



Government
of South Australia

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.

perennial ragweeds (*Ambrosia* spp.)

Perennial ragweeds include several species of deep-rooted perennial that encroach on pasture and are difficult to control. Three species of perennial ragweed have been found in South Australia; almost all the infestations are western ragweed, *Ambrosia psilostachya*.

Management Plan for Perennial Ragweed

Outcomes

- No losses to perennial dryland pasture or irrigated pasture from perennial ragweeds.

Objectives

- Further spread of perennial ragweeds prevented.
- Existing infestations of perennial ragweed contained and controlled.

Best Practice Implementation

- Regional landscape boards that have active programs on perennial ragweed to undertake targeted surveillance to locate infestations.
- Regional landscape boards with active programs to ensure any infestations located on public or private land are controlled.
- Regional landscape boards with active programs to control any infestations located on road reserves, and recover costs from adjoining landholders where appropriate under regional plans.

Regional Implementation

Refer to regional management plans for further details.

perennial ragweed policy

Region	Actions
Alinytjara Wilurara	Limited action
Eyre Peninsula	Limited action
Green Adelaide	Monitor
Hills and Fleurieu	Monitor
Kangaroo Island	Eradicate - Regional alert
Limestone Coast	Destroy infestations - Regional alert
Murraylands and Riverland	Monitor
Northern and Yorke	Contain spread
South Australian Arid Lands	Limited action

Declaration

To implement this policy, perennial ragweed is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia. Its entry to the State, movement or transport on a public road by itself or as a contaminant, or sale by itself or as a contaminant are prohibited. Regional landscape boards and Green Adelaide may require land owners to control perennial ragweed plants growing on their land. These authorities are required to control plants on road reserves in their regions and may recover costs from the adjoining land owners.

Perennial ragweed is declared in category 2 under the Act for the purpose of setting maximum penalties and for other purposes. Any permit to allow its 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 perennial ragweed on public roads. 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 perennial ragweed. 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 perennial ragweed 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									
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									
192(1) Land owners to destroy the plant on their properties									
192(2) Land owners to control the plant on their properties	X	X	X	X	X	X	X	X	X
194 Recovery of control costs on adjoining road reserves	X	X	X	X	X	X	X	X	X

Review

This policy is to be reviewed by 2025 or in the event of a change in one or more regional management plans for perennial ragweed.

Weed Risk

Invasiveness

Perennial ragweed appears to have poor mechanisms for dispersal and establishment at new sites. It is dispersed by seeds, which have hooks allowing them to attach to livestock and produce. Seed germinates in autumn and establishes an extensive root system in the first winter. Plants continue to grow and flower into the summer but die back to the roots in dry seasons.

Individual colonies increase in size by the growth of rhizomes near the soil surface. Fragments of rhizomes or roots carried on machinery may be an alternate means of local spread. Although established in South Australia for over 80 years, it has remained restricted to no more than 20 widely separated localities, and no new infestations have been recorded in the last 30 years.

Impacts

Its effects on agricultural production have not been documented, but it is assumed to compete with pastures and potentially with crops as it does in other parts of the world.

The plant also has potential to cause allergies, as it is a major cause of late summer hay fever in California.

It is not a weed of agriculture in its native North America, but is seldom eaten by livestock and is believed to be unpalatable.

Potential distribution

Ambrosia psilostachya is native to grasslands and grassy woodlands on a wide range of soil types. Annual precipitation ranges from 114 to 880 mm with 60 to 80 percent occurring during the summer growing season. It grows in both drylands and wetlands.

Feasibility of Containment

Control costs

Perennial ragweed is difficult to control, requiring repeated application of herbicides such as triclopyr. It has a capacity to regenerate from its perennial root system.

Persistence

Perennial ragweeds are deep-rooted perennials, and are therefore not controlled by routine maintenance of perennial pastures. Unless addressed by a targeted control program they may persist indefinitely.

Surface rhizomes of western ragweed may be killed during a fire; however, the plant also has deep-seated rhizomes which would survive most fires.

Current distribution

Perennial ragweeds occur as small, rare, scattered infestations. The largest infested area is the western suburbs of metropolitan Adelaide, where patches have been reported in Findon, Seaton, West Lakes and Woodville.

There were formerly two large infestations in the Murray Mallee, the larger was over 400 ha in 1984 but had been reduced to 5% of its previous abundance by 1990 and cannot be relocated. Several other outbreaks mostly less than 0.5 ha in the Riverland, Murray Mallee, Lower Murray and Lower North were eradicated by control programs in the 1980s. However there are more recent herbarium collections from the Lower Murray (Swan Reach) and the Limestone Coast (Mt Burr, Naracoorte and Mount Gambier).

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 - southern	high 152	very high 2	destroy infestations alert
Irrigated pastures	high 171	very high 1	destroy infestations alert
Vegetables	low 17	very high 1	monitor
Perennial horticulture	low 22	very high 2	monitor
Urban	negligible 11	very high 1	monitor

Considerations

A species of perennial ragweed, *Ambrosia psilostachya*, was present in South Australia before declaration in 1955 in response to concerns by irrigators in the District Council of Berri. This declaration soon ended when the *Weeds Act 1956* came into force, but perennial ragweeds were again declared in 1979 under the *Pest Plants Act 1975* following a request from the Murraylands Pest Plant Board.

Its spread over the last 60 years has been much less that was once feared. Due to its very limited distribution, risk assessment at State level indicates that perennial ragweed should still be treated as an alert weed, with destruction of infestations in pasture, and monitoring in other land uses.

As perennial ragweeds are absent from Kangaroo Island, they are treated as a regional alert with a strategy of eradication in the event of an incursion to the island being found.

The Northern and Yorke region aims to contain spread, and the Limestone Coast aims to destroy the remaining infestations. As it has not been found on Eyre Peninsula, action there is limited to response in the event of a future incursion.

perennial ragweed policy

Infestations in the Green Adelaide, Hills and Fleurieu, and Murraylands and Riverland regions are monitored. As perennial ragweed is not a threat to the rangelands, only limited action is needed in the Alinytjara Wilurara and South Australian Arid Lands regions.

The provision under the Act for enforced control is retained for all regions so that incursions of perennial ragweed can be controlled when found.

Synonymy

Ambrosia L., all species. The following species of the genus have been recorded in South Australia:

Ambrosia psilostachya DC., Prodr. 5: 526 (1836).

Taxonomic synonyms:

Ambrosia coronopifolia Torrey & Gray, Fl. N. Amer. 2(2): 291 (1842).

Ambrosia rugelii Rydb., N. Amer. Fl. 33 19 (1922).

Common names include western ragweed and cuman ragweed.

Ambrosia tenuifolia Spreng., Syst. Veg. 3:851 (1836).

Common name is lacy ragweed.

Ambrosia confertiflora DC., Prodr. 5: 526 (1836).

Common name is weakleaf burr ragweed.

References

Montagnani, C., Gentili, R., Smith, M., Guarino, M. F. & Citterio, S. (2017) The worldwide spread, success, and impact of ragweed (*Ambrosia* spp.). *Critical Reviews in Plant Sciences* 36: 139-178.

Hon David Speirs MP
Minister for Environment and Water

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