

# Chilean needle grass (CNG)

*Nassella neesiana* (Trin. & Rupr.) Barkworth  
(Stipeae) Synonym: *Stipa neesiana*

## What is it?

As its common name suggests, CNG is a native grass of South America. It was first recorded in Australia about 70 years ago in Melbourne. It now occurs extensively throughout south-eastern Australia, with isolated infestations in Queensland, South Australia and Tasmania. The first record of CNG in Tasmania was at the University of Tasmania (Hobart) in the 1990s. However, last summer saw other infestations located at Hobart's Eastern Shore. It is likely that it has been spread to a number of public open space areas and reserves through the movement of slashing and mowing equipment.



Figure 1 - Habit of CNG

## What does it look like?

When not in flower, CNG may be identified by its vegetative features. It is a perennial grass up to 1.2 m high, often producing many shoots from the base that become a wide untidy tussock (fig. 1). The leaves are hairless or sparsely hairy, flat or somewhat inrolled, to 30 cm long and 5 mm wide, and harsh to touch due to their strong ribs and short marginal hairs. At the base of each leaf is a 3 mm long smooth membranous appendage known as a ligule, which extends across the leaf base and is bordered by two small tufts of erect hairs either side that are easily seen when the leaf is pulled down from the stem (fig. 2).

The easiest time to identify CNG is between October and February when it is flowering and setting seed. Two types of seed (normal and stem seeds) are produced during this period. 'Normal seeds' are produced on tall spikelets that have a purplish colour and a characteristic raised crown (called a corona) with small teeth, encircling the base of the awn (fig. 3). 'Stem seeds', called cleistogenes, are formed at the nodes (swellings along the flowering stem that give rise to leaves), as well as the base of the flowering stem (fig. 4). Cleistogenes allow the plant to reproduce even if flowering has been inhibited.

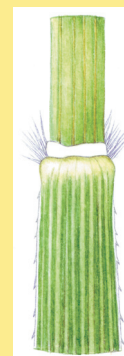


Figure 2

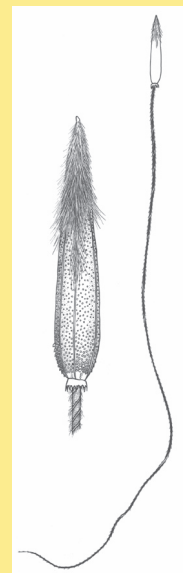


Figure 3

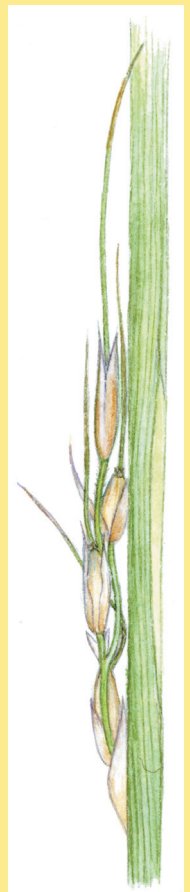


Figure 4

## What is its weed potential?

CNG is one of the twenty Weeds of National Significance, and hence has numerous characteristics that make it weedy. The key biological features that make CNG so successful include:

- It is a long-lived grass.
- Seeds can germinate at any time of the year.
- Seed production is high and the seedbank is long-lived.
- Seeds can be dispersed long distances.
- It is tolerant of drought, waterlogging, fire and grazing.

In Australia, CNG is a highly invasive weed. It can reduce primary productivity by up to 50 percent when occurring in pastures, and is considered the worst environmental weed of critically endangered indigenous grasslands in south-eastern Australia. It is also a weed of roadsides, which form effective corridors for its dispersal.

## WEED PROFILE

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Illustrations by

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Figure 2 Ligule of CNG, at junction of leaf blade (top) and leaf sheath (bottom)

Figure 3 Seed of CNG

Figure 4 Cleistogenes (stem seeds) of CNG