



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

Angleton grass

Scientific name(s)

Dichanthium aristatum

Strengths

- Adapted to heavy black cracking-clay soils.
- Tolerant of two weeks or more inundation.
- Salt tolerant.
- Palatable but varies with variety or ecotype.
- Tolerates heavy grazing and assumes a prostrate growth habit.
- Persists under low soil nitrogen availability.
- Provides a good ground cover that protects soil from erosion and minimises weed growth.

Limitations

- Relatively low seedling vigour compared with vigorous grasses such as rhodes grass.
- Low forage production in unfertilised old stands, especially those heavily grazed.
- Competitive with legumes such as annual medics and desmanthus.

Plant description

Plant: A perennial tussock grass with slender stems and varying degrees of stolon development. Young plants are prostrate to semi-erect with foliage to 80 cm high, becoming erect at maturity.

Stems: Stems are initially prostrate then becoming erect, 1-1.8 m long at maturity with or without short woolly nodes. Flowering stems in most ecotypes have dense, short hairs for 1.5-2.5 cm immediately below the inflorescence (the variety 'Floren' has sparse hairs).

Leaves: Leaf blades are up to 25 cm long and 8 mm wide.

Seedhead: A panicle with 2-5 branches, sometimes only 1 under unfavourable conditions, 2-8 cm long and hairy at base. Awns on seed are 16-30 mm long.

Seeds: 0.5-1.0 million seeds/kg.

Pasture type and use

Sub-tropical permanent pasture, particularly in seasonally flooded or waterlogged land, and also used in non-flooded situations. Suitable for grazing and for hay. Good for waterway and bank stabilisation and suppression of invasive weeds such as lippia in flood-plain areas.

Where it grows

Rainfall

Angleton grass is moderately drought tolerant and can be killed by prolonged dry conditions. It is usually sown in areas receiving 750-1400 mm/yr.

Soils

It is one of the few introduced warm season grasses suited to very heavy black, self-mulching clays with alkaline pH but is adapted to a wider range of soils including moderately acid red and black clays, clay loams and loams. It tolerates waterlogging.

Temperature

Angleton grass produces little growth in spring in the subtropics but good summer-autumn feed and tops are killed by frost.

Establishment

Companion species

Grasses: creeping bluegrass, Bambatsi and purple pigeon grass.

Legumes: lucerne, annual medics, desmanthus.

Sowing/planting rates as single species

2-4 kg/ha. It does not flow readily and special equipment or pelleted de-awned seed may be used in sowing a pasture.

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. Following harvest seed takes about 6 months to reach maximum germination. It establishes well from seed broadcast onto a cultivated seedbed or dropped on surface in furrow and followed by press-wheels.

Inoculation

Not applicable.

Fertiliser

No fertiliser is required to establish angleton grass on suitable soils.

Management

Maintenance fertiliser

Application of 100 kg N/ha will greatly increase dry matter production and 20 kg S/ha may be needed to maximise response on some heavy clay soils. Phosphorus may be required if soil analysis or previous experience indicates a need.

Grazing/cutting

Angleton grass is tolerant of heavy grazing. It can be cut for hay.

Seed production

Seed production expected from fertilised stands under favourable moisture conditions is 75-150 kg/ha. Crop may be direct-headed or brush-harvested.

Ability to spread

It spreads by seed and expands slowly by stolons.

Weed potential

It will invade degraded native pasture and on roadsides subject to soil disturbance from grading. It is not a significant weed in cropping.

Major pests

No major pests are known.

Major diseases

Ergot can cause problems in seed production, especially in some naturalised ecotypes.

Herbicide susceptibility

It is killed by glyphosate and is tolerant of atrazine.

Animal production

Feeding value

The growth of cattle grazing tropical pasture grasses, including angleton grass, is limited by low dry matter digestibility, especially in winter. Supplementary nitrogen in diet will increase feed intake in deficient situations.

Palatability

Vegetative growth is very palatable and palatability declines as flowering stems mature in autumn and dry off in winter, especially after frost. Palatability varies with naturalised ecotype, of which there are several introductions in Queensland.

Production potential

Liveweight gains of 1 kg/hd/day in summer and small losses in winter are expected from cattle.

Livestock disorders/toxicity

No health problems are known in grazing livestock.

Cultivars

Cultivar	Seed source/Information
Floren [Ⓟ]	Progressive Seeds

[Ⓟ] Denotes that this variety is protected by Plant Breeder's Rights Australia

Further information

GrassBase
Grassland Species Profiles
Tropical Forages database (SoFT) - Angleton grass
Tropical Grasslands Vol. 18:116-174
Qld DPI 'Floren bluegrass (Angleton bluegrass)'
NSW DPI Agnote DPI-394 Bluegrass (Angleton grass)