What to do if you find Needle Grass

Needle grasses, Espartillo and Serrated Tussock are invasive weeds that can do great harm to agricultural land and natural ecosystems. If not removed promptly, huge amounts of time and money must be spent later trying to control them.

To get rid of them, it's necessary to be vigilant and thorough. Getting the sequence right is also very important.

Sequence

- 1. Check often from mid October to see if any needle grass plants have heads.
- 2. If so, delay mowing the infested area.
- 3. Check you've identified them correctly.
- 4. Destroy the plants.
- 5. If mowing is needed, mow promptly **after** removing needle grass.
- 6. Repeat steps 1-5 (until about January, February or March).

1. Checking

Spring is the easiest time to identify most needle grasses. In Castlemaine they usually start to flower in about mid-October. Check often to see if any have heads.

2. Delay mowing

When they have heads with ripe seeds, do <u>not</u> mow or slash, as this spreads the seeds to other areas. Needle grasses with heads are also much easier to identify. (If there is an urgent need to mow before seeding plants have been destroyed, cut off all seed heads and bag before mowing. There may also be hidden seeds in the lower stems, so thoroughly clean all plant material and soil off mower before moving it elsewhere.)

3. Check identification

It's important to identify them correctly, to avoid removing native grasses (some of which look similar to needle grasses). Resources to help with identification are over the page.

4. Destroy the plants

Remove needle grasses straight away and bag. If this is not possible, mark the spot (eg with a stake and coloured twine) so you can easily find them again.

Needle grass plants set viable seed about 2 weeks after they flower. They must be removed or killed before this time is up.

The flowers are tiny and pale, without petals. Sometimes their pollen-bearing anthers, only a few millimetres long, can be seen dangling in the wind. Seeds follow the flowers. If the seed is soft and can be squashed easily it is not yet ripe. Once it is hard (when squeezed between finger and thumb) it can germinate.

Small plants can be pulled out. Big ones can be dug out. A small (heavy) hand mattock is useful— whack the mattock under the plant with one hand and pull with the other. Make sure you get all the bulbous bits at the base of the plant — these can shoot again if left. Hand removal is best where there are indigenous plants or other plants you don't want to harm nearby.

If the infestation is too big to pull or dig out, it can be sprayed with a mixture of glyphosate (eg Roundup) and flupropanate (eg Taskforce). Glyphosate kills the plant and flupropanate kills germinating grass seedlings for about 2 years. This can greatly reduce the infestation and the need for future control work. Spraying is best done by trained, experienced workers. Connecting Country's website has a list.

Herbicide won't kill viable seeds. If spraying with just glyphosate, the seeds (including any stem seeds) will have to be cut off and removed before spraying.

As well as the seeds at the top of the plant and the self-fertilised seeds lower down the stem, Needle Grasses can have bulb-like "seeds" at the base of the plant.

If using herbicide, always follow the label (i.e. manufacturers' instructions) and read safety data sheets.

5. Mow promptly (if necessary) <u>after</u> destroying the plants

As well as minimising fire risk, mowing can make it easier to see newly germinated needle grass plants.

If they have been sprayed, wait a week before mowing, to allow glyphosate to act. Leave the clippings on the ground (to avoid moving seeds elsewhere and to let flupropanate wash into the soil from where it acts).

6. Repeat steps 1-5

Needle grasses can continue to germinate and flower through spring, summer and even autumn, especially after rain. Espartillo has a different cycle from the others – new tufts can often be found in winter and flowers sometimes in autumn.

If the infestation has been there long enough for seeds to have been dropped in previous seasons, steps 1-5 will have to be repeated for years, as seeds can stay viable in the soil for 15 years.

Eradication involves persistence and time, but this is not a reason to give up and do nothing. It's better to do a small amount to help stop their spread than to do nothing.

Disposal

As plants are dug out, put them into sturdy bags (eg potting mix bags). To dispose of, incinerate the plants or bury in a secure place (at least 50cm deep) where they won't be dug up for 15 years). Or they may be put in the bin or taken to the tip after taping bag shut and putting each bag in a second bag and taping it shut.

Needle grass type weeds (stipoid weeds) in Mount Alexander Shire

Cane Needle Grass (*Nassella hyalina*). Alert List for Environmental Weeds.

Chilean Needle Grass (*N. neesiana*).

Noxious weed (Restricted category).

Weed of National Significance.

Environmental weed.

Espartillo (*Amelichloa caudata*). Environmental weed.

Serrated Tussock (*N. trichotoma*) Noxious weed (Regionally Prohibited category). Weed of National Significance. Environmental weed.

Texas Needle Grass (*N. leucotricha*). Environmental weed.

More information

Connecting Country may be able to help with identification. Phone 5472 1594. www.connectingcountry.org.au

Department of Primary Industries, *National Best Practice Management Manual:*Chilean Needle Grass, 2007.

Matt Sheehan. Knowledge of control methods, etc. matt@wildmatters.com.au

Richardson, E.J., Richardson, R.G. & Shepherd, R.C.H., *Weeds of the southeast*, 2011 pp86-89 (581.652 RIC in Goldfields libraries).

Upper Campaspe Landcare Network, A Ute Guide to Chilean Needle Grass & Texas Needle Grass Identification & Management uclandcare@gmail.com www.up percampaspelandcare.org.au/wp-content /uploads/needle-grass-web-LR-1.pdf.

Victorian Serrated Tussock Working Party, *Identification of Serrated Tussock*, 2011 (online or from Connecting Country).

Walter, J., *Texas Needle Grass Identification Guide* (Malmsbury District Landcare 5423 9383).

Leaflet from Margaret Panter 5470 5072 (7am-7pm) 4 Dec 21