

Declared Plant Policy

under the Natural Resources Management Act 2004



serrated tussock (*Nassella trichotoma*)

Serrated tussock is an unpalatable perennial grass that superficially resembles native *Austrostipa* species and invades unsown pastures or native vegetation with a grassy understorey. It is not yet naturalised in South Australia.

Management Plan for Serrated Tussock

Outcomes

- Pasture and native vegetation protected from degradation by unpalatable invasive grasses.

Objectives

- Prevent the establishment of serrated tussock in South Australia.

Implementation

- Surveillance for infestations as part of routine inspection by NRM authorities, particularly in high risk regions.
- Any infestations found to be delimited, contained and destroyed.
- Movement of machinery or fodder from an infested property to be monitored to contain any dispersal.
- NRM authorities and Biosecurity SA to raise landowners' awareness of serrated tussock.

Regional Implementation

Refer to regional management plans for further details.

NRM Region	Actions
Adelaide and Mount Lofty Ranges	prevent entry, destroy if detected
Alinytjara Wilurara	prevent entry, destroy if detected
Eyre Peninsula	prevent entry, destroy if detected
Kangaroo Island	prevent entry, destroy if detected
Northern and Yorke	prevent entry, destroy if detected
South Australian Arid Lands	prevent entry, destroy if detected
South Australian Murray Darling Basin	prevent entry, destroy if detected
South East	prevent entry, destroy if detected

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Declaration

To implement this policy, serrated tussock is declared under the *Natural Resources Management Act, 2004* throughout the whole of the State of South Australia. The movement or transport of the plant on a public road by itself or as a contaminant, its entry to South Australia, or sale by itself or as a contaminant are prohibited. Notification of infestations is necessary to ensure these are destroyed. Land owners are required to destroy any serrated tussock plants growing on their land. NRM authorities are required to destroy plants on road reserves, and may recover costs from the adjoining land owners.

Serrated tussock is declared in category 1 under the Act, for the purpose of setting maximum penalties and for other purposes. Any permit to allow its movement or sale can only be issued by the Chief Officer pursuant to section 188. Under the *Natural Resources Management (General) Regulations 2005*, the transport or movement of grain for milling or wool for cleaning is exempt from the operation of sections 175 and the sale of wool or grain is exempt from section 177(2) if at the time of the sale the person believes on reasonable grounds that the purchaser will remove the plant from the wool or grain before any re-sale.

The following sections of the Act apply to serrated tussock throughout each of the NRM regions noted below:

Sections of Act	Region							
	AMLR	AW	EP	KI	NY	SAAL	SAMDB	SE
175(1) Prohibiting entry to area	X	X	X	X	X	X	X	X
175(2) Prohibiting movement on public roads	X	X	X	X	X	X	X	X
177(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X
177(2) Prohibiting sale of contaminated goods	X	X	X	X	X	X	X	X
180 Requiring notification of infestations	X	X	X	X	X	X	X	X
182(1) Landowners to destroy the plant on their properties	X	X	X	X	X	X	X	X
182(2) Landowners to control the plant on their properties								
185 Recovery of control costs on adjoining road reserves	X	X	X	X	X	X	X	X

Review

This policy is to be reviewed by 2020, in the event of serrated tussock becoming established as a weed in SA, or in the event of any change in its status as a Weed of National Significance.

Weed Risk

Invasiveness

Serrated tussock spreads by seeds, which are produced abundantly in stalked panicles and become attached to animals or are blown by the wind. They could also be dispersed in contaminated produce, notably hay, or on vehicles and clothing.

Impacts

Serrated tussock forms dense infestations in pasture, native grasslands and woodlands where it can exclude desirable species. It has low feed value to stock, and is not palatable so tends to increase under high grazing pressure.

Potential distribution

Climate matching suggests that a large part of the southern agricultural regions of South Australia is suitable habitat for serrated tussock, which is now widespread across similar habitats in western Victoria. It would grow in grasslands, perennial pastures and grassy woodlands.

Feasibility of Containment

Control costs

Permits exist for the use of several herbicides for the destruction of serrated tussock incursions. Herbicide control would be labour intensive, as these are non-selective controls and it would be necessary to repeat the treatment over several years and search for remaining plants. If the weed became established, control would depend on management of infested properties to prevent spread and replace with desirable vegetation over a long period. Herbicide resistance occurs in infestations in NSW due to over-reliance on registered chemicals.

Persistence

Eradication of an incursion would be slowed by the long life of seeds in the soil and the difficulty of detecting all serrated tussock plants among other grasses.

Current distribution

Serrated tussock does not occur wild in South Australia, but is naturalised in Victoria, New South Wales and Tasmania.

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	very high 202	very high 1	eradicate
Native vegetation	low 38	very high 1	monitor

Considerations

Serrated tussock is one of the Weeds of National Significance, which are subject to a uniform prohibition on sale in all jurisdictions as agreed by the Natural Resource Management Ministerial Council. In line with the national strategy on serrated tussock, sale of the plant is prohibited in South Australia as in other jurisdictions. There is no demand for this plant, and prohibiting its sale it does not inconvenience the nursery trade.

Risk assessment indicates eradication as the management action; this is best implemented by preventing its entry to South Australia or its establishment here. Serrated tussock is found in

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western Victoria, raising the risk of movement of its seeds across the border on trains or road vehicles. Although it is not commercially grown, it has twice been found and destroyed in gardens at Salisbury and Blewitt Springs where it had either been planted as an ornamental grass or allowed to remain after appearing by accident due to its resemblance to such species as Mexican feathergrass. Because of its very high weed risk, apparent absence from the State and very high feasibility of control, serrated tussock is regarded as a State Alert Weed and a high priority surveillance target to increase the likelihood of early detection.

Synonymy

Nassella trichotoma (Nees) Hack. ex Arechav., Anales Mus. Nac. Montevideo 1: 336 (1896).

Basionym: *Stipa trichotoma* Nees, Fl. Bras. Enum. Pl. 2: 375. (1829)

Nomenclatural synonyms:

Agrostis trichotoma Nees ex Trin., Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér.6, Sci. Math., Seconde Pt. Sci. Nat. 4: 338 (1841).

Caryochloa trichotoma (Nees) Kuntze, Revis. Gen. Pl. 2: 765. (1891)

Oryzopsis trichotoma (Nees) Druce, Rep. Bot. Exch. Cl. Brit. Isles 1909, 2:420 (1910).

Urachne trichotoma (Nees) Trin., Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér.6, Sci. Math., Seconde Pt. Sci. Nat. 3: 124 (1835)

Taxonomic synonym:

Piptatherum macrantherum Nees ex Steud., Index Kew. 2(3): 543 (1894)

References

Agriculture & Resource Management Council of Australia & New Zealand Australia & New Zealand Environment & Conservation Council and Forestry Ministers (2000) 'Weeds of National Significance Serrated Tussock (*Nassella trichotoma*) Strategic Plan.' (National Weeds Strategy Executive Committee: Launceston)

Osmond, R., Verbeek, M., McLaren, D.A., Michelmore, M., Wicks, B., Grech, C.J. & Fullerton, P. (2008) 'Serrated Tussock National Best Practice Management Manual'. Victorian DPI: Melbourne)

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