

Jumping cholla

Cylindropuntia prolifera



Jumping cholla is a small shrub with stems that detach when lightly touched, enabling it to move or jump short distances off the parent plant and latch onto passers-by. It is naturalised around Lightning Ridge and Broken Hill in New South Wales and Longreach in Queensland. It is listed as a Weed of National Significance which covers *Austrocylindropuntia*, *Cylindropuntia* and *Opuntia* species.

Jumping cholla can destroy native pastures and dense infestations can impede access and reduce stock-carrying capacity. It can become a dominant species and displace native vegetation and pasture species.

The sharp spines can cause injury to stock, humans and native animals. The spines can also penetrate boots and car tyres.

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

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



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Legal requirements

Jumping cholla is a category 2, 3, 4 and 5 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 certain species. Some of these actions may be required under local laws. Contact your local government for more information.

Description

Jumping cholla is a small grey-green shrub that usually grows up to 1 m high, sometimes reaching 3 m. Segments are cylindrical, 4–15 cm long, 4–5 cm wide, have a waxy and flaky surface when dry and are covered with fleshy tubercles bearing many brown or reddish spines up to 2 cm long. Flowers are reddish-purple and about 4 cm wide. Fruits are green, obovoid to globose, 2–4 cm long and arranged in chains of up to five.

Life cycle

Jumping cholla reproduces by seed and vegetatively via stem segments. Seeds are rare. Fruit are generally sterile. Most reproduction is from broken stem fragments. Flowering occurs mostly during late spring and summer.

Methods of spread

Jumping cholla can be spread by animals, footwear, vehicles and machinery. The fruit and stem segments break off easily from the parent plant. It can also spread by floodwaters, and in some cases by being rolled along bare ground by strong winds. Fruit are eaten by birds and other animals, and the seeds then spread in their droppings.



Jumping cholla can be spread by footwear

Habitat and distribution

Native to California and Mexico, jumping cholla can be found around Lightning Ridge and Broken Hill in New South Wales. The only reported naturalised population in Queensland is in Longreach.

Jumping cholla prefers hot, semi-arid and arid rangeland in subtropical areas. Habitats most at risk are elevated, rocky ridgelines and slopes.

Control

Managing jumping cholla

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

The best control for jumping cholla incorporates integrated management strategies, including herbicides, mechanical, physical and biological methods.

It can be costly and time-consuming to control. If you see jumping cholla, seek advice on control options from Biosecurity Queensland on 13 25 23.

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 or Biosecurity Queensland on 13 25 23.

Mechanical and fire control

Mechanical control using machinery is difficult because stem segments 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. A forestry mulcher has recently been trialled and works well as a control method but can be expensive.

Biological control

A cochineal insect (*Dactylopius tomentosus*) (californica var. parkeri biotype) has recently been approved for release. In laboratory trials, it appears to be very effective against jumping cholla. However, it should be noted that this biotype of the species is not as effective on other species of *Cylindropuntia*. In addition, other *Dactylopius* species/biotypes of the cochineal are not as effective on jumping cholla, 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. They rely 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 involves the manual transfer of cochineal-infested segments, onto plants that do not contain cochineal insects.

To assist in the distribution and spread of cochineal, physically move infected stem segments and place on isolated plants (>50 m away). Collect infected stem segments from existing jumping cholla 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

Four permits allow the use of several herbicides and application methods to control jumping cholla as an invasive plant in various situations.

Table 1. Herbicides for the control of jumping cholla

Situation	Herbicide	Rate	Comments
Agricultural non-crop areas, commercial and industrial areas, fence lines, forestry, pastures and rights-of-way (APVMA permit PER92465)	Triclopyr 240 g/L + Picloram 120 g/L (e.g. Access)	1 L / 60 L diesel	Foliar spray Apply as a thorough foliar spray to all stems
Native pastures, agricultural non-crop areas, rights-of-way, commercial and industrial areas (APVMA permit PER92465)	Metsulfuron-methyl 600 g/kg (e.g. Metsun 600 Herbicide)	20 g / 100 L water	
Pastures, non-crop areas, commercial and industrial areas, domestic and public service areas and rights-of-way (APVMA permit PER90719)	Aminopyralid 8 g/L + picloram 100 g/L + triclopyr 300 g/L (e.g. Grazon Extra)	500 mL / 100 L water	
Agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way (APVMA permit PER90719)	Triclopyr 200 g/L + Picloram 100 g/L + Aminopyralid 25 g/L (e.g. Tordon Regrowth Master Herbicide)	2.5 L / 100 L water	
Pastures, roadsides, rights-of-way, bushland/native forests, agricultural non-crops areas, commercial and industrial areas, domestic and public service areas, vacant lots, wastelands (APVMA permit PER92459)	Triclopyr 200 g/L + Picloram 100 g/L + Aminopyralid 25 g/L (e.g. Tordon Regrowth Master)	Undiluted	Stem injection Apply 2 mL solution per 10 cm cut
	Glyphosate 360 g/L (e.g. Roundup)	Undiluted to 1:1 in water	
Non-crop areas, including native vegetation, conservation areas, gullies, reserves and parks (APVMA permit PER92475)	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
	Aminopyralid 4.47 g/L + picloram 44.7 g/L (e.g. Vigilant II)	Undiluted	
			Cut stump Apply 3 mm gel layer over each cut stem

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

See Table 1 for treatment options allowed by the permits.

Prior to using the herbicides listed under the permits (PER90719, PER92459, PER92465 and PER92475), you must read or have read to you and understand the conditions of the permits. To obtain a copy of these permits visit apvma.gov.au.

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.

More information

More information is available from your local government or call Biosecurity Queensland on 13 25 23 or visit biosecurity.qld.gov.au.



Placing an infected cladode on jumping cholla



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.

