Declared Plant Policy

Government of South Australia

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.*

Mexican feathergrass (*Nassella tenuissima*)

Mexican feathergrass is a perennial tussock grass resembling the native spear grasses, *Austrostipa* species. It is known to have been cultivated in South Australia as a garden ornamental.

Management Plan for Mexican feathergrass

Outcomes

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

Objectives

- To prevent the establishment of Mexican feathergrass in South Australia.

Best Practice Implementation

- Inspection of gardens and nurseries for Mexican feathergrass as part of routine surveillance by regional landscape boards and Green Adelaide.

- Destruction of any infestations found in accordance with regional management plans.

Regional Implementation

Refer to regional management plans for further details.

Region	Actions
Alinytjara Wilurara	Prevent entry or sale; destroy if detected
Eyre Peninsula	Prevent entry or sale; destroy if detected
Green Adelaide	Prevent entry or sale; destroy if detected
Hills and Fleurieu	Prevent entry or sale; destroy if detected
Kangaroo Island	Prevent entry or sale; destroy if detected
Limestone Coast	Prevent entry or sale; destroy if detected
Murraylands and Riverland	Prevent entry or sale; destroy if detected
Northern and Yorke	Prevent entry or sale; destroy if detected
South Australian Arid Lands	Prevent entry or sale; destroy if detected

Declaration

To implement this policy, Mexican feathergrass 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. Notification of infestations is necessary to ensure these are destroyed. Land owners are required to destroy any Mexican feathergrass plants growing on their land. Landscape boards and Green Adelaide are required to destroy plants on road reserves in their regions, and may recover costs from the adjoining land owners.

Mexican feathergrass 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 Mexican feathergrass 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 Mexican feathergrass. 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 Mexican feathergrass throughout each of the regions noted below:

Region / Sections of Act	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 Mexican feathergrass becoming established as a weed in South Australia.

Weed Risk

<u>Invasiveness</u>

Mexican feathergrass has very high seed production, and its small seeds are chiefly dispersed by wind or attached to animals. They have large curved awns that often intertwine to form balls that can roll before the wind like tumbleweeds.

Impacts

Mexican feathergrass is an unpalatable grass that can become dominant under continual heavy grazing pressure, greatly reducing the productivity of pasture in a similar way to serrated tussock. By replacing native grasses and other herbs, it may adversely affect native grasslands and grassy woodlands.

It is also expected to behave in a similar way to serrated tussock in urban areas, by invading roadsides, parks, waste ground, industrial sites and amenity areas. Heavy build-ups of dry biomass from these weedy grasses can increase fire risk and hazard.

Potential distribution

Mexican feathergrass is adapted to climates matching the southern part of the agricultural zone in SA. It has wider ecological amplitude than serrated tussock and would extend further into drier climate zones. In other parts of the world it grows in grasslands, open rocky slopes, open dry woodlands and highlands up to 2900 metres altitude.

It tolerates a wide range of soil types from sands to heavy clay soils, as long as the soil dries out between waterings.

Feasibility of Containment

Control costs

There are no selective treatments for Mexican feathergrass in pasture, and control using herbicides such as glyphosate or fluazifop would take several years with the need to search for regrowth.

Persistence

Mexican feathergrass, like the other stipoid grasses, can persist unnoticed in native vegetation or unsown pasture because of its resemblance to many native grasses.

Current distribution

Mexican feathergrass was introduced under an incorrect name as an ornamental in the 1990s and planted in suburban Adelaide, towns on the Fleurieu Peninsula and Mount Gambier. Plants from this incursion were still being found in gardens in 2018, and eradication is continuing.

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	medium 95	very high 1	contain spread alert
Native vegetation	low 32	very high 1	monitor
Urban	negligible 11	very high 1	monitor

Considerations

Mexican feathergrass is native to a wide region of the Americas including Argentina, Chile, New Mexico and Texas. It was imported into Australia by production nurseries on many separate occasions from the mid 1990s to the mid 2000s in response to the fashion for ornamental grasses. Mexican feathergrass in particular has been promoted very widely as an ornamental on websites in the USA and Europe.

In 2008-2010 efforts were made, as part of a national eradication program, to trace and destroy all Mexican feathergrass plants that had been sold to the public. Although this grass is no longer in the nursery trade, a few specimens remain in gardens.

Risk assessment indicates containment as a management action; since Mexican feathergrass is present only as rare garden specimens in South Australia, containment is best implemented by preventing establishment in the wild or any further entry to the State while destroying any plants that are found in gardens. Due to its medium weed risk, presence only as a rare cultivated plant, and very high feasibility of control, Mexican feathergrass is a State Alert Weed and a high priority surveillance target to increase the likelihood of early detection.

Synonymy

Nassella tenuissima (Trin.) Barkworth, Taxon 39: 612 (1990)

Basionym: *Stipa tenuissima* Trin., Bull. Sc. Acad. Petersb. i. 67 (1836)

Taxonomic synonyms:

Stipa cirrosa E.Fourn. & E.Fourn., Mexic. Pl. 2: 75 (1886)
Stipa geniculata Phil., Anales Univ. Chile 36: 204 (1870)
Stipa mendocina Phil., Anales Univ. Chile 27: 339 (1865)
Stipa oreophila Speg., Contr. Fl. Sierra Vent. 65 (1896)
Stipa subulata E.Fourn. & E.Fourn., Mexic. Pl. 2: 75 (1886)
Stipa tenuissima var. *planicola* Speg., Anales Mus. Nac. Montevideo 4: 155 (1904)

Other common names include Texas tussock grass, white tussock, ponytail grass, regal sensations and angels' hair. In the nursery trade it may be found mislabelled as *Stipa* 'Capriccio', *Stipa capillata, Stipa lessingiana, Stipa tenacissima* or even as the native elegant speargrass *(Austrostipa elegantissima)*.

References

Jacobs, S.W.L., Everett, J. & Torres, M.A. (1998) *Nassella tenuissima* (Gramineae) recorded from Australia, a potential new weed related to serrated tussock. *Telopea* 8: 41-46.

Hon David Speirs MP
Minister for Environment and Water

Date: 28 March 2021