



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.

cutleaf mignonette (*Reseda lutea*)

Cutleaf mignonette is a deep-rooted perennial weed of rotational broadacre cropping and pasture. It is widely scattered in southern South Australia but does not occur in all areas suitable for its establishment.

Management Plan for Cutleaf Mignonette

Outcomes

- Minimise losses to agriculture due to cutleaf mignonette.

Objectives

- Control and contain cutleaf mignonette infestations in accordance with regional management plans.
- Prevent the spread of cutleaf mignonette into uninfested areas of the State.
- To prevent the reinfestation of areas cleaned of cutleaf mignonette

Best Practice Implementation

- Landowners to control infestations on their lands.
- Regional landscape boards and Green Adelaide to control priority infestations on road reserves.
- Regional landscape boards and Green Adelaide to enforce control where necessary to protect agricultural land from local spread of cutleaf mignonette.
- To assist local control programs, the sale and movement of cutleaf mignonette is prohibited.

Regional Implementation

Refer to regional management plans for further details.

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

Declaration

To implement this policy, cutleaf mignonette is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia. Its 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 cutleaf mignonette plants growing on their land. These authorities are responsible for the control of infestations on road reserves in their regions and may recover costs from the adjoining land owners.

Cutleaf mignonette 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 (DEW) 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 cutleaf mignonette 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 cutleaf mignonette. 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 cutleaf mignonette 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 cutleaf mignonette.

Weed Risk

Invasiveness

Cutleaf mignonette produces large amounts of seed that remain viable for 3-4 years and are spread in agricultural produce, vehicles, machinery, livestock and fodder. The extensive roots are succulent and are able to regenerate from fragments when spread by cultivation. It can establish in vigorously growing crops and pastures

Impacts

Cutleaf mignonette is an effective competitor in cereal crops, and can severely reduce yields and the cost of control is expensive. A heavy infestation in a cereal crop can reduce yield by up to 60%. It has been estimated that the cost to the South Australian grains industry due to cutleaf mignonette infestations is approximately \$2.2million per annum.

The seed is an unwanted contaminant of broad acre crops and hard to clean from harvested grain. Crops contaminated with cutleaf mignonette can be downgraded in quality resulting in economic losses.

It also acts as an alternative host of the watermelon mosaic virus and the cucumber mosaic virus.

Cutleaf mignonette is of some use as fodder on land that is too poor for sown pastures to be economically viable. However, it is unpalatable and is only grazed when no other feed is available.

Potential distribution

Cutleaf mignonette grows in areas receiving between 225 mm and 625 mm of rainfall annually, surviving droughts and the levels of frost found in South Australia. It is able to grow on a range of soil types from deep sands to mallee clay loams and is well adapted to calcareous soils with a pH of 8 or higher. These conditions prevail throughout much of the cereal growing areas of South Australia.

Feasibility of Containment

Control costs

Some chemical control methods are available for cereal crops and pastures. Shoots of cutleaf mignonette are easily killed, but translocation of herbicides through the root system is limited and regrowth from the roots occurs. In heavily infested paddocks, the best available herbicide treatments only suppress the weed and yield reduction occurs until the infestation is controlled by repeated spraying. Grazing and mowing are not successful in controlling this weed because it can regrow from the deep root system.

Persistence

The root system of cutleaf mignonette typically extends 2 metres deep. This enables established infestations to survive through drought years, and spread within a paddock by root fragments if cultivated. Plants emerge from mid to late winter, flower in spring but often remain green into summer as they tap water from the subsoil.

Current distribution

Cutleaf mignonette is widely naturalised in the cereal growing belt and southern regions of South Australia.

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-south	Medium 39	High 30	Protect sites
Crop-Pasture rotation	High 162	Medium 42	Protect sites
Grazing-rangeland	Negligible 2	Very High 2	Monitor

Considerations

Cutleaf mignonette occurs on coastal vegetation in Europe and the Mediterranean, and was brought to South Australia in ships' ballast during the 19th century. Its present distribution in South Australia reflects opportunities for seed transport rather than its ecological limits. It has a potential to become a significant economic problem for primary production and sustainable land use for agriculture in areas where it is not yet established.

Risk assessment indicates site protection as the action in rotational cropping and southern permanent pastures. While sale and movement are prohibited uniformly across the State, regional actions vary according to the land uses in each region.

Cutleaf mignonette is absent or localised in the Alinytjara Wilurara, Kangaroo Island, and Murraylands and Riverland regions, where infestations are destroyed. In the Eyre Peninsula region, spread is contained by control of infestations. In the Limestone Coast region, sites are protected and in the Northern and Yorke region the weed is managed. This species is less significant in the Green Adelaide and Hills and Fleurieu regions, where sites are managed, and the South Australian Arid Lands where only limited action is necessary.

Synonymy

Reseda lutea L., Sp. Pl. 1:449 (1753)

Taxonomic synonyms:

Reseda benitoi Sennen, Bol. Soc. Arag. 15: 263 (1916)

Reseda clausa Muell.-Arg., Bot. Zeit. 14:39 (1856)

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Reseda difformis Moench, Suppl. Meth. Pl. 22 (1802)
Reseda fluminensis Simonkai, Magyar Nov. Lapok 12:19 (1888)
Reseda gracilis Tenore, Fl. Neapol. Prodr. App. V : 15 (1826)
Reseda macedonica Formánek, Verh. Naturf. Ver. Brünn 34: 332 (1895)
Reseda mediterranea L., Mant. Alt. 564 (1771)
Reseda mucronata Tineo, Cat. Pl. Hort. Panorm. 280 (1827)
Reseda nainii Maire, Bull. Soc. Hist. Afr. Nord 14:126 (1923)
Reseda neglecta Muell.-Arg., Mon. Res. : 178 (1857)
Reseda othryana Form., Verh. Naturf. Ver. Brünn 35: 190 (1897)
Reseda podolica Rehm., Verh. Naturf. Vereins Brünn 10: 55 (1872)
Reseda ramosissima Pourr. ex Willd., Enum. Pl. 1: 499 (1809)
Reseda truncata Fisch. & C.A.Mey., Index Seminum [St. Petersburg] 4: 45 (1838)
Reseda vinyalsi Sennen, Diagn. Nouv. Pl. Esp. Mar. 302 (1936)
Reseda vivanii P.Monts., Bull. Soc. Bot. France 120: 47 (1973)
Reseda vulgaris Mill., Gard. Dict. (1798)

Other common names include gelbe wau, wild mignonette and yellow mignonette.

References

Heap, J., Willcocks, M. & Kloot, P. (1995) *Reseda lutea* L. In Groves, R.H. et al. (eds) *The Biology of Australian Weeds* 1: 203-216.

Hon David Speirs MP
Minister for Environment and Water

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