

# Texas Needlegrass (*Nassella leucotricha*)

November 2015



A typical plant

Texas Needlegrass is an unpalatable invasive grass which severely reduces pasture productivity. The sharp seeds cause damage to the skin, fleece and eyes of stock.

Texas Needlegrass is also a pest of native grasslands.

It is declared under the *Natural Resources Management Act 2004* (NRM Act).

## Description

Texas Needlegrass is a perennial, winter growing grass that grows in tussocks up to 1 m high.

Leaves are mid to dark green, mostly hairless, flat or slightly inrolled, up to 30 cm long and 5 mm wide. The leaves have a fine silky covering underneath and have hairs on the upper surface.

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

Texas Needlegrass produces two kinds of seed. Normal seeds are produced by fertilisation in the flowers. The normal seeds are 1 cm long with a 6 cm to 9 cm long awn (tail). The awns often twist together at maturity to form clumps of seeds. Stem

seeds are produced at the leaf junctions and do not need to be fertilised. Infested areas can accumulate thousands of viable seeds per square metre.

Seeds germinate mainly in spring and autumn.

When grazed the plant tillers profusely, producing many shoots that become a wide untidy tussock. Vegetative spread occurs mainly in autumn, winter and spring.

## Impacts

Texas 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.

Texas Needlegrass reduces stock carrying capacity due to the production of masses of unpalatable flower stalks. It provides very little leaf material during the warmer months and displaces desirable pasture species during spring and summer.

The sharp needle-like seed readily penetrates wool, skin and underlying muscle of grazing animals resulting in injury, infection and the downgrading of wool, hides and carcasses. Seeds have been known to blind livestock.

In native grasslands, Texas Needlegrass displaces native forbs and grasses such as kangaroo grass and spear grass.

Because the plant is avoided by grazing animals, infestations commonly expand as other species are selectively grazed out.



Government of  
South Australia



Natural Resources  
Adelaide and Mt Lofty Ranges

## Distribution

Texas Needlegrass is native to the prairies of North America. It has a limited distribution in the Mount Lofty Ranges with a significant infestation in the lower Onkaparinga Valley. It is also present at Scott Creek Conservation Park, Belair National Park and Mount Bold Reservoir.

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 carried distributed by grazing animals and in their fur and fleeces.

Seeds are readily dispersed by cultivation during pasture renovation. 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.

The long, robust, hygrosopic awns of Texas Needlegrass generally promote self-burial of seeds in the soil, including hard bare sites.

## Hygiene practices

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

## Control methods

Texas Needlegrass closely resembles native spear grasses (*Stipa* species). The identity of an infestation needs to be confirmed before a control program is begun.

Once established, Texas Needlegrass is very difficult to control.

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.

For advice on chemical control techniques contact your nearest Natural Resources Centre. Please refer to the *Weed control handbook for declared plants in South Australia* for advice on chemical control. You can find it on Biosecurity SA's website at [www.pir.sa.gov.au](http://www.pir.sa.gov.au)

## What to do

If you suspect that you have Texas Needlegrass on your land, place a sample of the seed head in a sealed bag and take it to your nearest Natural Resources Centre or local council office for identification.

This is a free service and they will also provide you with information on current control techniques.

## Declarations

The following sections of the NRM Act apply to Texas Needlegrass in the Adelaide and Mount Lofty Ranges region:

- 175 (1) Cannot import the plant into South Australia**
- 175 (2) Cannot transport the plant, or any material or equipment containing that plant, on a public road**
- 175 (3) Cannot transport the plant within or between properties**
- 177 (1) Cannot sell the plant**
- 177 (2) Cannot sell any produce / goods carrying the plant**
- 180 (1)(2)(3) Infestations must be reported to the NRM board**
- 182 (1) Landowner must destroy the plant on their land**
- 185 (1) NRM authority may recover costs for control of weeds on roadsides from adjoining landowners**

## More information

Please contact your local Natural Resources Centre for further information, advice and assistance in controlling Texas Needlegrass.

### Black Hill

115 Maryvale Road, Athelstone 5076  
T: 08 8336 0901

### Gawler

8 Adelaide Road, Gawler South 5118  
T: 08 8523 7700

### Willunga

5 Aldinga Road, Willunga 5172  
T: 08 8550 3400

