

emerging grass weeds

on the South Coast

WEEDY GRASSES

Grasses can be some of the most difficult weeds to deal with, largely because of identification problems. This leaflet covers some of the grass weeds that are an emerging threat on the South Coast. They are all very invasive and pose a high risk to the grazing industry and the natural environment.

Control of weedy grasses is by chipping or spot-spraying of isolated plants before they produce seed. For large infestations boom spraying should be considered. For effective long term control use an integrated program of spraying, sowing and pasture management.

If using herbicides be sure to read the label and heed the label. Consult your local Council weeds staff or herbicide supplier for more detailed information about control methods.

Chilean needle grass (*Nassella neesiana*)

A **perennial tussock grass** that can grow up to 1 metre high. The dark green, flat to slightly inrolled leaves are up to 5mm wide and are sparsely to moderately hairy on both surfaces. They are usually held parallel to the ground, not erect.

The **seed** is sharply pointed and enclosed in a membranous sheath which is red-purple before the seed matures. The seed is 6-10mm long, but has a much longer (45-85mm) awn attached at the blunt end. The long hairs at the corona provides the best distinguishing feature between this weed and native spear grasses (see photo).

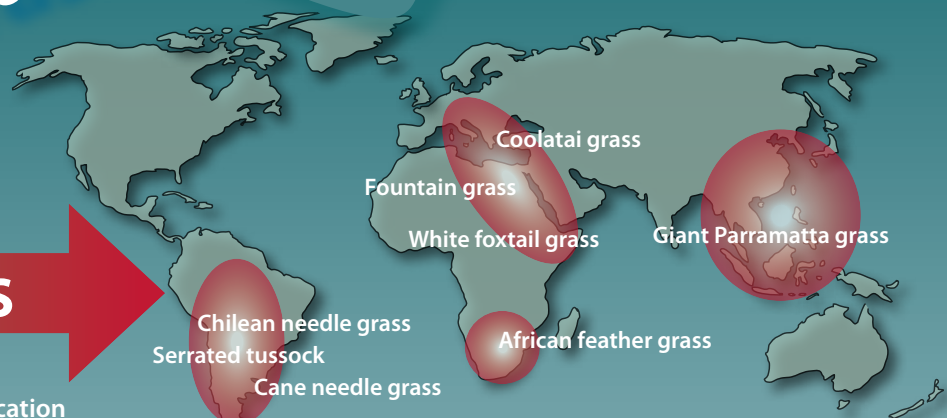
The **awn** twists to drive the seed into the ground, which also helps the seed to attach to livestock, machinery, vehicles and clothing. This weed is well established on parts of the Southern Tablelands and it has spread as road verges have been slashed.

It is **not very palatable to stock** so can take over from more palatable grasses in grazed pastures forming a monoculture, as useful pasture grasses and native vegetation are eaten out.

Chilean needle grass can also produce hidden seed within the base of the flowering stem. Mowing will be only partially effective at reducing seed production and is best avoided in case it spreads seed. Dug out plants should be burnt to destroy this hidden seed.

Listed as **noxious** in all coastal Local Government Areas and as a Weed of National Significance.

IF YOU SEE WHAT YOU THINK MAY BE ONE OF THESE GRASSES, OR ANY UNFAMILIAR GRASS, INFORM YOUR LOCAL COUNCIL WEEDS STAFF



Spear grasses (*Austrostipa* species)

Many native spear grasses have similar pointed seeds and a long awn which becomes curved or kinked as the seed matures. Most coastal spear grasses have **narrower leaves** which are inrolled into a narrow cylinder shape and some have **hairy awns**.

The **most similar is *Austrostipa rudis***, which is common on the coast and ranges. The young seed head is virtually identical to Chilean needle grass, but the mature seed lacks the corona of hairs at the base of the awn. Its flat leaves are hairy on only one surface, or much more hairy on one surface than the other.

