot-tha Rd Toowong, Qld, 4066	(07) 3896 9326	www.env.qld.gov.au/environment/science/herbarium
South Australian Plant Biodiversity Centre	PO Box 2732 Kent Town, SA, 5071	(08) 8222 9311	www.flora.sa.gov.au/index.html
Tasmanian Herbarium	Private Bag 4 Hobart, Tas, 7000	(03) 6226 2635	www.tmag.tas.gov.au/Herbarium/Herbarium2.htm
Western Australian Herbarium	Locked Bag 104 Bentley DC, WA, 6983	(08) 9334 0500	http://science.calm.wa.gov.au/herbarium/

Printed on 100% recycled paper.

ISBN 1-920932-46-1

CRC Weed management