



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.

muskweed (*Myagrurn perfoliatum*)

Muskweed is an annual winter weed of broad acre crops, in which it is significant as a seed contaminant. It has a limited distribution in South Australia.

Management Plan for muskweed

Outcomes

- Minimise losses to cereal, grain legume and canola production from muskweed.

Objective

- Prevent further spread of muskweed between properties as a seed contaminant.

Best Practice Implementation

- Regional landscape boards and Green Adelaide to prevent movement of contaminated seed as detected in accordance with regional management plans.

Regional Implementation

Refer to regional management plans for further details.

Region	Actions
Alinytjara Wilurara	Limited action
Eyre Peninsula	Prevent entry or sale
Green Adelaide	Monitor
Hills and Fleurieu	Monitor
Kangaroo Island	Prevent entry or sale
Limestone Coast	Prevent entry or sale (Regional alert)
Murraylands and Riverland	Prevent entry or sale
Northern and Yorke	Contain spread
South Australian Arid Lands	Limited action

Declaration

To implement this policy, muskweed 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.

Muskweed is declared in category 3 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 regional landscape board or Green Adelaide 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 muskweed 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 muskweed. Note that certain produce or goods may be excluded from these general movement and sale exemptions by Gazettal Notice of the Chief Executive of the Department for Environment and Water.

The following sections of the Act apply to muskweed 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									
192(1) Land owners to destroy the plant on their properties									
192(2) Land owners to control the plant on their properties									
194 Recovery of control costs on adjoining road reserves									

Review

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

Weed Risk

Invasiveness

Muskweed is an annual and is spread as seed, primarily in seed of annual winter crops for sowing. Its seed production is low, compared to other annual crucifer weeds.

Impacts

Muskweed competes strongly with cereals and winter annual broadleaf crops such as chickpeas, canola, lupins, faba beans, field peas and lentils, reducing yields by up to 50%. It

is also a contaminant reducing value and marketability of seed and hay, and may cause blockages of machinery during harvest.

Potential distribution

Muskweed is adapted to alkaline clay soils, where it can become the main crucifer weed in a crop, analogous to the role of wild radish on lighter soils. Its potential range would include the southern half of the arable farming zone on southern Eyre Peninsula, Yorke Peninsula, the mid-north and the Limestone Coast.

Feasibility of Containment

Control costs

Muskweed can be difficult and expensive to control once established in cropping land, where both an early post-emergent spray and late selective spray-topping may be necessary each year. There are few herbicides registered for cereals or fallows and it is tolerant to many herbicides commonly-used in these situations. There are no herbicide registrations for selective control in broadleaf crops.

Persistence

The seedbank of muskweed lasts up to 10 years with seed being found up to 40 cm deep in self-mulching soils. It has staggered germination throughout the growing season, allowing it to re-establish after early post-emergent herbicide treatments. The weed is easily recognised but late germinations may not be noticed in a standing crop.

Current distribution

Muskweed is scattered in the Limestone Coast and Northern and Yorke regions, and also recorded from Eyre Peninsula. It is not present on most properties in these regions.

State Level Risk Assessment

Assessment using the PIRSA Weed Risk Assessment protocol 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
Crop-pasture rotation	medium 45	high 18	protect sites

Considerations

Muskweed is native to Europe, north Africa and western Asia. It is also established in Victoria, and has been recorded from NSW and the Queensland border.

Sale of seeds of muskweed, as a contaminant of seeds for sowing, was prohibited under the former *Seeds Act, 1979*. When this Act was repealed in 2002, the prohibition was continued under section 54 of the former *Animal and Plant Control (Agricultural Protection and Other Purposes) Act, 1986* and subsequently under section 177 of the *Natural Resources*

muskweed policy

Management Act, 2004. The present declaration under the *Landscape South Australia Act 2019* continues this prohibition.

Risk assessment indicates protect sites as the management action; this is implemented by containing spread through the prohibition on movement and sale.

Synonymy

Myagrum perfoliatum L., Sp. Pl. 2: 640 (1753).

Nomenclatural synonym: *Rapistrum perfoliatum* (L.) Bergeret, Phyt. 3: t. 167

Taxonomic synonym: *Crucifera myagrum* E.H.L.Krause, Deutschl. Fl. (Sturm), ed. 2. 6: 122. (1902)

Other common names include birds-eye cress and mitre cress.

Hon David Speirs MP Minister for Environment and Water Date: 28 March 2021
