



A collaboration between AWI, GRDC, MLA, RIRDC and Dairy Australia

Forest bluegrass

Scientific name(s)

Bothriochloa bladhii ssp. *glabra*

Strengths

- Palatable when young and leafy.
- Drought tolerant.
- Tolerates heavy grazing.
- Competitive with weeds.
- Establishes readily.
- Adapted to acid, infertile soils but also grows well on more fertile loams and clays.
- Effective groundcover to minimise erosion.

Limitations

- Not adapted to high pH cracking clay soils.
- Slow seedling growth compared with vigorous grasses such as rhodes grass.
- Awned seed, difficult to harvest, handle and sow.
- Intolerant of flooding.

Plant description

Plant: A tufted perennial warm season grass, erect or prostrate then erect, 40-80 cm tall before flowering, sometimes with short stolons.

Stems: Culms largely unbranched, 1-1.5 m tall at maturity.

Leaves: Leaf-blades 20-30 cm long, 5-7 mm wide, tapering gradually from the base to a fine point. Leaves have a membranous ligule.

Seedhead: A panicle comprising up to 20, mostly simple, green to purplish branches arising from different positions. Seed has bent and twisted awn, 10-25 mm long.

Seeds: 1.2-1.9 million seeds/kg

Pasture type and use

It is suitable as permanent pasture on poorer forest soils but also on more fertile forest and scrub soils for beef and sheep production in moderate rainfall areas.

Where it grows

Rainfall

It is adapted to areas receiving 500-1000mm/yr and is sown mainly in areas with rainfall above 750 mm/yr but can persist in areas with lower rainfall.

Soils

Grows on both fertile and infertile soils with textures from sandy loam to clays and hard-setting clay loams.

Temperature

It grows during the warm season and tops are killed by heavy frost.

Establishment

Companion species

Grasses: rhodes grass, digit grass, tall finger grass.

Legumes: lucerne, annual medics, sub clover, yellow serradella, birdsfoot trefoil.

Sowing/planting rates as single species

2-4 kg/ha.

Sowing/planting rates in mixtures

1-2 kg/ha.

Sowing time

It can be sown from spring to late summer. It is best sown in spring if weeds, especially annual grass weeds, are controlled or minimal, or in late-summer.

Inoculation

Not applicable

Fertiliser

No fertiliser is required for establishment on suitable soils although phosphorus may be needed for establishment of companion legumes.

Management

Maintenance fertiliser

It is tolerant of low soil nitrogen levels, competing well with native grasses in forest country, where other improved pasture grasses may fail. Established stands respond to application of nitrogen fertiliser.

Grazing/cutting

Establishing stands with well developed secondary roots should only be grazed lightly to consume palatable weeds.

Seed production

100-150 kg/ha seed may be obtained from nitrogen fertilised stands or on more fertile soils in first year.

Ability to spread

It spreads by seed and expands by short rhizomes.

Weed potential

Forest bluegrass has a low weed potential but it may replace ecologically very similar native grasses, pitted bluegrass and red grass, on sandy surfaced duplex soils.

Major pests

No major pest known.

Major diseases

Rust may be evident late in the season but is of little concern in grazed stands.

Herbicide susceptibility

It is killed by glyphosate and is tolerant of atrazine at low rate.

Animal production

Feeding value

Quality declines with age, and more rapidly with the onset of flowering. Crude protein level in

young leaf may be 10%, declining to below 5% in mature growth.

Palatability

It is readily eaten by livestock in the leafy stage, and can tolerate heavy grazing. The strongly scented herbage does not taint milk or meat.

Production potential

Annual pasture yields of about 7 t/ha DM are achievable and more in nitrogen fertilised seed crops. Cattle can gain an average 0.5 kg/hd/day, with a peak 1.25 kg/hd/day in late summer and a small weight loss in winter.

Livestock disorders/toxicity

No health problems are known in grazing livestock. It is low in oxalate and therefore is a suitable pasture grass for horses.

Cultivars

Cultivar	Seed source/Information
Swann 	Progressive Seeds

Further information

Grassland Species Profiles
GrassBase
NSW DPI Agnote DPI-391 Forest bluegrass
Tropical Forages database (SoFT) - Forest bluegrass

Acknowledgements

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Author and date

Dr. Walter Scattini

December 2008