



Declared Plant Policy

This policy relates to natural resources management under section 9(1)(d) of the Landscape South Australia Act 2019 (the Act), enabling co-ordinated implementation and promotion of sound management programs and practices for the use, development or protection of natural resources of the State. Specifically, this policy provides guidance on the use and management of natural resources relating to the prevention or control of impacts caused by pest species of plants that may have an adverse effect on the environment, primary production or the community, as per object s7(1)(f) of the Act.

parkinsonia (*Parkinsonia aculeata*)

Parkinsonia is a thorny tree capable of naturalising in all areas of the State. Around water sources in the pastoral zone it could form large, dense impenetrable thickets that hinder access to water and make mustering difficult.

Management Plan for Parkinsonia

Outcomes

- Maintain production from semiarid pastoral lands and protect the integrity of native vegetation.

Objectives

- Eradicate parkinsonia from South Australia
- Prevent any further distribution and planting of parkinsonia.

Best Practice Implementation

- Eradicate each remnant parkinsonia infestation as found.
- Infestation sites recorded on *Prickle Bush Management Register* and re-inspected at least every two years for seedling regrowth.
- To prevent reintroduction or spread, sale and movement to be prohibited.

Regional Implementation

Refer to regional management plans for further details.

Region	Actions
Alinytjara Wilurara	Prevent entry, destroy if detected
Eyre Peninsula	Prevent entry, destroy if detected
Green Adelaide	Prevent entry, destroy if detected
Hills and Fleurieu	Prevent entry, destroy if detected
Kangaroo Island	Prevent entry, destroy if detected
Limestone Coast	Prevent entry, destroy if detected
Murraylands and Riverland	Prevent entry, destroy if detected
Northern and Yorke	Prevent entry, destroy if detected
South Australian Arid Lands	Protect sites by removal of infestations

Declaration

To implement this policy, parkinsonia is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia. Its entry to South Australia, movement or transport on a public road by itself or as a contaminant, or sale by itself or as a contaminant are prohibited. Notification of infestations is necessary to ensure these are destroyed. Land owners are required to destroy any parkinsonia plants growing on their land. Landscape boards and Green Adelaide are required to destroy plants on road reserves in their regions, and may recover costs from the adjoining land owners.

Parkinsonia is declared in category 1 under the Act, for the purpose of setting maximum penalties and for other purposes. Any permit to allow its entry, road transport or sale can only be issued by the Chief Executive of the Department for Environment and Water or their delegate pursuant to section 197.

Under the *Landscape South Australia (General) Regulations 2020*, Regulation 27 specifies the conditions under which a person is exempt from the operation of section 186 and may transport wool, grain or other produce or goods carrying parkinsonia on public roads, or bring them into the State. Regulation 28 specifies conditions under which a person is exempt from the operation of section 188(2) and may sell wool, grain or other produce or goods carrying parkinsonia. Note that certain produce or goods may be excluded from these general movement and sale exemptions by Gazettal Notice of the Chief Executive, DEW.

The following sections of the Act apply to parkinsonia throughout each of the regions noted below:

Sections of Act	Region								
	AW	EP	GA	HF	KI	LC	MR	NY	SAAL
186(1) Prohibiting entry to area	X	X	X	X	X	X	X	X	X
186(2) Prohibiting movement on public roads	X	X	X	X	X	X	X	X	X
188(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X	X
188(2) Prohibiting sale of contaminated goods	X	X	X	X	X	X	X	X	X
190 Requiring notification of presence	X	X	X	X	X	X	X	X	X
192(1) Land owners to destroy the plant on their properties	X	X	X	X	X	X	X	X	X
192(2) Land owners to control the plant on their properties									
194 Recovery of control costs on adjoining road reserves	X	X	X	X	X	X	X	X	X

Review

Success of the program will be measured by its effectiveness in eradication parkinsonia from South Australia. This policy is to be reviewed by 2025, or in the event of parthenium weed becoming established in South Australia, or any change in its status as a Weed of National Significance.

Weed Risk

Invasiveness

Like mesquite, parkinsonia is not a rapid spreading plant, and usually needs disturbance to get established. It is dispersed by seed, a mature plant producing 5,000 or more seeds in favourable years. These are carried large distances encased within pods that float downstream

from infestations, or in mud attached to animals, footwear or machinery. Around 90% of seed dispersal is by water, especially floodwaters.

About 25% of the seeds have a thin coat and can germinate immediately; the rest have hard seed coats and remain dormant in the soil for years.

Impacts

In some localities parkinsonia plants can coalesce to form large, dense impenetrable thickets that may hinder access to water and make mustering difficult. The thickets shade out ground vegetation, and compete with native regrowth for water and nutrients.

Wetlands can be affected if these thickets dam watercourses, causing erosion and lowering water tables and take over floodplains. They also provide refuges for feral animals, especially pigs.

Potential distribution

Parkinsonia will grow on a wide range of soils, including sand dunes, clays, strongly alkaline or mildly salty soils. It withstands a great deal of heat and can survive in areas that receive less than 30 cm annual rainfall. In South Australia it threatens the pastoral zone where it would extend establish beside bores and dams, extending along creeks, and drainage lines.

Feasibility of Containment

Control costs

Parkinsonia is controlled by dozing or pulling large plants or herbicide treatment, with follow-up over several years to control seedlings. Due to the small, scattered remote infestations the major control cost is in locating and reaching the infested sites.

Persistence

As well as forming a seed bank of long-lived seeds, parkinsonia can regenerate from basal buds after burning or cutting.

Current distribution

Unlike mesquite, parkinsonia has been planted in relatively few localities, particularly in drier areas. Control programs are continuing at Woomera, Leigh Creek North and Port Augusta with an aim of eradication.

State Level Risk Assessment

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use:

Land use	Weed Risk	Feasibility of control	Response at State Level
Grazing - rangeland	medium 84	very high 1	contain spread alert
Native vegetation	low 32	very high 1	monitor

Considerations

Parkinsonia is native to warm-temperate arid climates in North and South America, and was introduced to Australia as an ornamental and shade tree in the late 1800s. In the 20th century it was used by some landholders in the pastoral zone to stabilise creek banks and add nitrogen to the soil. By 2003 it was known from only five small patches or isolated planted trees in townships and stations in the rangelands areas.

Risk assessment indicates containment as a management action. However, since parkinsonia is almost extinct as a wild plant in South Australia, containment is best implemented by destroying the remaining infestations and preventing further establishment. Due to its medium weed risk, very limited occurrence within the State and very high feasibility of control, it is regarded as a State Alert Weed and a high priority surveillance target to increase the likelihood of early detection.

Parkinsonia is one of the twenty Weeds of National Significance, and one of the four prickly bush weeds of concern in semi-arid Australia.

Synonymy

Parkinsonia aculeata L., Sp. Pl. 1:375 (1753)

Taxonomic synonym: *Parkinsonia thornberi* M.E.Jones, Contr. W. Bot. 12: 12 (1908)

Other common names include cina-cina, horse bean, jellybean tree, Jerusalem thorn, Mexican palo verde, palo verde and ratama

References

Agriculture & Resource Management Council of Australia & New Zealand, Australia & New Zealand Environment & Conservation Council and Forestry Ministers (2001) Weeds of National Significance Parkinsonia (*Parkinsonia aculeata*) Strategic Plan. 21 pp. (National Weeds Strategy Executive Committee: Launceston).

Hon David Speirs MP
Minister for Environment and Water

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