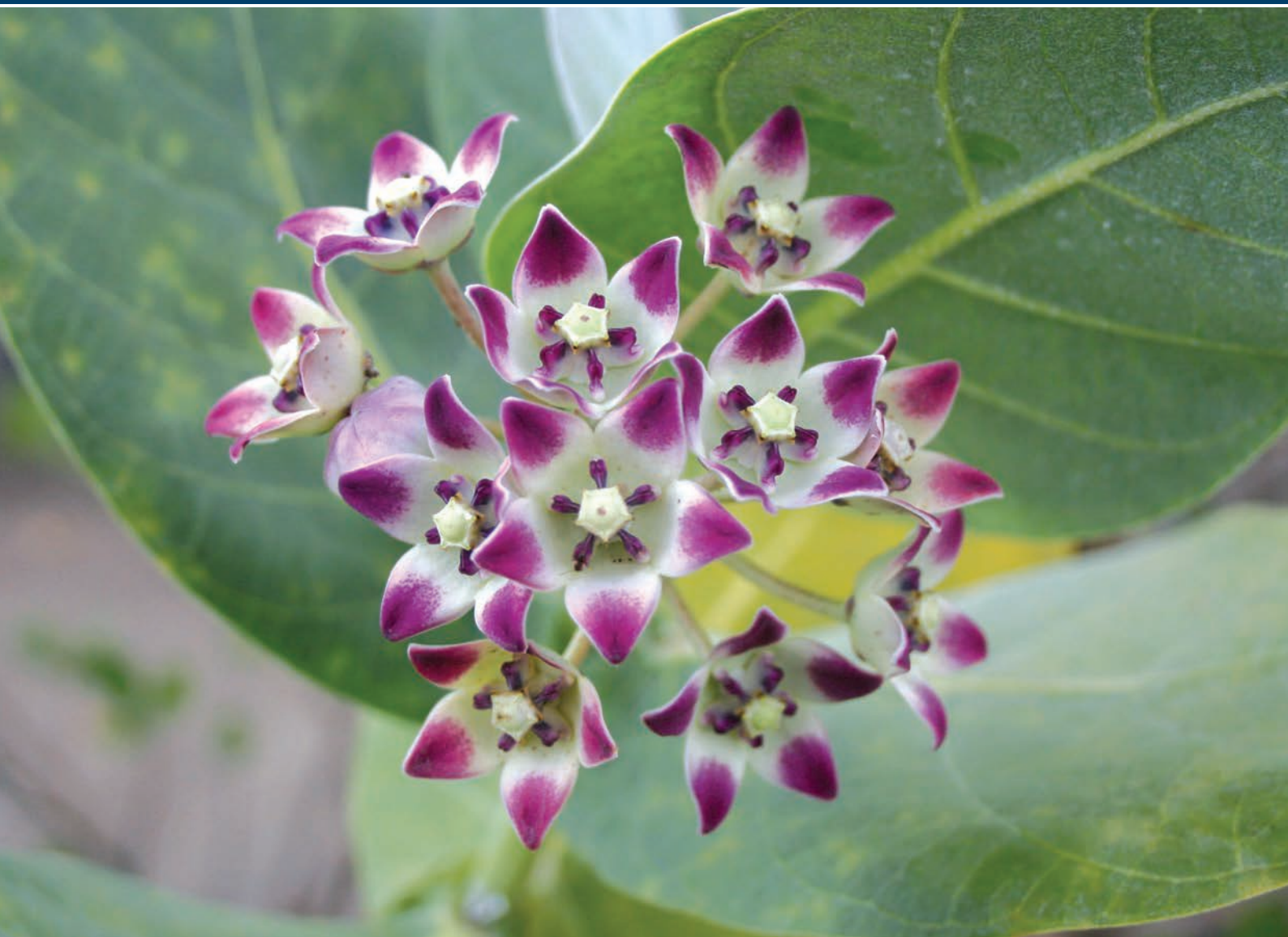


Calotrope

Calotropis procera



Calotrope can readily become established on heavily grazed pastoral land or land disturbed by road making. Dense thickets can form on alluvial flats and along rivers, reducing grazing and water access and substantially reducing the value of the country. The plant is poisonous to humans. There are reports that cattle can eat the plant with no known ill effects in the dry season, but may die from calotrope poisoning if they are subjected to stress e.g. mustering.

