

Chilean needlegrass (*Nassella neesiana*)



Chilean needlegrass is an unpalatable invasive grass, which severely reduces pasture productivity and invades native grassland.

The sharp seeds cause damage to the skin, fleece and eyes of stock.

It is a category 1 declared weed under the *Landscape South Australia Act 2019*. Landholders must control Chilean needlegrass on their properties. If you find this weed, you must notify your local landscape board.

Description

Chilean needlegrass is a tufted perennial grass that grows in clumps over 1m tall, and up to 1.5m when in seed, but locally may be smaller.

Leaves are mid to dark green, mostly hairless, flat or slightly inrolled, up to 30 cm long and 5 mm wide. The leaves are harsh to touch due to their strong ribs and short marginal hairs.

Flowering occurs in spring and early summer, but plants will flower at other times if conditions are favourable. The flowering head is a loose panicle up to 40 cm long with purplish spikelets.

The seeds are 1 cm long with a 6 to 9 cm long awn (tail). The awns often twist together at maturity to form clumps of seeds.

Hidden seeds (cleistogenes) also form inside the stems and at, or beneath, the soil level.

Seeds germinate mainly in spring and autumn.

Impacts

Chilean needlegrass is considered one of Australia's worst weeds of native grasslands and pasture. If allowed to spread unchecked it is likely to have major environmental and economic costs.

Chilean needlegrass reduces stock carrying capacity due to the production of masses of unpalatable flower stalks. Stock avoid eating it, which allows it to proliferate and displace desirable pasture species during spring and summer.

The sharp needle-like seed readily penetrates wool, skin and underlying muscle of grazing animals. This results in injury, infection and the downgrading of wool, hides and carcasses.

Seeds have been known to blind livestock.

In native grasslands, Chilean needlegrass displaces native forbs and grasses such as kangaroo grass and spear grass.

Distribution

Chilean needlegrass is native to South America. It has a limited distribution in the Mount Lofty Ranges with significant infestations at Wirrina and Kangarilla on the Fleurieu Peninsula. There is significant potential for further spread.

Seed generally falls within a few metres of the parent plant and the rate of spread around established infestations is slow, resulting in distinct clumpy patches.

Dispersal by machinery, animals and water are important in establishing new infestations. Seeds can be spread by grazing animals and in their fur and fleeces.

Seeds are readily dispersed by cultivation during pasture renovation and in straw from infested paddocks. Contamination of hay, seed or grain and soil can lead to the development of new infestations.

Native grasslands are most vulnerable when native plant cover is disturbed by soil disturbance, over-grazing or slashing.

Hygiene

Infestations should be identified and contained to prevent spread of plant material by stock or machinery.

Control methods

Chilean needlegrass closely resembles native spear grasses (*Austrostipa spp*). The identity of an infestation should be confirmed before a control program is begun.

Control programs should be planned over several years to manage ongoing germination.

Control involves a combination of physical removal, herbicide application and the maintenance of competitive pasture cover.



Photo: Kate Blood

Declarations

The following sections of the *Landscape SA Act* apply to Chilean needlegrass in the Hills and Fleurieu region:

186(1,2,3) Cannot transport the plant on or off your property under any circumstances

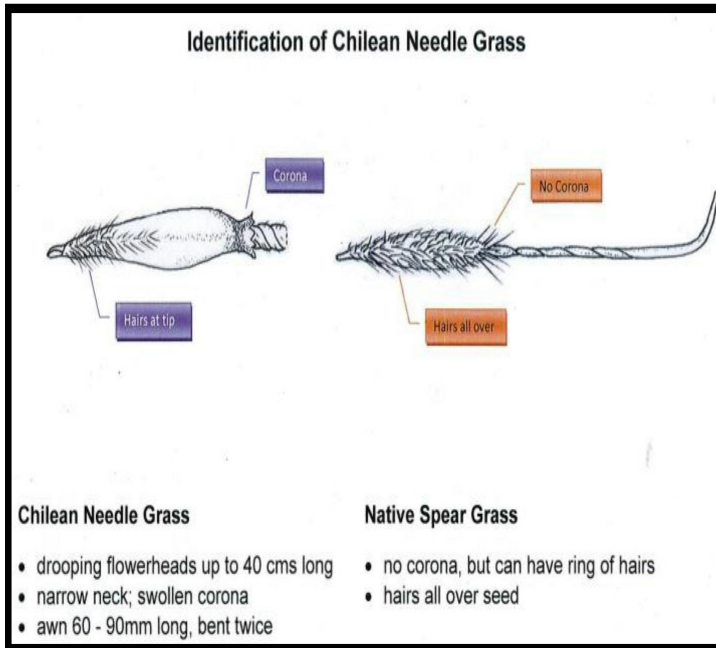
188(1) Cannot sell the plant

188(2) Cannot sell any produce / goods carrying the plant

190(1,2,3) Must notify Regional Landscape Board

191(1) Landowner must destroy all plants of that class on their property

194 Regional Landscape Boards may recover costs for control of weeds on roadsides from adjoining landowners.



For advice on chemical control techniques or if you suspect that you have Chilean needlegrass on your land, place a sample of the seed head in a sealed bag and contact your local Stewardship Officer on 8391 7500.

Further information

Further information is available through Landscapes Hills and Fleurieu

Mount Barker Office: Cnr Mann & Walker streets, Mount Barker, 5251 (08) 8391 7500

Email: hf.landscapeboard@sa.gov.au



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