

Nassella tussock and fine stemmed needle grass *Nassella trichotoma* and *nassella tenuissima*

15

Other common names: Mexican feather grass.

Why they are pest plants

Nassella tussock and fine stemmed needle grass are serious threats to New Zealand's agricultural industry. They are extremely adaptable and grow in a wide range of habitats, out competing desirable pasture species. Seeds are wind and water borne, carried via animals, humans, machinery and in agricultural seed.

In the Waikato region there are known sites of nassella tussock in dry-land farming sites on the Coromandel Peninsula (Te Puru and Waitete Bay) and an historic site at Te Akau. Fine stemmed needle grass has been found in limited sites in North King Country and planted garden areas in Hamilton Whitianga, Whangamata and Paeroa.

Responsibility for control

Environment Waikato is responsible for controlling these plants, monitoring all known sites and working with land occupiers to eradicate these plant pests.

Nassella tussock and fine stemmed needle grass are banned from sale, propagation, distribution or commercial display. Contact your biosecurity pest plant contractor if you suspect you have found nassella tussock or fine stemmed needle grass.

How to recognise these pest plants

Both tussocks are difficult to recognise and distinguish from similar but desirable tussocks. They prefer sunny, dry sites with limited vegetation cover and light soil.

Nassella tussock is a perennial, drought resistant tussock grass with dense fibrous roots which grow up to one metre in depth. The leaves are thin (1 mm) and tightly rolled. To touch they are hard, fairly stiff and rough when drawn downward between the fingers. Plants grow up to 70 cms high and have a leaf spread of up to 80 cms. The bases of the leaves are swollen (like shallots) and whitish compared to other similar looking tussocks that have purplish coloured leaf bases. The best identification feature is the short (1-2 mm) white, hairless ligule and lack



Photo: Trevor James

Nassella tussock can produce up to 120,000 seeds each year, which can remain in the soil for a decade or more.

Identifying features

- Both tussocks have leaf shoots that are white at the base.
- Perennial plants with bright green leaves (fine stemmed needle grass is grey green on leaf underside).
- Often obvious due to their height above surrounding pasture plants.
- Nassella flowers October to December. Fine stemmed needle grass flowers December to January.

**Notify Environment
Waikato if you
find nassella tussock
or fine stemmed
needle grass in the
Waikato region.**

Plant type

Aquatic

Fern

✓ Grass

Ground
cover

Shrub

Tree

Vine

Disposal

✓ Burn

✗ Compost

✓ Herbicide

✗ Bury
deeply

of auricles. Similar tussocks either have hairs at the ligule or have no ligule at all. Roots are deep, fibrous and matted, making even small plants difficult to pull out.

Nassella normally flowers between October and December. During flowering it tinges purple. The numerous flower heads are in the form of open branched panicles, which grow from 25-95 cm long (a panicle is a flower cluster in which the flowers are on branched stalks coming off the main axis).

Fine stemmed needle grass is a tall, erect, wiry, open perennial tussock grass, which grows up to 1.2 m tall when flowering. The leaves are 8-30 cm long, 2-4 mm wide, flat, coarse textured with fine ribs. The leaves are green on top and grey-green on the underside. They are rolled inward very tightly so that they appear as thin wiry filaments. The plant seeds from December to January and seed is a dark purple colour sharply pointed and hooked with long 25 mm awns. Seed head stalks have swollen nodes on the stems which are coloured a purplish silver. Seed heads are large, drooping down, making the plant stand out from other grasses due to its height and silvery look.

How to control nassella tussock and fine stemmed needle grass

Small infestations are usually grubbed out before they flower and set seed and are then destroyed by burning. Larger infestations are treated annually with an appropriate herbicide before plants flower and set seed. Continued checking and treatment (prior to seeding) is needed for a number of years. We encourage landowners to re-vegetate treated areas with desirable plants.

Important contacts

For additional advice and information on effective methods of control contact your pest plant officer, chemical company representative, farm supply store or garden centre.

Biosecurity pest plant contractors in the Waikato region – 0800 BIOSECURITY (0800 246 732).

For information on what we do phone Environment Waikato's freephone 0800 800 401 or check out www.ew.govt.nz/pests.

For more information on pest plants, check out www.weedbusters.org.nz.



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Acknowledgements

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Nassella tussock seed head.



More information

Regional Pest Management Strategy (RPMS).

What makes a pest a pest? – A guide to the Waikato Regional Pest Management Strategy (free).

Plant Me Instead – Plants to Use in Place of Common Pest Plants (free).

The New Zealand Pest Plant Manual (National Pest Plant Accord Identification Guide) – \$10.00 incl. GST.

Poisonous Plants and Fungi in New Zealand – A Guide for Parents, Schools and Child Minders (\$15.00 incl. GST).