Green cestrum

Cestrum parqui

Green cestrum is an escaped garden plant that has become a invasive plant of roadsides, creeks and neglected sites in central and South East Queensland. The roots, seeds, stems and leaves are toxic to many domestic animals.

Generally dispersed by birds, seeds are also spread by water movement. Plants can regrow from cut root pieces. Seedlings will not readily establish under conditions of vigorous competition with other plants.

The plant grows vigorously if neglected. On alluvial flats, it has been known to outcompete most other vegetation.

Green cestrum needs careful control because its extensive, shallow root system can produce many new plants from suckers, particularly after root disturbance or injury.

Queensland Government

Green cestrum is poisonous to animals including cattle, sheep, horses, pigs and poultry. Its effect on native fauna is unknown. Two alkaloids, parquine and solasonine, have been isolated from green cestrum and it is thought that these substances could be responsible for its toxic effects.

Symptoms in cattle include fever, loss of appetite, increased thirst and eventually general paralysis. Poultry develop acute kidney and liver damage. Post-mortem examination of poisoned animals usually reveals extensive internal haemorrhaging.

The time of death varies from mere hours to three days after consumption of the plant, and depends on the animal, time of year and amount of green cestrum eaten.

Legal requirements

Green cestrum 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 invasive plants 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 green cestrum. Some of these actions may be required under local laws. Contact your local government for more information.

Description

Green cestrum is also known as green poison berry or Chilean cestrum. It is a perennial shrub that grows up to 3 m high, with one or more stems emerging from each crown. The young stems are whitish; the older stems are darker, striated at the base and mottled above. The leaves are alternate, up to 12 cm long and 2.5 cm wide, and have an unpleasant odour when crushed.

Flowers are greenish-yellow in clusters at the ends of branches. The flower tubes are up to 2.5 cm long and have five small terminal lobes. They have an unpleasant odour by day but are fragrant at night.

The fruit is a purplish-black, oval berry about 1 cm long and contain one or two seeds. Seeds have an irregular shape and sharp angles that are 3–4 mm long.

Distribution

A native of Chile and Peru, green cestrum was introduced as a garden ornamental. Green cestrum is a common invasive plant on vacant allotments, roadsides and creek banks around towns in south-eastern Queensland and some towns in Central Queensland. Green cestrum prefers areas with higher rainfall and is quite tolerant of frost.

Green cestrum is mainly spread by birds eating the fruit and excreting viable seeds. It can also regenerate from root pieces to produce new infestations, particularly when cultivation or roadside grading disturbs or relocates roots. Flood waters also aid in the dispersal of the plant.

Life cycle

Seeds germinate in autumn. Plants flower after two years and produce flowers for several months through summer and autumn. Green cestrum is long-lived, producing new growth in spring. Seeds remain dormant in the soil for many years.

Prevention

Newly established plants should be destroyed before they flower and produce berries. Birds eat the berries, dispersing the seed to new areas. Do not plant green cestrum in gardens, as this acts as a potential point of dispersion.

Roadside infestations should be controlled before road grading is carried out. The same recommendation applies in cultivation areas; control the cestrum first. Land that is overgrazed and therefore has limited plant competition should be regularly checked for new infestations.

Control

The best approach is dependent on the individual situation and may include a combination of changes in land management with herbicide, biological and mechanical control methods. The final combination chosen needs to take into account the size of the infestation, the availability of control methods and the life cycle of green cestrum.

Green cestrum seedlings can be suppressed by vigorous competition from other plants. Control adult plants, then plant a vigorous pasture species or local native species that will compete with seedlings. This method is not always practical on riverbanks and gravel beds.

Mechanical control

Green cestrum can be destroyed by digging out the plants completely. Care must be taken to remove all the yellow roots otherwise regrowth will occur. It is preferable to burn the roots.

Herbicide control

If annual treatments are performed and seeding is reduced, germination will be reduced. In pasture areas, avoid heavy grazing as it will encourage green cestrum growth, and apply superphosphate to promote pasture growth.

Slashing shortly before flowering can also effectively prevent seed production. However, if slashing is carried out too early, plants often regrow and produce new flower heads.

Caution: Remove livestock from the sprayed area until the leaves drop. Treated plants can be more attractive to livestock.

Landholders and contractors are reminded to check if the property is situated in a hazardous area as defined in the *Agricultural Chemicals Distribution Control Act 1966*.

More information

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

Table 1. Herbicides for the control of green cestrum

Situation	Herbicide	Rate	Comments
Agricultural non-crop areas, commercial and industrial areas, pastures and rights-of-way	2,4-D 300 g/L+ picloram 75 g/L (e.g Tordon 75-D®)	650 mL/100 L water	Spot spray during full leaf stage
Agricultural non-crop areas, commercial and industrial areas, fence lines, forests, pastures and rights-of-way	Triclopyr 240 g/L + picloram 120 g/L (e.g. Access®)	1 L/60 L diesel	Basal bark or cut stump
	Triclopyr 300 g/L + picloram 100 g/L (e.g. Conqueror) or Triclopyr 300 g/L + picloram 100 g/L + aminolpyralid 8 g/L (Grazon Extra®)	500 mL/100 L water	Apply late spring to early autumn Thorough coverage of leaf and stem Any regrowth and seedlings must be resprayed at approximately 1 m high (see label)
Non-crop areas around buildings, commercial and industrial areas, domestic and public service areas, rights-of-way	Amitrole 250 g/L + ammonium thiocyanate 220 g/L (e.g. Amitrole T®)	1.1 L/100 L water	Spray weeds just prior to flowering Repeat if necessary
Agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way	Trichlopyr 600 g/L (e.g. Garlon 600®)	170 mL/100 L	Thoroughly spray plants that are 1–2 m high when growth is active Spray regrowth after hardening off in the following season
	Picloram 240 g/L (e.g. Stuka Flexi)	205 mL + 310 mL 2,4-D amine (625 g/L formulation)/100 L water (tank mix)	Spot spray during full leaf stage

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

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