

Control and Management.

As with most invasive species, the early detection and management is crucial in the control of Chilean Needle Grass. Most grass weeds are difficult to identify because they look innocuous and rarely raise land managers' attention until the species is well established. Chilean Needle Grass is a prime example of an invasive weed grass that looks at first glance like an improved pasture species.

The key steps to controlling Coolatai grass are:

- **Learn** to identify Coolatai grass, or seek assistance in identification
- Seek assistance to **Plan** control methods

Implement the control methods as planned and monitor for regeneration.



Flowering Chilean Needle Grass

Herbicide Options

Flupropanate 745 g/L (Various products)
Rate: 3.0 L per Ha **Boom** application.

Comments: Apply to actively growing plants.

Glyphosate 360 g/L with Flupropanate 745 g/L (Various products)
Rate: 150 mL glyphosate plus 20 mL flupropanate per 10 L of water **Spot spray** application.

Comments: Apply to actively growing plants.

Whenever using herbicides ALWAYS CHECK THE LABEL for applicable withholding periods.

Acknowledgements

Much of this information was sourced from NSW Weedwise (<https://weeds.dpi.nsw.gov.au/Weeds>)



Chilean Needle Grass

Nassella neesiana



Chilean Needle Grass carcass damage from seeds

Why is Chilean Needle Grass a weed?

Chilean Needle Grass is considered one of Australia's worst pasture and grassland weeds. It is a very coarse, unpalatable grass with very low digestibility and nutritional value. Chilean Needle Grass is herbicide tolerant and infestations rapidly reduce pasture productivity, particularly in summer, due to stock selectively avoiding it when grazing. This aids Chilean Needle Grass in taking over and dominating pastures.

The sharp needle-like seeds readily injure animals' eyes, contaminate and downgrade wool and are capable of piercing hides causing infection and contaminating carcasses.

What does it look like?

Chilean Needle Grass is a tufted perennial grass weed that can grow up to 1m high. Young plants are easily misidentified as improved perennial pastures, as the plant ages it closely resembles native Spear grasses. The leaves are a dark green, mostly flat and strongly ribbed, making them harsh to touch and not palatable to stock. Fine white hairs are typically present on the underside of the leaf.

Two types of seed are produced. Flower seeds are a distinctive purple colour in loosely clumped open seed head with long trailing tails, or awns, up to 9cm long. Stem seeds are also produced at stem nodes or leaf junctions. Stem seeds do not need to be fertilised and can account for 25% of the seeds produced.

The purple flower seeds tend to become pale brown on maturity, further complicating an accurate identification with the seed head more closely resembling Spear grasses.



Chilean Needle Grass in flower

How does it spread

Chilean Needle Grass can produce up to 20,000 seeds per square metre. The hairy, awned seeds readily adhere to the hair and wool of animals, clothing and is easily caught on and in vehicles. Seeds are very persistent in the soil.

Heavy grazing and slashing is not effectively and can actually enhance the spread of Chilean Needle Grass. Grazed or slashed plants tiller profusely and form a tussock like plant that greatly increases the production of viable stem seeds, increasing the spread of Chilean needle Grass.



Chilean Needle Grass seed head

Chilean Needle Grass is an extremely vigorous and competitive grass that will readily populate bare or disturbed soils.