

Captain Cook tree

Yellow oleander

Cascabella thevetia (previously *Thevetia peruviana*)



Captain Cook tree (also known as yellow oleander) is native to tropical South America and the West Indies, and has often been planted as an ornamental tree in domestic gardens and amenity situations. When older, the trees are capable of producing large amounts of seed. All parts of the plant are poisonous, especially the seeds that can be fatal if ingested. Captain Cook tree has become a highly invasive weed in parts of Queensland, especially along creek systems. If left uncontrolled, Captain Cook tree can threaten sustainable pasture production and the environment. This has been evident in established infestations near Mingela and Ingham. Eradication of isolated trees can prevent this situation occurring elsewhere.

Declaration details

Captain Cook tree is a declared Class 3 plant under the *Land Protection (Pest and Stock Route Management) Act 2002*. The Act prohibits the supply or sale of Class 3 plants and may require their removal from environmentally significant areas.

Description and general information

Captain Cook tree is a large, attractive tree that can grow up to 10 m high. It has a milky sap and is easily recognised by its narrow, pointed leaves and bell-shaped, waxy flowers. Flowers are up to 5 cm in diameter, slightly fragrant, short lived and may be yellow or peach coloured. Fruit are green (turning black when ripe), lantern shaped, 2.5–4 cm in diameter and contain 1-2 seeds.



Queensland Government

Control

Management strategies

The best form of weed control is prevention. Always treat weed infestations when small—do not allow weeds to establish. Weed control is not cheap, but the cost will escalate if management is delayed. Proper planning ensures greater value for each dollar spent.

Effective control of Captain Cook tree can be achieved through a combination of mechanical and herbicide treatments or by herbicide treatment alone. Choose control methods to suit your particular situation. All treated areas must be periodically checked and any regrowth treated, or the initial treatment efforts will be wasted. Follow-up must be undertaken to ensure a successful control program.

Small individual plants may be manually removed, taking care to remove the roots. This option is not feasible for larger specimens.

Mechanical control

Isolated individuals can be grubbed out with a blade, either front- or rear-mounted to a dozer or tractor. Dense infestations can initially be cleared with a cutterbar (if the terrain and soil type permit). Remaining broken and exposed stems should be treated with basal bark spray as

soon as possible following clearing. In order to ensure a successful control program, regrowth must be sprayed.

Fire

Fire will cause some damage to the plant, but regrowth is normally rapid and few plants are killed. Seedlings may be more susceptible to fire but the survival of mature plants means the problem will persist.

Herbicide control

Selection of a suitable method depends on the size of the target tree and the situation. Use of a wetting agent may increase the efficacy of herbicides. Herbicides work best when plants are actively growing. Some herbicide treatments may take more than a year to kill Captain Cook tree.

Herbicides approved for the control of Captain Cook tree are listed in Table 1 (on the back of this fact sheet). Always read the label carefully before using any herbicide. All herbicides must be applied strictly in accordance with the directions on the label.

Foliar spray

For effective foliar control, spray the whole plant thoroughly to the point of run-off, wetting every leaf during a time when the plant is actively growing. This will vary depending on the location but is generally during spring



An infestation of Captain Cook tree seedlings

or summer after rain. Foliar spraying is most effective on plants less than 2 m high. Treating larger plants is very costly and it is difficult to obtain good coverage with the herbicide. For effective results, do not treat infestations during hot, dry, summer periods; when windy; or when the plant is stressed from drought or waterlogging. A surfactant should be added to the herbicide mixture at rates specified on the herbicide label.

Basal bark spray

For stems up to 5 cm in diameter, carefully spray completely around the base of the plant to a height of 40 cm above ground level. For effective control of multi-stemmed plants, each stem must be thoroughly sprayed. Larger trees may be controlled by spraying to a greater height—up to 100 cm above ground level.

Cut stump treatment

At any time of year, cut the stems off horizontally as close to the ground as possible and immediately (within 15 seconds) swab or spray the cut surfaces and associated stem with the herbicide mixture.

Stem injection treatment

Axe cuts should be made at 5–7 cm intervals all around the stem (or stems), allowing undamaged bark between cuts. Cuts should be made below the first branch and at an angle of approximately 30 degrees to the stem. Immediately inject up to 1 ml of herbicide solution per cut, allowing the solution to cover cut surfaces on both the bark and tree.

Further information

Further information is available from your local government office, or from your local primary industries and fisheries biosecurity officer: contact details available through 13 25 23.



Yellow variety of Captain Cook tree

Table 1 Herbicides approved for the control of Captain Cook tree

Situation	Herbicide	Rate	Registration status	Comments
Basal bark	Fluroxypyr (200 g/L)	35 ml/1 L diesel	PER11463	Spray entire circumference of all stems to 40 cm above ground for plants with <5 cm basal diameter—spray to 100 cm for larger plants
Basal bark	Fluroxypyr (333 g/L)	21 ml/1 L diesel	PER11463	Spray entire circumference of all stems to 40 cm above ground for plants with <5 cm basal diameter—spray to 100 cm for larger plants
Stem injection	Glyphosate (360 g/L)	1 L/2 L water	PER11463	Up to 1 ml herbicide solution per cut
	Triclopyr (200 g/L) + picloram (100 g/L)	1 L/4 L water	PER11463	
Cut stump	Triclopyr (200 g/L) + picloram (100 g/L)	1 L/20 L water	PER11463	Cut stumps to less than 10 cm above ground and immediately paint stump after cutting
	Fluroxypyr (333 g/L)	1 L/55 L diesel	PER11463	
	Vigilant® herbicide—picloram (43 g/kg)	Neat	Registered	
Foliar	Fluroxypyr (200 g/L)	1:100 for larger plants; 1:200 for seedlings and smaller plants	PER11463	Spot spray only
Foliar	Fluroxypyr (333 g/L)	1:333 for larger plants; 1:167 for seedlings and smaller plants	PER11463	High-volume spray only

Herbicides used under permit 11463 can only be used in non-agricultural areas, bushland, forests, wetlands, coastal and adjacent areas. Users should read the permit before use. Vigilant® herbicide can only be used in native vegetation areas, conservation areas, gullies, reserves and parks. Users should read the label before use. Restrictions apply on the use of herbicides containing picloram in certain areas of Queensland. More information on herbicide use, hazardous areas, licensing and permits is available from www.dpi.qld.gov.au



Fact sheets are available from Queensland Primary Industries and Fisheries service centres and the Queensland Primary Industries and Fisheries Business Information Centre (telephone 13 25 23). Check our website at www.dpi.qld.gov.au to ensure you have the latest version of this fact sheet. The control methods referred to in this pest fact 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, Queensland Primary Industries and Fisheries does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.