

# Drooping tree pear

*Opuntia monacantha*



Drooping tree pear is an upright tree-like plant that is scattered in northern and south-eastern Queensland.

It can invade 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.

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

**In Queensland it is illegal to sell drooping tree pear on Gumtree, eBay, Facebook, at markets, nurseries or any marketplace.**

## Legal requirements

Drooping tree pear 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 certain species. Some of these actions may be required under local laws. Contact your local government for more information.

## Description

This erect succulent shrub has fibrous roots and grows 2–3 m high but can reach up to 5 m high. The branches are divided into glossy light green pads up to 45 cm long, 15 cm wide and 1.5 cm thick. The dark grey trunk grows up to 25 cm in diameter. Drooping tree pear gets its name because the upper segments tend to droop. The areoles on the older pads have 1–5 sharp spines about 5 cm long.

Small, scale-like leaves are found on areoles of very young pads and are quickly shed as the pad grows. Drooping tree pear produces yellow flowers that are 6 cm wide and have red markings on the back. The fruit is pear-shaped and 4–7 cm long with a green skin. The flesh of the fruit is red and pulpy and contains round seeds that are yellow or pale brown. The fruits have areoles with tufts of fine, barbed bristles.

## Life cycle

Drooping tree pear reproduces by seed and vegetatively via stem segments. Most reproduction is from broken stem fragments. Flowering occurs mostly from early spring until early autumn.

## Methods of spread

Drooping tree pear 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 dumped garden waste. The fruit are eaten by birds and other animals (e.g. foxes) and the seeds then spread in their droppings.

## Habitat and distribution

Native to South America, drooping tree pear can be found in south-east Queensland. Small populations occur on Stradbroke Island.

Drooping tree pear prefers sub-tropical, semi-arid and warmer temperate environments. It can be found in pastures, open woodlands, grasslands, roadsides, railways, creekbanks, disturbed sites, waste areas and coastal areas.

## Control

### Managing drooping tree pear

The GBO requires a person to take reasonable and practical measures to minimise the biosecurity risks posed by drooping tree pear. Propagation of drooping tree pear to keep as an ornamental plant is not considered reasonable with reducing the risk of further spread of this plant.

This fact sheet provides information and some options for controlling drooping tree pear.

The best control for drooping tree pear incorporates integrated management strategies, including herbicides, mechanical, physical and biological methods.

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

### Physical control

Slashing and ploughing are not considered effective control as this can lead to further spread through establishment from stem fragments. Chip out, bag and burn any isolated plants or dispose of them at council-approved landfill tips.

Ensure that all tubers that can grow are removed and destroyed. Plant material must never be included with green waste.

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 stem segments can easily re-establish. A hot fire is considered an effective management method for use on more dense infestations.

### Biological control

A cochineal *Dactylopius ceylonicus* is proving an effective biological control agent for drooping tree pear. It should be noted that this insect is not effective on other species of cactus, so its utilization on other species 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 (see below).



Placing an infected cladode on drooping tree pear

## How to distribute cochineal

Spreading cochineal insects simply involves the manual transfer of cochineal-infested segments, like the one in the photo, onto 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 drooping tree pear plants using tongs and a knife. To transport stem segments, use plastic tubs with lids. Don't leave the cochineal in direct sunlight or hot vehicles.

## Herbicide control

Treatment with herbicides can be effective, because the plants are relatively easy to find. Herbicide options available for the control of drooping tree pear in Queensland are shown in Table 1.

**Table 1. Herbicides for the control of drooping tree pear**

Situation	Herbicide	Rate	Comments
Agricultural non-crop areas, commercial and industrial areas, fence lines, forestry, pastures and rights-of-way	Triclopyr 300 g/L + Picloram 100 g/L (e.g. Conqueror) or Triclopyr 300 g/L + Picloram 100 g/L + Aminopyralid 8 g/L (Grazon Extra)	500 mL/100 L water	
Non-crop areas around buildings, commercial and industrial areas, domestic and public service areas and rights-of-way	Amitrole 250 g/L + Ammonium thiocyanate 220 g/L (e.g. Amitrole T)	1 mL/3 cm (inject) or 1 L/25 L (small plants/regrowth)	Tree pears may take up to 12 months to die. Respraying may be needed in some cases.
Non-agricultural areas, domestic and public service areas, commercial and industrial areas, bushland/native forests, roadsides, rights-of-way, vacant lots, wastelands, wetlands, dunal and coastal areas	Triclopyr 240 g/L + Picloram 120 g/L e.g. Access Herbicide	250 mL per 15 L in diesel or other suitable carrier as per product label general instructions	Either paint stump immediately after cutting or paint or spray basal bark. APVMA permit PER11463 Permit expires 30/06/2023

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



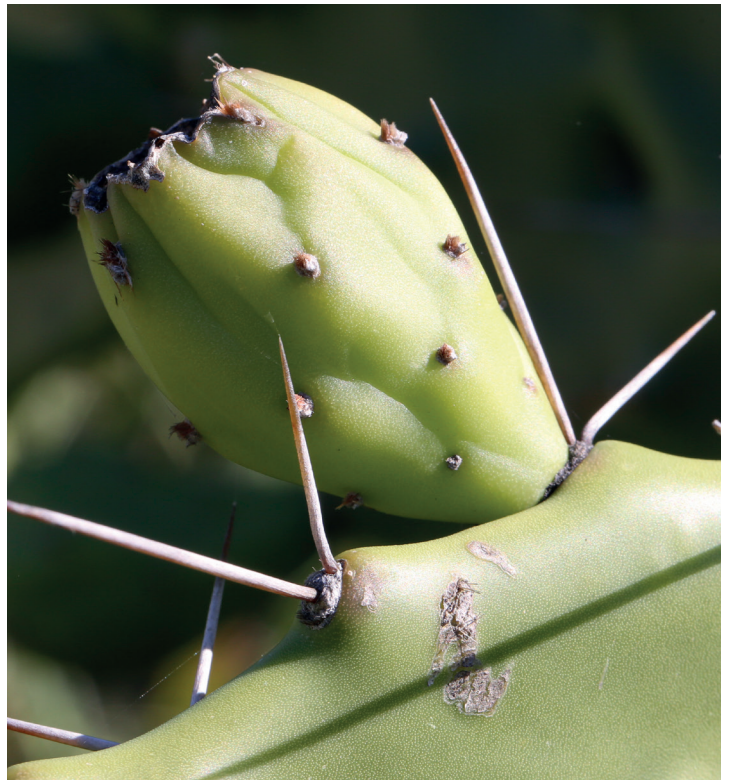
Cochineal taking effect on drooping tree pear cladode

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.

Prior to using the herbicides listed under Permit 11463 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](http://apvma.gov.au).

## Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland on 13 25 23 or visit [biosecurity.qld.gov.au](http://biosecurity.qld.gov.au).



This fact sheet is developed with funding support from the Land Protection Fund.

Fact sheets are available from Department of Agriculture and Fisheries (DAF) service centres and our Customer Service Centre (telephone 13 25 23). Check our website at [biosecurity.qld.gov.au](http://biosecurity.qld.gov.au) to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet 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, DAF does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.