



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.

khaki weed (*Alternanthera pungens*)

Khaki weed is a prostrate summer-growing perennial with spiny burrs. It is a notifiable alert weed with incursions targeted for destruction, and remains limited to isolated patches in South Australia.

Management Plan for Khaki weed

Outcomes

- No losses to the amenity value of recreational land or pasture production due to khaki weed.

Objectives

- Detect and destroy all khaki weed infestations.
- Prevent further spread and establishment in South Australia.

Best Practice Implementation

- Regional landscape boards and Green Adelaide to promote awareness of alert weeds including khaki weed.
- Landowners to report infestations to regional landscape boards or Green Adelaide.
- Regional landscape boards and Green Adelaide to inspect camping grounds, ovals, roadhouses and roadside reserves for khaki weed.
- Land owners to destroy infestations growing on land they occupy.
- Regional landscape boards and Green Adelaide to ensure infestations on public or private land are destroyed.
- Regional landscape boards and Green Adelaide to destroy infestations on road reserves as detected.

Regional Implementation

Refer to regional management plans for further details.

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Region	Actions
Alinytjara Wilurara	Destroy infestations
Eyre Peninsula	Destroy infestations
Green Adelaide	Destroy infestations
Hills and Fleurieu	Destroy infestations
Kangaroo Island	Destroy infestations
Limestone Coast	Destroy infestations
Murraylands and Riverland	Destroy infestations
Northern and Yorke	Destroy infestations
South Australian Arid Lands	Destroy infestations

Declaration

To implement this policy, khaki weed is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia so that movement of contaminated material can be prevented. 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.

In all regions, land owners are required to destroy khaki weed plants growing on their land. Notification of infestations is necessary to ensure these are destroyed. Landscape boards and Green Adelaide are required to destroy plants growing on road reserves in their regions, and may recover costs from the adjoining land owners.

Khaki weed 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 khaki weed 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 khaki weed. 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 khaki weed 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

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

Weed Risk

Invasiveness

Khaki weed has high seed production. Seed is carried in prickly burrs that attach to livestock, clothing, machinery and vehicle tyres. Seeds may also spread by water and as a contaminant in wool, hay and grain.

This weed colonises bare or disturbed areas and occasionally establishes in unsown dryland pastures. Infestations also increase in size through the long prostrate stems rooting at the nodes.

Impacts

The major problems currently caused by khaki weed are due to its spiny burrs. It establishes in parks, lawns and ovals especially if these are watered in summer, reducing their amenity value. The burrs cause mechanical damage to the feet and mouths of stock; they are recorded as vegetable fault in wool and have been associated with dermatitis in humans.

However, the land use at greatest risk is irrigated pasture. Khaki weed is a competitor in pasture, and has the potential to become a more significant weed under irrigation than in dryland permanent pasture. It is suspected of poisoning livestock and causing a skin ailment in cattle.

Potential distribution

Khaki weed is native to tropical and subtropical regions of Central and South America. In Australia it is recorded as a weed in similar climates and mainly on light soils in areas. Although growth is proportional to summer rainfall, experience shows khaki weed can establish anywhere across the agricultural zone of South Australia and in the Adelaide area.

Feasibility of Containment

Control costs

Small infestations can be successfully controlled by hand-hoeing ensuring the entire tap root is removed. The plants, and any seeds that have formed, must be disposed of by burning. Larger infestations are sprayed with an appropriate herbicide.

Cultivation can be an effective control technique if it is deep enough to destroy the tap root, but may also spread root fragments, which produce new plants requiring follow-up treatments.

In pasture, replacement of khaki weed with competitive pasture species will prevent reinfestation.

Persistence

Khaki weed is a difficult plant to control as it is deep-rooted, the tap root also allowing it to survive periods of drought. It also forms a soil seedbank under infestations, with seed surviving for more than five years.

Current distribution

Records of khaki weed infestations are scattered in the Eyre Peninsula, Northern and Yorke, Kangaroo Island, Limestone Coast, and Murraylands and Riverland regions, extending as far north as Marla in the pastoral zone. Many of these have been eradicated but its distribution is maintained by annual incursions on vehicles. It is well-established elsewhere in Australia, notably in Queensland, New South Wales and the Northern Territory.

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
Irrigated pasture	medium 98	very high 1	contain spread
Grazing - southern	medium 51	very high 3	contain spread
Urban	low 25	very high 2	monitor
Perennial horticulture	low 34	very high 2	monitor
Vegetables	low 13	very high 11	monitor

Considerations

Khaki weed was first recorded in South Australia in 1957. Risk assessment indicates containment as the action at State level to protect pastures from khaki weed. As it is still scattered and localised, destruction of new infestations is the most effective approach to containment.

Synonymy

Alternanthera pungens Kunth, Nov. Gen. Sp. 2(7): 206 (1818)

Nomenclatural synonyms:

Illecebrum pungens (Kunth) Spreng., Syst. Veg. 1: 820 (1824)

Telanthera pungens (Kunth) Moq., Prodr. 13(2): 371 (1849)

Taxonomic synonyms:

Achyranthes nivea Aiton, Hort. Kew. 1: 286 (1789)

Achyranthes repens L., Sp. Pl. 1:205 (1753)

Alternanthera repens (L.) Kuntze, Revis. Gen. Pl. 2: 536, 540 (1891)

Alternanthera achyrantha R.Br., Prodr. 417 (1810).

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Alternanthera echinata Sm. in Rees, Cyclop. Suppl. n.10. (1818)

Other common names include creeping chaffweed, khaki burr, mat chaff-flower and washerwoman.

Hon David Speirs MP

Minister for Environment and Water

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