



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.*

### hoary cress (*Lepidium draba*)

Hoary cress is a perennial herb with an extensive, deep horizontal root system. Infestations are difficult to control. Although already present in most agricultural regions, it has a major potential to spread further and cause losses in the better cereal growing areas.

### Management Plan for Hoary Cress

#### Outcomes

- Minimise the impacts of hoary cress on cropping, pasture, and irrigated horticultural enterprises in South Australia.

#### Objectives

- Minimise new infestations of hoary cress in previously uninfested areas.
- Contain established infestations in accordance with regional management plans.
- Prevent the reinfestation of areas cleared of hoary cress.

#### Best Practice Implementation

- Regional landscape boards and Green Adelaide to develop and implement a plan to ensure infestations on roadsides, public or private land are contained in accordance with regional management plans.
- Regional landscape boards and Green Adelaide to prevent the movement of contaminated goods or produce from infested properties.

#### Regional Implementation

Refer to regional management plans for further details.

## hoary cress policy

Region	Actions
Alinytjara Wilurara	Limited action – not present
Eyre Peninsula	Protect sites
Green Adelaide	Protect sites
Hills and Fleurieu	Protect sites
Kangaroo Island	Protect sites – not present
Limestone Coast	Contain spread
Murraylands and Riverland	Contain spread
Northern and Yorke	Monitor
South Australian Arid Lands	Limited action – not present

### Declaration

To implement this policy, hoary cress is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia so that movement of contaminated seed or other produce can be prevented. Its movement or transport on a public road, by itself or as a contaminant, or sale by itself or as a contaminant are prohibited. Green Adelaide and regional landscape boards in all regions except SA Arid Lands may require landowners to control hoary cress 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.

Hoary cress 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 hoary cress 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 hoary cress. 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 hoary cress 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 goods or produce carrying the plant	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	
194 Recovery of control costs on adjoining road reserves	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 any regional management plan for hoary cress.

## **Weed Risk**

### Invasiveness

It is relatively slow-spreading if left unaided, and produces few viable seeds. Hoary cress will readily form new populations from broken pieces of lateral roots and shoots.

Early stage infestations of hoary cress exhibit a rapid rate of expansion. New infestations are often caused by contaminated goods or produce (i.e. grains/seeds, soil movement). They tend to be invasive in nature, although established infestations appear to exhibit slower rates of expansion. Hoary cress is well adapted to fallows, and is most abundant in paddocks that are left in summer fallow.

Seed is spread in fodder, including pasture and cereal hay, and in screenings from cereal crops.

### Impacts

Cereal crops may experience significant yield losses where dense infestations of hoary cress are present. Pasture quality is degraded, and fodder and small seed products (egg lucerne and clover) may be contaminated by hoary cress seed.

Although juvenile hoary cress may be palatable, it has sometimes been suspected of causing stock poisoning in South Australia.

Hoary cress affects crop-pasture production and results in yield and quality losses, and is a contaminant of fodder and soil products. It is difficult to clean out of lucerne and clover seed, and ripens at approximately just prior to first hay cuts. Juvenile hoary cress may be palatable to stock, although it is of negligible nutritional value.

Once established, hoary cress forms dense pure stands and is very difficult to eradicate. Paddocks that are frequently fallowed may be more susceptible to infestations of hoary cress.

### Potential distribution

Many parts of South Australia are free of hoary cress infestations and are susceptible. Cereal cropping areas are open to further infestation although the impact of the weed may not be high in these systems.

## **Feasibility of Containment**

### Control costs

Cost effective herbicide regimes are available for the short term control of hoary cress. Long term eradication is often cost prohibitive, and technically difficult. A combination of cultural, herbicidal and mechanical measures may be required to reduce the impacts of hoary cress on production, which may become expensive.

Management of hoary cress is most commonly achieved through a combination of herbicides and introduction or encouragement of competitive species.

### Persistence

Studies have shown that the viability of hoary cress seeds in the field is greatly reduced after three years.

Hoary cress can readily re-establish after eradication measures via regeneration from its root system. Follow-up control is required for at least 2-3 years to ensure regeneration does not occur.

Where irrigation and cultivation is absent and competition is present, hoary cress is less persistent.

### Current distribution

Hoary cress has been recorded in most regions of South Australia, with the exception of Alinytjara Wilurara. Most are small localised infestations, with the Northern and Yorke region noting spreading/scattered infestations in some locations.

### **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:

<b>Land use</b>	<b>Weed Risk</b>	<b>Feasibility of control</b>	<b>Response at State Level</b>
Crop-pasture rotation	low 22	very high 14	Monitor
Vegetables	medium 39	very high 11	contain spread

### **Considerations**

Hoary cress was first detected in SA in 1904, and by the 1930s was considered a major threat to agriculture. In the period 1950 to 1975 it almost disappeared as a problem in this State due to the use of phenoxy-acid herbicides and less frequent summer fallowing. However, since 1970 it has become more abundant at some sites due to the switch to pre-emergent herbicides that control the major annual weeds but not hoary cress, and the decline in pasture phases in rotation.

Risk assessment indicates management actions at State level of monitoring in crop-pasture rotations, while containing spread on land used for vegetable growing. Regional management plans vary according to regional land uses and the presence of the weed.

The Limestone Coast and Murraylands and Riverland regions aim to contain spread. Eyre Peninsula Green Adelaide and the Hills and Fleurieu regions protect sites, as does Kangaroo Island where hoary cress is now believed to be extinct. The weed is monitored in the Northern and Yorke regions. Only limited action is required in the Alinytjara Wilurara and South Australian Arid Lands regions, where hoary cress does not occur.

## Synonymy

*Lepidium draba* L., Sp. Pl. 2: 645 (1753)

Nomenclatural synonyms:

*Cardaria draba* (L.) Desv., J. Bot. Agric. 3: 163 (1815)

*Cochlearia draba* (L.) L., Syst. Nat. ed. 10 2: 1129 (1759)

*Nasturtium draba* (L.) Crantz, Cl. Crucif. Emend. 81 (1769)

Taxonomic synonyms:

*Lepidium arvense* Mill., Gard. Dict. ed. 8. n. 2. (1768)

*Lepidium drabifolium* St.-Lag., Ann. Soc. Bot. Lyon 7: 129 (1880)

Other common names include heart-pod hoary cress, hoary pepperwort, Thanet cress, whitetop, whiteweed and whitlow pepperwort.

Hon David Speirs MP

**Minister for Environment and Water**

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