

FACT SHEET

Buffel Grass Identification

What is it?

Buffel grass is an introduced, summer-growing, perennial grass 0.2 – 1m high. It is often found along roadsides and rail corridors. It has the ability to invade a variety of landscapes throughout South Australia.

What are the key identifying features?

Habit: Erect, tussock-forming, deep-rooted grass 0.2 – 1m high. Buffel grass can vary significantly in appearance depending on the time of the year. Following summer rain and active growth, buffel grass leaves are green and in dry times when the plant is dormant the leaves are straw coloured.



Roadside buffel grass infestation



Cenchrus ciliaris



Cenchrus pennisetiformis



C. ciliaris 'maturing', 'flowering' and 'gone to seed'

Habit: *Cenchrus pennisetiformis* has a sparse tussock formation when compared with *C. ciliaris*.

Leaves: Rough textured due to small stiff hairs, with a prominent vein down the centre of the leaf. Leaves tend to curl when drying.

Ligule: The area where the leaf joins the stem has fine hairs.

Roots: Deep, extensive fibrous root system, some with rhizomes up to 50cm in length. Carbohydrate storage nodules are visible at the base of each stem.

Flower: Spike-like seed heads to 15cm long containing dense burrs, varying in colour from straw coloured to purple. Appear primarily in summer months. A key difference between *C. ciliaris* and *C. pennisetiformis* is the latter's dark purple to black appearance of the seed heads.

Flowering Stem: Obvious zig-zag appearance of the flowering stem. Although this is an indicator that the species may be buffel grass, care should be taken due to the fact that some other grasses also possess this characteristic.

Fruit/Seed: The fruit of buffel grass consists of a small burr 4 – 5mm long, containing a ring of stiff hairs that join the base. Small seeds are < 2mm long and can persist in the soil for up to 5 years. Each burr contains 1 – 3 seeds.

Care should be taken when identifying buffel grass seedlings and juveniles as some other grasses also possess these characteristics.



Hairy ligule



Buffel grass root system



Carbohydrate storage



C. pennisetiformis seed head



C. ciliaris flower stem



C. pennisetiformis flower stem



Prominent vein down the centre of leaves



C. ciliaris fruit and seed



C. pennisetiformis fruit

Red/purple tinge at base of stem



Buffel grass (foreground) invading intact native vegetation

What are the growth phases?



Seedling



Juvenile



Mid growth



Mature / Seeding



Hayed-off / Dormant



Dead

Introduced and Native ‘Look Alikes’

Introduced

Fountain Grass – *Cenchrus setaceus*



Perennial grass to 1.5m high. Has a long narrow leaf 3.5mm wide and 60cm long, with small forward facing teeth on the leaf surface.

Flower heads are pink to purple 6 – 30cm long (much longer than buffel grass). The cylindrical seed head has spikelets up to 6.5mm long and these are surrounded at the base by white to purplish, feather like bristles mostly 15 – 26mm long with one to 40mm long.

Mossman River Grass – *Cenchrus echinatus*

Tufted annual or perennial grass 10 – 90cm tall. Leaves are long and narrow from 3 – 10mm wide and 4 – 25cm long. Burrs are prickly, pale brown or reddish and are positioned to form cylindrical spikes. The inner bristles are broad and the tips of the longer bristles have small downward-pointing barbs. Flowering stems have an obvious zig-zag appearance similar to that of both *C. ciliaris* and *C. pennisetiformis*.



Birdwood Grass – *Cenchrus setiger*



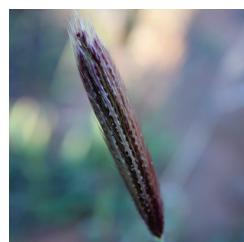
Tufted perennial grass to 80cm tall. Leaves are long and narrow from 2 – 7mm wide and 2 – 30cm long. The burrs are dark purple in color, arranged in dense cylindrical spikes up to 12cm long and closely resemble that of *C. pennisetiformis*. The burrs are solid to touch as opposed to fluffy as is the case with *C. ciliaris*. Birdwood grass has a zig-zag flower stem identical to that of *C. ciliaris* and *C. pennisetiformis*.

Feathertop Rhodes Grass – *Chloris virgata*

Tufted annual grass up to 1m tall with erect and semi-prostrate stems capable of rooting at the joints.

Leaves are bluish green, 5 – 25cm long and 3 – 6mm wide.

The seed-heads have 7 – 19 feathery, white-silver spikes that are 3 – 9mm long. The feathery appearance comes from the stiff white hairs on the seeds.



Whorled Pigeon Grass – *Setaria verticillata*

This is an annual, loosely tufted grass to 1m high, usually with stems bent near the base.

Leaves have a sheath. The leaf stalk is smooth, long and upright with a ligule densely hairy (like eyelashes) and a flat, hairless leaf. The base of the leaf-stalks are red tinged.

Flowers are cylindrical and purplish in color. Bristly seed clusters have short spikes. Seeds are green to purple. One bristle is at the base of each spikelet; the bristle has backward-pointing barbs for attaching to animals and clothing.



Native

Barley Mitchell Grass – *Astrebla pectinata*



Summer growing perennial tussock grass to 1.2m high although mostly less than 60cm. Stems are upright, hairless, smooth and often branched.

Leaves are bluey-green, finely pointed and stiff with rough, sharp edges. Leaves often curl or twist as the plant ages.

Flowers in spring-autumn and has two rows of green or straw coloured spikes. The flower stem has a zig-zag appearance very similar to buffel grass.

For Further Information

For resources and state-wide buffel grass management visit Biosecurity SA – Buffel grass webpage:
www.pir.sa.gov.au/buffel-grass

For regional buffel grass management and advice contact your local Natural Resources SA office:
www.naturalresources.sa.gov.au/home

For assistance with buffel grass identification/specimen collection, contact the State Herbarium of South Australia:
www.environment.sa.gov.au/Science/Science_research/State_Herbarium

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