

# Serrated Tussock (*Nassella trichotoma*)

November 2015



Image credit: Andy Raymond

Serrated Tussock is a major weed of grasslands and pastures in Australia, but is not yet established in South Australia.

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

## Description

Serrated Tussock is a perennial grass that forms tussocks up to 50 cm tall and 25 cm across at the base. Individual tussocks can live for more than 20 years.

The roots are diffuse and fibrous, growing mainly in the top 20 cm of the soil and strongly anchoring the plant. Even seedlings are difficult to pull from the soil.

Leaves are stiff, narrow (0.5 mm in diameter) and grow to 50 cm long. The leaves are tightly rolled and almost cylindrical. Serrations can be felt by running the leaf between fingers from tip to the base.

The leaves are green in summer and yellow-green in winter with a white base. Tips of old leaves are bleached and fawn in colour.

Stems emerge from the tussocks in late spring and bear the flowers and seeds. The stems are almost twice as long as the leaves and droop at maturity, trailing on the ground. The entire stem detaches from the plant and is dispersed by the wind.

The flowers form in an open, branched panicle up to 35 cm long and can produce more than 100,000 seeds per plant. Plants have a distinct purple appearance when flowering and a golden

colour when seeds are ripening. There are anecdotal reports of seed remaining viable for up to 15 years.

Plants rarely flower in the first year. On poor soils plants may be 4 years old before flowering.

Seeds germinate mostly in autumn and winter.

## Impacts

Serrated Tussock is an important weed of pastures and native vegetation.

The plant is high in fibre with a very low protein content. Livestock feeding in pastures dominated by Serrated Tussock can develop indigestible balls in the rumen, causing a loss of condition and eventual death.

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

The sharp awns of the seeds damage the mouths of sheep and the rough foliage wears their teeth.

Seeds contribute to vegetable fault in wool and are a contaminant of hay.

Serrated Tussock investigations in native grasslands and coastal vegetation displace native species and degrade fauna habitat.

Dense infestations can pose a fire hazard, burning up to seven times more intensely than native grasslands. Wind-blown seed heads create fire hazards where they build up against housing, sheds, roadsides and fence-lines.



Government of  
South Australia



Natural Resources  
Adelaide and Mt Lofty Ranges



Image credit: Andy Raymond

Serrated Tussock can spread easily

Serrated Tussock takes only 7 years from establishment to dominate a pasture or native grassland.

## Distribution

Serrated Tussock is native to South America.

It is considered the worst weed in New South Wales where it occupies almost 900,000 ha.

It is not established in South Australia, but the Mount Lofty Ranges and Fleurieu Peninsula provide suitable habitat. The only known occurrence in the Mount Lofty Ranges has been controlled.

Serrated Tussock grows in areas with an annual rainfall of 450 to 1000 mm. The plant grows in a range of soil types but favours well-drained areas.

It does not grow well in heavily shaded areas, such as under a dense canopy of trees, or in damp or swampy ground.

Seedlings are slow growing and poor competitors with established vegetation. Infestations usually begin on bare ground where there is limited competition.

Seed heads of the plant are carried along the ground and in the air and may be blown over several kilometres.

The seeds of the weed are also dispersed by moving water, mud, in hay and fodder, on machinery and equipment, coats of livestock and in the droppings of animals.

## Control methods

Identification of Serrated Tussock is difficult and it has a similar appearance to several native tussock grasses. It often becomes well established and may even eliminate other tussocks before it is recognised.

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.

Seedlings of this weed are difficult to pull out of the soil.

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 Serrated Tussock 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 Serrated Tussock 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**
- 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) Landholders 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 Serrated Tussock.

### 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