Legal requirements

Calotrope is not a prohibited or restricted invasive plant under the *Biosecurity Act 2014*. However, by law, everyone has a general biosecurity obligation (GBO) to take reasonable and practical measures to minimise the biosecurity risks associated with calotrope under their control.

Local governments must have a biosecurity plan that covers invasive plants in their area. This plan may include actions to be taken on calotrope. Some of these actions may be required under local laws. Contact your local government for more information.



**Queensland
Government**

Description

Calotrope is a shrub or small tree that can grow up to 4 m high. A milky sap oozes from any part of the plant that is cut or broken. Stems are smooth and pale greyish green. Mature stems have a characteristic beige corrugated bark that is cork-like in appearance and texture.

The grey-green leaves are attached in opposite pairs directly to the stem. Leaves are large, 10–20 cm long and 4–10 cm wide, with a short, pointed tip and a heart-shaped base.

Flowers grow in groups of up to 15 in the forks of the uppermost leaves. The five-petalled waxy flowers are white with purple tips inside and have a central purplish crown.

The large, green, inflated fruit is rounded at the base and somewhat pointed at the tip, similar in shape to a mango. It grows 8–12 cm long and nearly as wide. When ripe, the fruit bursts and releases numerous seeds, that have tufts of long, silky hairs at one end. These can be carried long distances by the wind.

Habitat and distribution

Calotrope, a native of tropical Africa and Asia, was introduced into Australia as an ornamental shrub. In Queensland, it has become naturalised in the semi-arid north, particularly in the Gulf of Carpentaria region. Infestations on some of the gulf islands are quite extensive, particularly in association with sandy foreshore areas.

Calotrope is a weed of roadsides and watercourses and commonly invades old, cultivated land and heavily grazed areas where there is little competition from grass. Calotrope may spread rapidly from the base of plants and from seedlings unless there is vigorous competition from grass or other herbs. Even in cases where the above-ground plant has disappeared, calotrope often regrows from the root system when conditions become favourable.

Control

Calotrope roots are large and spongy; new plants quickly grow from underground tubers. This makes any form of mechanical control (including fire) difficult.

Herbicide control

Three products are registered for the control of calotrope. Starane Advanced (333 g/L fluroxypyr), Comet 400 (400 g/L fluroxypyr) and Access (picloram 120 g/L + triclopyr 240 g/L) are registered for cut stump/basal bark application (see Table 1).

A permit allows people generally to use a number of herbicide products to control calotrope in various situations. See Table A and B for the treatment options in situations allowed by the permit.

Prior to using the herbicides listed under this permit (PER89485) you must read or have read to you and understand the conditions of the permit. To obtain a copy of this permit visit apvma.gov.au.

Research has shown several herbicides to be effective as foliar spray, cut stump, or basal bark methods of control. A permit is available for these methods.

The best approach is to combine different methods. The control methods you choose should suit the specific plant and your particular situation.

More information

More information is available from your local government or visit biosecurity.qld.gov.au.



Table A. Herbicides for the control of calotrope – ground application only under PER89485 (expires 30 September 2028)

