Fact Sheet

Harrisia cactus

Restricted Invasive Plant

Harrisia cactus is a restricted invasive plant under the *Biosecurity Act 2014*. It must not be given away, sold or released in the environment without a permit. All residents have a General Biosecurity Obligation (GBO) under the Act. The GBO requires a person to take reasonable and practical steps to minimise the risks posed by Harrisia cactus. More information is available in the City of Ipswich Biosecurity Plan 2018-2023 at Ipswich.qld.gov.au.

Scientific names

- *Harrisia martini*
- *Harrisia tortuosa*
- *Harrisia pomanensis*

Other names

- Moonlight cactus
- Snake cactus

Description

- Spiny perennial plant with fleshy-jointed stems that form a tangled mat about half a metre tall.
- Flowers are large, funnel-shaped, and pink with tinges of white. They grow singly near the end of the stems and open at night.
- Fruit is round, 4-5 centimetres in size, bright red, scattered bumps, hairs and spines.
- Seeds are small, black and embedded in the fruit's white pulp which splits open when ripe.

Life cycle

- Each fruit contains 400-1,000 small black seeds.
- Plants are easily established from seed and will germinate soon after rain.
- Seedlings quickly produce a swollen tuberous food storage root that develops as the plant grows.

Local habitat and distribution

- Habitation in the local Ipswich area is primarily in suburbs and locations adjacent to the Warrego Highway.
- Fruit and seed are easily distributed when eaten by birds, mammals and to a lesser extent by feral pigs.
- Branches will take root where they touch the ground and new plants will grow from broken branches and sections of underground tubers.

Management strategy

- Management of this species falls under the containment management strategy.
- The objective of this strategy is to reduce the distribution of the species and the size of infestations.
- Containment is necessary when an invasive species is beyond eradication and the priority is to prevent further spread.
- The General Biosecurity Obligation for this species should involve:
  1. developing a plan for the containment of the species
  2. determining the most appropriate level of control to reduce the infestation over a 1 month - 3 year period
  3. undertaking routine inspections to ensure reinfestation is managed.
- More information on the citywide management strategies for Ipswich (prevention, eradication, containment and asset-based protection) can be found in the City of Ipswich Biosecurity Plan 2018-2023.

Impact

- Harrisia cactus forms dense infestations that choke out other pasture species.
- Spines interfere with stock mustering and movement, and causes injuries and lameness to stock.

Control

Physical control

- Dig out plants completely and burn.
- Ensure all tubers that can grow are removed and destroyed.

Biological control

- Two introduced insects have become established in the field:
  1. stem-boring longicorn beetle *(Alcidion cereicola*
  2. mealy bug *(Hypogeocaccus festerianus)*
- The stem-boring beetle only attacks older woody stems and is less effective than the mealy bug.
- The mealy bug aggregates and feeds in the tips of stems and buds, where it limits growth and causes distortion.

For more information on how and when to spread the mealy bug, visit Biosecurity.qld.gov.au.

Herbicide control

- Foliar application of registered herbicides provides effective control.
- Before using any herbicide, always read the label carefully and apply strictly in accordance with the directions on the label.

Situation	Herbicide	Rate	Information
Non-crop land and rights-of-way	Dichlorprop as K salt (600 g/L)	1 L/60 L water	▪ Good soil moisture essential ▪ Spray plant when actively growing to run-off point ▪ A follow-up treatment may be necessary
Native pastures, rights-of-way, commercial and industrial areas	Metsulfuron-methyl (600 g/kg) (e.g. Brush-Off®)	20 g/100 L water + surfactant	▪ Spray plant when actively growing to run-off point ▪ A follow-up treatment may be necessary
Agricultural non-crop areas, commercial and industrial areas, fence lines, forestry, pastures and rights-of-way	Triclopyr as butotyl (240 g/L) + Picloram as ioe (120 g/L) (e.g. Access®)	1 L/60 L diesel	▪ Spray plant when actively growing ▪ Apply as overall spray, wetting all areas of the plant to ground level
Non-agricultural areas (native pastures), commercial and industrial areas and rights-of-ways	Aminopyralid as K salt 375 g/kg + Metsulfuron methyl 3 g/kg (e.g Stinger)	40 g/100 L water	▪ Spray to thoroughly wet using 1,000 to 1,400 L/ha ▪ Follow-up treatment may be necessary
Commercial and industrial areas, around buildings and rights-of-way	Triclopyr as butotyl 75 g/L + Metsulfuron-methyl 28 g/L (e.g. Zelam Brush Weed®)	500 mL/100 L	▪ Spray to thoroughly wet using 1,000 to 1,500 L/ha ▪ Follow-up treatment may be necessary
Agricultural non-crop areas, commercial and industrial areas, forests, pastures and rights-of-way	Triclopyr as tea 200 g/L + Picloram as tipa 100 g/L (e.g. Slasher) or Triclopyr as tea 200 g/L + Picloram as tipa 100 g/L + Aminopyralid 25 g/L (e.g. Tordon RegrowthMaster, Tordon DSH®)	2.5 L/100 L water	▪ Spray plant when actively growing (September – March) ▪ Treat all stems thoroughly

Images Source: The State of Queensland (through the Department of Agriculture and Fisheries)[2019])
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