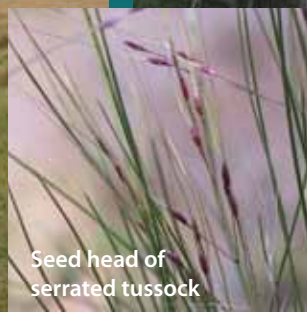
Many spear grasses have swollen white nodes on the flowering stems, as does Chilean needle grass, but the distribution of the white hairs around the nodes is different (see photo). Chilean needle grass nodes are only slightly wider than the rest of the stem.



noxious weed

native look-alike

Serrated tussock infestation



Seed head of serrated tussock

Seed heads snap off whole and blow around



Serrated tussock (*Nassella trichotoma*)

Serrated tussock (*Nassella trichotoma*) is a **long-lived perennial tussock grass** with very fine, rolled leaves which vary from bright green in the growing season to pale bleached straw colour in winter. The leaves are held strongly erect, but the flowering stems are weak and tend to weep over to one side.

The tiny seeds have a long awn and are enclosed in a membranous sheath which is red before the seed matures, giving the flowering plant a pink appearance.

Mature seed heads snap off whole and blow around, often piling up against fences. By this means **seed can be spread over long distances**, as well as being carried in or on livestock, on

vehicles which have driven through infested areas and in soil and contaminated hay or other stock feed.

Serrated tussock is a common weed on the tablelands, but is less well established on the south coast. However, there are pockets of infestation, from the Towamba Valley in Bega Valley Shire to the upper Shoalhaven catchment.

It is not palatable to stock and has almost no nutritional value.

Especially in grazed pastures, it can form a monoculture, displacing useful pasture grasses and native vegetation. **It is listed as noxious throughout NSW and as a Weed of National Significance.**

look-alikes

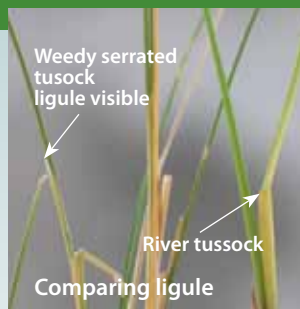
Hairy panic (*Panicum effusum*) and **blown grass** (*Lachnagrostis filiformis*, formerly called *Agrostis avenacea*) have seed heads which snap off whole and pile up against obstructions. Both have flat leaves not narrow rolled ones.



Seed head of *Poa meionectes*

Some of the Poa species look quite similar, but their flowering stems are stiff and erect and remain on the plant after seed has been shed. Most often confused with serrated tussock are river tussock (*Poa labillardierei*), a more robust tussock of dampish areas and *Poa meionectes*, a small forest

grass with very fine bright green leaves. Poa seed is not awned and often has a purple tinge, not red or pink.



Weedy serrated tussock ligule visible

River tussock

Comparing ligule

A useful feature for distinguishing serrated tussock from Poa species is its ligule, an erect membranous white flap found where the leaf blade joins the leaf sheath. Pulling the leaf blade away from the stem will reveal the ligule on serrated tussock. Local Poa species have a ligule but it is very short and not visible to the naked eye.

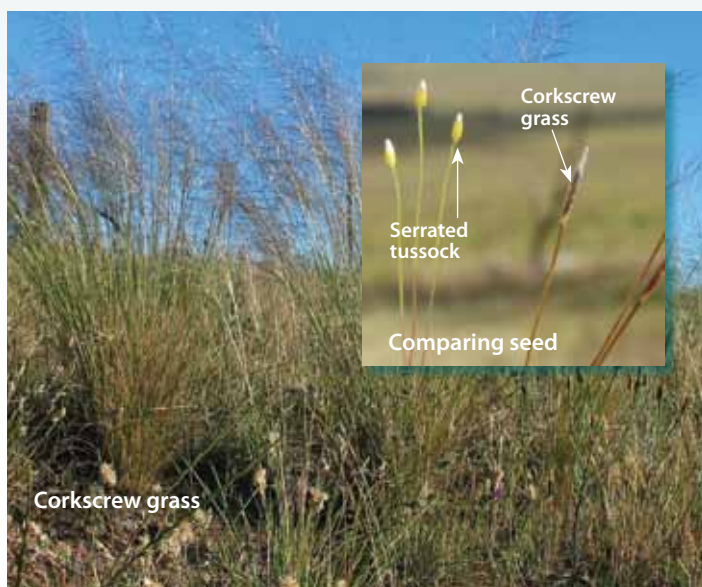
Some **native speargrasses** (*Austrostipa species*) have similar erect, very narrow leaves and awned seed which can appear pink in the flowering stage. **Corkscrew grass** (*Austrostipa scabra*) is the most similar, but its seed is much larger and more elongated and stems are more upright and remain on the plant after seed is shed. It is more likely to be found on the tablelands, but does occur in some parts of the south coast.