Situation	Herbicide	Rate	Comments
Agricultural non-crop areas, commercial and industrial areas, fence lines, pastures, rights-of-way, roadsides and stock routes, and bushland/native forests	Metsulfuron-methyl 600 g/kg (e.g. Nufarm Associate Herbicide)	20 g/100 L water	<p>Apply to juvenile plants up to 2 m high.</p> <p>DO NOT apply to plants greater than 2 m in height.</p> <p>Add Uptake Spraying Oil paraffinic oil surfactant at 1 L/100 L of final spray volume (i.e. 1% vol/vol) for optimum results.</p> <p>DO NOT spray past the point of runoff. Ensure thorough spray coverage of all foliage. Incomplete coverage will result in regrowth.</p> <p>Apply to actively growing plants up to early flowering. Avoid spraying when plants are stressed or fruiting. Repeat spray application when re-infestation occurs.</p> <p>DO NOT use foliar spray application on plants that appear to have leaf spot disease or to plants that have reduced foliage due to grazing.</p> <p>DO NOT apply to pastures as off target damage may occur.</p> <p>Rainfall within two hours of the spray mixture drying on leaves may result in reduced control.</p>
Agricultural non-crop areas, commercial and industrial areas, fence lines, rights-of-way, and roadsides	Imazapyr 240 g/L (e.g. Arsenal Super Herbicide)	550 mL/100 L water	<p>CAUTION: Metsulfuron-methyl will damage legumes in pasture.</p>
	Imazapyr 250 g/L (e.g. Genfarm Imazapyr 250 SL Herbicide)	500 mL/100 L water	
Agricultural non-crop areas, commercial and industrial areas, fence lines, pastures, rights-of-way, roadsides and stock routes	Hexazinone 250 g/L (e.g. CropSure Hexasure 250 Herbicide)	2–4 mL/spot/ metre plant height	<p>Liquid spot treatments can be applied to soil using a suitable spot applicator gun at any time of the year, for optimum results apply to moist soil. For plants up to 2 m in height apply 2 mL/spot. Apply 1 spot for each metre in plant height. For plants up to 2 m height apply 4 mL/spot. For example, a 2 m high plant would receive 2 x 4 mL spots.</p> <p>Note: All spots to be placed either close to the base or between the base and the drip line. Where only two spots are applied per plant, place spots on either side of the plant. When multiple spots are required, ensure spots are evenly spaced around the plant.</p> <p>Use higher rates on heavy soils and soils high in organic matter or carbon.</p>
Agricultural non-crop areas, commercial and industrial areas, fence lines, grazing land, rights-of-way, roadsides and stock routes	Tebuthiuron 200 g/kg (e.g. Foison Tebuthiuron 200 GR Herbicide)	1.5–2 g/m ²	<p>Tebuthiuron needs to be applied uniformly over the square metre.</p> <p>Use higher rates on heavy soils and soils high in organic matter or carbon.</p> <p>Apply after the onset of storms (to moisten soil, close soil cracks (where applicable) and before wet season surface flooding.</p> <p>DO NOT apply herbicide on to ash in recently burnt areas as this may reduce the herbicide’s effectiveness.</p> <p>DO NOT apply product under conditions which will move granules to non-target areas during application.</p>

Table B. Herbicides for the control of calotrope – aerial application – helicopter or unmanned aerial vehicle (UAV) under PER89485 (expires 30 September 2028)

Situation	Herbicide	Rate	Comments
Agricultural non-crop areas, commercial and industrial areas, fence lines, grazing land, rights-of-way, roadsides and stock routes, and bushland/native forests	Tebuthiuron 200 g/kg (Graslan Aerial Herbicide)	12.5–15 kg/ha	<p>Apply in accordance with label instructions.</p> <p>Application via UAV is only permitted when the user can comply with all label instructions, including the requirement to maintain a minimum flying height of 20 m above the canopy of the target plants.</p> <p>Use higher rate on heavy soils and soils high in organic matter or carbon.</p> <p>Apply after the onset of storms (to moisten soil and close soil cracks (where applicable)) and before wet season surface flooding.</p>

Critical use comments:

- Apply in accordance with Table A and Table B.
- For foliar or soil application for juvenile plants to 2 m height where plants are too small for cut stump or basal bark methods and for the control of dense inaccessible stands using soil application methods where cut stump or basal bark methods are not feasible.

Withholding period: Grazing: Not required when used as directed.

Table 1. Registered herbicides for the control of calotrope.

Situation	Herbicide	Rate	Comments
Agricultural non-crop areas, commercial and industrial areas, fence lines, pastures and rights-of-way	Fluroxypyr 333 g/L (Starane Advanced Herbicide)	3 L/100 L diesel or Biosafe Biodegradable Herbicide Carrier	Basal bark/cut stump application Consult label for instructions
Agricultural non-crop areas and rights-of-way, commercial and industrial areas, forests (including softwood plantations) and pastures	Fluroxypyr 400 g/L (Comet 400 Herbicide)	2.5 L/100 L diesel	Basal bark/cut stump application Consult label for instructions
Agricultural non-crop areas, commercial and industrial areas, fence lines, forestry, pastures and rights-of-way	Picloram 120 g/L + triclopyr 240 g/L (e.g. Access Herbicide)	1 L/60 L diesel or Biosafe Biodegradable Herbicide Carrier	Basal bark/cut stump application Consult label for instructions

Read the label carefully before use. Always use the herbicide in accordance with the directions on the label.



Fact sheets are available from biosecurity.qld.gov.au. The control methods recommended 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, the department does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.

