

Coral cactus

Cylindropuntia fulgida var. *mamillata*



Coral cactus can form dense infestations that will compete with native vegetation, limiting the growth of small shrubs and groundcover species. It can also reduce land use and pastures.

Coral cactus can harbour invasive animals, such as foxes and rabbits and, due to their spiny nature, can limit access for stock mustering and recreational activities. The spines can cause injury to stock and native animals, reducing or preventing grazing activities and productivity.

Possession, propagation and distribution of coral cactus as an ornamental plant are not considered reasonable and practical measures to prevent or minimize the biosecurity risks posed by coral cactus.

In Queensland it is illegal to sell coral cactus on Gumtree, Ebay, Facebook, at markets, nurseries or any marketplace.



**Queensland
Government**

Legal requirements

Coral cactus is a category 3 restricted invasive plant under the *Biosecurity Act 2014*. It must not be given away, sold, or released into the environment. The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with invasive plants under their control. This is called a general biosecurity obligation (GBO). This fact sheet gives examples of how you can meet your GBO.

At a local level, each local government must have a biosecurity plan that covers invasive plants in its area. This plan may include actions to be taken on coral cactus. Some of these actions may be required under local laws. Contact your local government for more information.

Description

Coral cactus grows as a branching shrub up to 1.5 m high. The stems are divided into green to grey-green cylindrical pads, 10–22 cm long, 2–4.5 cm in diameter, that are fist-like and obtuse at their apex. Mature coral cactus pads widen, become distorted and wavy, and resemble a piece of coral. Cladodes can be cylindrical to club-shaped or distorted and can occur on the same plant.

Small bristles (glochids) are arranged in clusters in small depressions (areoles) on each segment. Areoles also have 0–10 white to brownish spines up to 1.7 cm long. The surface of each spine is covered with microscopic reverse barbs that make the spine difficult to remove once it has penetrated a person's skin. Coral cactus rarely produces small pink to deep red flowers, 1–2 cm wide. The fruit is oval shaped, yellow-green, 2–5 cm wide.

Life cycle

Coral cactus reproduces vegetatively, both sexually and asexually. Birds and other animals readily eat the many seeded fruits and deposit seeds in their droppings. The seeds have hard seed coats that allow them to survive heat and lack of water.

Asexual reproduction (cloning) of coral cactus occurs when pads (joints, segments) or fruits located on the ground take root and produce shoots. Fruit are generally sterile. It rarely flowers and does not produce seed.

Methods of spread

Coral cactus can be spread by easily detachable cladodes attached to animals and humans. Once attached to the skin of animals, microscopic reverse barbs on the spines make the segments difficult to remove. Most stem segments fall close to the parent plant. Segments can take root where they fall. Coral cactus can also spread by machinery, vehicles, land clearing and from ornamental plantings. Floodwater can move broken pads long distances. These pads can survive long periods of drought before weather conditions allow them to set roots.

Habitat and distribution

Native to Arizona in the United States, coral cactus can be found throughout most Australian states and territories and there is potential for further spread.

It is mainly found in western areas of Queensland including Hebel, Longreach, Mt Isa, Roma, Wyandra, Yowah, north of Eulo, Quilpie and along the Ward and Warrego rivers near Charleville.

Coral cactus prefers hot, arid to semi-arid grasslands and low woodland, riparian zones, urban areas, agricultural areas and rangelands.

Control

Managing coral cactus

The GBO requires a person to take reasonable and practical measures to minimise the biosecurity risks posed by coral cactus. This fact sheet provides information and some options for controlling coral cactus.

It can be difficult to control as small cladodes are very difficult to detect. The best control for coral cactus incorporates integrated management strategies, including herbicides, mechanical and biological methods.

Physical control

Dig out plants completely and burn. Ensure that all tubers that can grow are removed and destroyed. Ploughing is not considered an effective means of control unless followed by annual cropping. For advice on disposal options, contact your local government office or Biosecurity Queensland on 13 25 23.

Mechanical and fire control

Mechanical control using machinery is difficult because pads can easily re-establish. A hot fire is an effective control method for dense infestations. Before burning, consult Biosecurity Queensland to see if this practice is suitable for your pasture and land management practices.

Biological control

A cochineal *Dactylopius tomentosus* (cholla biotype) is proving an effective biological control agent for coral cactus. At sites near Longreach and Hebel, plants were killed within 18 months of release. It should be noted that this biotype of the insect is not as effective on other species of *Cylindropuntia*. In addition, other *Dactylopius* species/biotypes of the cochineal are not as effective on coral cactus, so their utilization should be discouraged.

Once established on individual plants, the adults provide a continuous supply of new insects to attack new growth and surrounding plants. Cochineal insects are wind-borne and spread to new plants, relies on individuals landing on suitable plants. However, control and spread can be enhanced if the cochineal is manually transferred to new plants.

How to distribute cochineal

Spreading cochineal insects simply involves the manual transfer of cochineal-infested segments, like the one in the photo, into plants that do not contain cochineal insects

To assist in the distribution and spread of cochineal, physically move infected stem segments and place in isolated plants (>50 m away). Collect infected stem segments from existing coral cactus plants using tongs and a knife. To transport stem segments, use plastic tubs with lids. Don't leave cochineal in direct sunlight or hot vehicles.

Herbicide control

Herbicide options available for the control of coral cactus in Queensland are shown in Table 1. Landholders and contractors should check if the property is in a hazardous area as defined in the *Agricultural Chemicals Distribution Control Act 1966* prior to spraying.

Further information

Contact your local government for more information or visit biosecurity.qld.gov.au.

Table 1. Herbicides for the control of coral cactus

Situation	Herbicide	Rate	Method
Agricultural non-crop areas, commercial and industrial areas, fence lines, forestry, pastures and rights-of-way	Triclopyr 240 g/L + Picloram 120 g/L (e.g. Access)	1 L/60 L diesel	Apply as an overall spray APVMA permit PER92465 (expires 30/11/2024)
	600 g/L triclopyr products (e.g. Garlon)	3 L / 100 L water	Foliar spray APVMA permit PER92465 (expires 30/11/2024)
Pastures, non-crop areas, commercial and industrial areas, domestic and public service areas and rights-of-way	Aminopyralid 8 g/L + picloram 100 g/L + triclopyr 300 g/L (e.g. Grazon Extra)	500 mL/100 L of water	Foliar spray APVMA permit PER90719 (expires 31/02/2024)
Pastures, roadsides, rights-of-way, bushland/native forests, agricultural non-crops areas, commercial and industrial areas, domestic and public service areas, vacant lots, wastelands	Triclopyr 200 g/L + Picloram 100 g/L + Aminopyralid 25 g/L (Tordon regrowth master)	undiluted	Stem injection Apply 2 mL solution per 10 cm cut APVMA permit PER92459 (expires 31/08/2025)
	Glyphosate 360 g/L (roundup)	undiluted to 1:1 in water	
	Amitrole 250 g/L + Ammonium thiocyanate 220 g/L (e.g. Amitrole T)	undiluted	Stem injection 1 mL injected into cuts at 3 cm spacing APVMA permit PER92459 (expires 31/08/2025)
Non-crop areas, including native vegetation, conservation areas, gullies, reserves and parks	Aminopyralid 4.47 g/L + picloram 44.7 g/L (Vigilant)	Neat	Cut stump 3–5 mm thick layer over cut surface APVMA permit PER92475 (expires 30/11/2024)

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



Biological control damage



Coral cactus can be spread by footwear



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.