Weedy serrated tussock. Note the much finer, brighter green leaves.

Native river tussock

Comparing tussocks



Corkscrew grass

Serrated tussock

Comparing seed

Corkscrew grass

native look-alike



Weedy grass commonly appear first on roadsides

African feather grass

African feather grass (*Pennisetum macrourum*) has been grown as an ornamental grass and is occasionally naturalised on the south coast. It is a very robust tussock with bright green raspy-textured flat leaves up to 12mm wide. The seed head is a narrowly cylindrical bristly spike 8-30cm long.



Old seed head, many seeds are shed.

weedy look-alikes

Fountain grass (*Pennisetum setaceum*) is a commonly grown ornamental which also sometimes becomes naturalised near towns and gardens, and the very similar native swamp foxtail (*P. alopecuroides*) is also sometimes grown. Both have purple bristly flowering spikes, slightly longer and narrower in fountain grass.

Feathertop or white foxtail (*P. villosum*) has fluffy white seed heads. It is an uncommon weed on the coast. It is not listed as noxious but can be quite invasive. It is a much smaller plant generally only about 30cm high and tending to form spreading clumps.



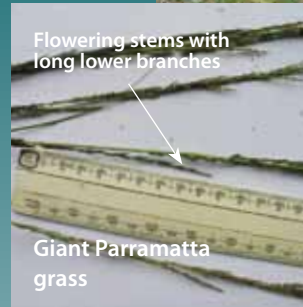
White foxtail grass



Swamp foxtail

Fountain grass

Comparing grass heads



Flowering stems with long lower branches

Giant Parramatta grass

Giant Parramatta grass

Giant Parramatta grass (*Sporobolus fertilis*) belongs to the rat's tail grass group, most of which look similar and are hard to tell apart. Some are native, some weedy and some listed as noxious weeds. **Parramatta grass** (*Sporobolus africanus*) is an extremely common weed to 90cm high but usually shorter, growing in degraded pasture, sandy soils and compacted soil such as on tracks. Giant Parramatta grass is similar but larger, to 1.6m high. It has tough wiry stems, green to blue-green hairless leaves and a long, narrow flowering spike composed of many tiny leaden grey florets. It differs from Parramatta grass in having long (8-11cm) branches in the lower part of the flowering spike, which droop away from the stem. In Parramatta grass there may be some branches at the base of the flowering spike, but they are short and do not droop.

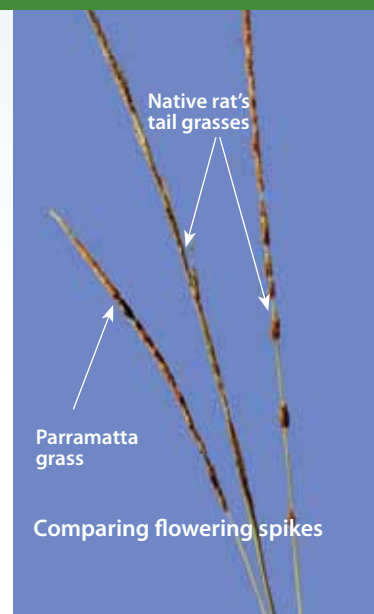
Giant Parramatta grass is mainly a weed of moister environments and is a nuisance in pastures on the NSW north coast. Isolated occurrences have been found on the south coast and it is **listed as noxious in all south coast local government areas**. It has little feed value and can dominate pasture and replace native plants in wet areas.

