



Erect Prickly Pear

Department of Primary Industries

Common Names

Erect prickly pear, common prickly pear

Botanical Name

Opuntia stricta Haw.

Status

Erect prickly pear is a Regionally Prohibited Weed in the Mallee, West Gippsland and East Gippsland Catchment and Land Protection Regions, and a Regionally Controlled Weed in the North Central, Port Phillip West and North East CaLP Regions. Land owners in areas where erect prickly pear is Regionally Prohibited must eradicate or control it on their land. Landholders in areas where erect prickly pear is Regionally Controlled must take all reasonable steps to control it and prevent its spread on their land and the roadsides which adjoin their land.

Origin and Distribution

Erect prickly pear originated in southern North America, central and tropical America. A number of infestations occur in Victoria, particularly in dry, rocky areas, the most severe being in the north-east at Eldorado near Beechworth and in the Organ Pipes National Park near Keilor.

Description

There are 14 species of *Opuntia* cactus naturalised in Victoria. Erect prickly pear is a spreading to erect succulent plant up to 2 m high, lacking or having only a poorly developed trunk; reproducing by seed and from branch segments.

Stems - bluish-green to dull green, paddle shaped, fleshy segments (called cladodes). Mature cladodes at the ends of branches are 15 to 30 cm long, 7 to 15 cm wide and 1 to 2 cm thick. The cladodes have small cavities or depressions (called areoles) arranged diagonally across them from which flowers, roots or new cladodes can develop. Each cladode has approximately 30 areoles, 3 to 5 cm apart, on each of its faces. The areoles bear tufts of short, barbed bristles and occasionally, on the margins of the cladodes, bear 1 or 2 yellow to brown spines, usually 1 to 4 cm, but up to 6 cm long.

Leaves - small and scale-like, produced at the base of young segments; shed as the segments mature.

Flowers - 5 to 6.5 cm diameter, petals lemon-yellow, borne on a fleshy base on the edge of the cladodes.

Fruit - reddish-purple when ripe, pear shaped, juicy, 4 to 6 cm long, 2.5 to 4 cm diameter, bearing tufts of barbed bristles. Deciduous when ripe.

Seeds - yellow or pale-brown, rounded, 5 mm diameter, found in the centre of the fruit.

Roots - shallow and fibrous.



Figure 1. Erect prickly pear flower.

Properties

Erect prickly pear is a rapidly spreading and resilient plant which can compete strongly with other vegetation and take over areas of land, rendering them unproductive. Heavy infestations can form impenetrable barriers that restrict stock movement. Plants are not usually grazed by livestock because the spines and bristles damage the tongue and lips. They can also cause severe irritation to man. The bristles easily penetrate human skin and are difficult to see and remove.

Thickets of erect prickly pear provide a harbour for pest animals such as rabbits, and the fruit are host to fruit fly. Seed can remain dormant for many years and germinate under very poor conditions. All prickly pear species are drought resistant. Detached cladodes are able to survive long periods of adverse conditions and then regenerate.



Figure 2. Erect prickly pear, showing reddish fruits at the ends of the cladodes.

Dispersal

Seed is spread in the droppings of birds, foxes and other animals. New plants are also formed when segments or fruit drop from the plant and take root. Small segments and fruit can also attach to wool, animal coats and vehicles as well as being carried by floods. Human movement of plant parts during disposal is largely responsible for new outbreaks. Most infestations of prickly pear in Victoria have originated from dumped garden refuse.

Control

Manual Control

When an infestation is small, physical removal of plants and ploughing to bring the roots to the surface, followed by burning of the plants can provide effective control. Care must be taken to collect and treat all segments and fruit. Site inspections should be undertaken annually for several years and any new growth should be treated.

Fire

Plants are not easily burnt so combustible material should form the base of the fire.

Pasture Management

After removal of all parts of the plant, cultivation and establishment of vigorous pasture is essential.

Chemical Control

Registrations of products can change from time to time, and it is therefore important for chemical users to ensure they refer to current information about chemical use patterns and legislative obligations. An Agricultural Chemical User Permit (ACUP) is required for use of 'restricted use' chemicals in Victoria, and there are restrictions on certain chemical uses in Agricultural Chemical Control Areas.

Since 24 July 2007, records of chemical use MUST be made and kept for all agricultural chemical use, not only for 'restricted use' chemicals as was required previously. Chemical users must make within 48 hours of use, and keep for a period of 2 years, records of use specified in the

Agriculture Note AG1212; "Keeping Chemical Use Records (Give me one good reason!)"

For further information on chemical use patterns and/or legislative obligations in relation to chemical use in Victoria call the DPI Customer Service Centre on 136186, or visit the Chemical Standards Branch website:

www.dpi.vic.gov.au/chemicalstandards

Biological Control

The larvae of the cactoblastis moth, *Cactoblastis cactorum* (Bergroth), tunnel into the cladodes and reduce them to a rotting mass. This moth decimated infestations of erect prickly pear in Queensland and northern NSW after it was introduced in the 1920s. *Cactoblastis* has been introduced to Victoria but does not breed rapidly enough to cause more than minor damage, probably because the climate is unsuitable.

A cochineal insect, *Dactylopius opuntiae* (Cockerell), appears as immobile, white silky tufts on the outside of the segments. The tufts are a waxy secretion containing fine filaments that is produced by the insect, which lives beneath them. All species of *Dactylopius* contain the red pigment cochineal, used as a food colouring. This is readily seen when a specimen of the insect is squashed. Different species of cochineal insects are specific to individual species of prickly pear or attack only a limited number of prickly pear species. Cochineal insects feed on the sap of the plant and simultaneously inject a toxic substance. Fruit infested with cochineal is shed prematurely, and when the plant is heavily attacked the cladodes slowly wither and die, and the plant ultimately collapses. Cochineal insects are most effective under warm, dry conditions and can be killed by heavy rain. They have a "crawler" stage which is highly active and may be dispersed by wind. However to control prickly pear infestations cochineal insects need to be manually transferred to uninfested plants. Infested cladodes should be collected from late spring to early autumn using a bucket and long tongs and placed under clumps of plants at intervals of about 10 metres throughout the infestation.

A number of plant pathogens attack erect prickly pear, including bacterial soft rot.

These biological control agents will not eradicate prickly pear but can reduce the size and density of infestations. They may be suitable for use in infestations where other control methods are inappropriate.

For more detailed information on biocontrol contact the Keith Turnbull Research Institute on (03) 9785 0111.

Further advice

- Contact your local landcare or friends group for further assistance and advice.
- Call the DPI/DSE Customer Service Centre on 136 186.
- Contact your local DPI Pest Management Officer for advice on local programs.

- Visit the DPI website at:
<http://www.dpi.vic.gov.au>
and the Weeds Australia website at:
<http://www.weeds.org.au>

References

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- Parsons, W.T. and Cuthbertson, E.G. (1992) *Noxious Weeds of Australia*. Melbourne, Inkata Press.
- Stajsic, V. and Carr, G.W. (1996) Cactaceae. Pp.119-129 in Walsh, N.G. and Entwisle, T.J. (Eds.) *Flora of Victoria Volume 3. Dicotyledons, Winteraceae to Myrtaceae*. Melbourne, Inkata Press.

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