Seed becomes sticky when wet and readily adheres to animals, clothing and vehicles. First arrival in an area is usually along track edges.

Giant rat's tail grass (*S. pyramidalis*) is another noxious weed, similar but with long branches which open out at maturity to form a pyramidal seed head. It has been recorded at Milton.

look-alikes

Native rat's tail grasses (*Sporobolus elongatus* and *S. creber*) are similar. They are shown here with the shorter, denser spike of **Parramatta grass on the left**. Both have gaps at the base of the flowering spike where the stem shows through, *S. creber* with very large gaps.



Native rat's tail grasses

Parramatta grass

Comparing flowering spikes

noxious weed

native look-alike

weedy plants: a threat to agriculture and the environment

for more information please contact:

Illawarra District Noxious

Weeds Authority

(02) 4233 1129

Shoalhaven City Council

(02) 4429 3111

Eurobodalla Shire Council

(02) 4474 1000

Bega Valley Shire Council

(02) 6499 2222



Coolatai grass tussock



Coolatai grass two branched seed head



Coolatai grass on road verge near Berry



Cane needle grass seed

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Coolatai grass (*Hyparrhenia hirta*)

A **perennial tussock grass** to 1 metre high. It has flat blue-green leaves and a two branched seedhead. Each floret is covered in silky hairs which fluff up when the seed is ripe (above right). The flowering stems are reddish, and as sections of bare stem are separated by green leaf sheaths they give the impression of being composed of broad red and green bands. Unfortunately several common native grasses also look like this.

Coolatai grass is spreading rapidly on road verges around the state, mostly on the slopes, but it has become established on the outskirts of Sydney and is moving into the Illawarra. A single roadside infestation has been found in the Bega Valley.

Cane needle grass (*Nassella hyalina*)

Another emerging weed, which has been found at one site in the Bega Valley. It is similar to Chilean needle grass, but has shorter awns on the seed (35-40mm). Its corona is about the same length with sparser hairs.

The common name is misleading, as the plant is just an ordinary tussock with leaves 1.5-4mm wide, flat or rolled.

There are two native plants which have a bamboo-like appearance, and could be mistaken for this weed, just on the basis of the name. They are *Austrostipa ramosissima*, common round the edges of wet gullies on the coast, and *Austrostipa verticillata*, which grows in dense patches under trees in the Bega Valley, particularly in the Candelo area.

Some native tussock grasses

Common natives such as kangaroo grass (*Themeda australis*), barbed-wire grass (*Cymbopogon refractus*) and red-leg grass (*Bothriochloa macra*) all share the tussocky growth habit. They have broad flat leaves which may be blue-green similar to Coolatai grass.



Comparing grasses

Above: Barbed-wire grass has the florets arranged in short spikes which are similar to the barbs on barbed wire in shape. Coolatai grass is at right.

Inset: Barbed-wire grass showing the two-colour effect on the stems.



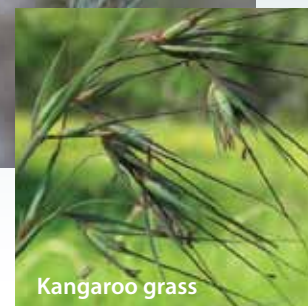
Barbed-wire grass stem

Below: Red-leg grass has hairy spikes of florets very similar to Coolatai grass, but they are in groups of 3-6, not paired (green at left, ripe on right).



Red-leg grass

Inset: Kangaroo grass has distinctive drooping seed heads, with a long, dark awn on each seed. All of these native grasses can look similar to Coolatai grass, especially when growing en masse.



Kangaroo grass

native look-alike