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Strickland Finger Grass

(Digitaria milanjiana cv Strickland)

A. G. Cameron, Principal Pastures and Extension Agronomist, Darwin

DESCRIPTION

Finger grass (*Digitaria milanjiana*) is a vigorous stoloniferous (runner) perennial grass. It is similar in appearance to pangola grass (*D. eriantha*) but is leafier.

Leaf blades are 15 to 30 cm long, 3 to 13 mm wide and can be hairy. Flowering stems can reach a height of 2.5 m. The flower head has two to 18 spikes, 5 to 25 cm long. Seeds are small, numbering about 2 million per kg.

Two released cultivars are available in Australia, Strickland and Jarra.

Strickland is blue-green in appearance and is less hairy than Jarra. In a wet season, it produces runners up to 2.5 m long, foliage up to 70 cm high and flowering stems up to 1.3 m tall. The average stem thickness and leaf width are smaller than in Jarra. The flower head usually has eight to 10 spikes, 9 to 15 cm long.

Jarra is dark green and purple in appearance and hairy. In a wet season, it produces runners up to 5 m long, foliage up to 80 cm high and flowering stems up to 1.8 m tall. The average stem thickness is 1.9 mm and the average leaf width is 13.2 mm.

Figure 1. Strickland finger grass seed head

CLIMATE AND SOILS

Finger grass is a native of tropical Eastern and Southern Africa, from Ethiopia down to South Africa. It is found in semi-arid to wet equatorial areas, with annual rainfall averaging between 450 to 1700 mm. It grows in grasslands or on sandy loam soils and in open woodlands on heavy black or sandy soils.

Strickland is suitable for areas receiving annual rainfall of over 1100 mm. It will persist with 900 mm annual rainfall but will be less productive.

It will grow on a wide range of soil types from sands to clays, including solodics, lithosols, yellow earths, red earths and sandy red earths. Strickland will withstand water-logging but not prolonged flooding. Strickland is drought-tolerant. Currently, it is believed that Jarra will grow better than Strickland in wetter areas and Strickland will grow better than Jarra in drier areas. However, Strickland has shown more tolerance to water-logging than Jarra in Queensland.

SOWING

Sow in December or January when there is a good chance of follow up rain. Seed should be sown at 1 to 4 kg/ha, depending on seedbed preparation and proposed end use. For best results, seed should be sown onto a well-prepared, moist, weed-free seedbed.

Freshly-harvested seed has a low germination rate because of post-harvest dormancy. Germination improves after five to six months of storage.

FERTILISER REQUIREMENTS

Although its fertiliser needs have not been studied closely in the Top End, Strickland responds rapidly to fertilisers. The types and amounts of fertiliser needed will depend on soil type, rainfall, pasture mix and intended use of the pasture.

In general, the seed should be sown with 100 to 200 kg/ha of superphosphate, or its equivalent. Maintenance applications should be 50 to 100 kg/ha/year. Potassium may be required on some soils and also for haymaking.

Strickland will respond to split applications of nitrogen during the wet season, producing similar yields to pangola grass.

YIELD

An annual dry matter yield of up to 15 t/ha has been achieved from well-fertilised, un-grazed pastures in the Top End.

Established Strickland pastures produce seed heads throughout the wet season. Three seed crops can be harvested: in December, in February and in late April/early May. Production will depend on rainfall, on cutting back the pasture and on fertiliser applications, particularly nitrogen.

The February crop can yield up to 100 kg/ha of seed, while the April/May crop will generally yield up to 40 to 50 kg/ha and the December crop will yield less than that.

The seed can be harvested with a beater harvester, a brush harvester or a conventional header. Harvesting should start when about 10% of mature seed has been shed from seed heads. The seed should be harvested in seven to 10 days before most of it is shed.

Figure 2. Strickland pasture in the early wet season

GRAZING

Strickland grass is very palatable to all types of stock as green feed, dry feed or as hay. It can be used in mixed pastures or as a hay crop. It should not be grazed in the wet season of its establishment. It should be only lightly grazed in the first dry season.

MIXTURES

Legumes which could be sown in mixtures with Strickland are Glenn, Lee, Wynn, Oolloo, Cavalcade, Bundey, Milgarra, Maldonado, Amiga, Verano, Seca and Siran.

HAY

Good quality hay can be made from Strickland. It is highly digestible and is well accepted by stock.

PESTS AND DISEASES

Crab grass leaf beetle (*Lema rufotincta*) adults and larvae can severely damage seedlings and young leaf tissue during the early part of the wet season. This problem is generally short-lived as the small beetles are often quickly controlled by natural predators. If necessary, they can be controlled by spraying.

Note: Strickland is a protected variety under the *Plant Breeders Rights Act 1994*. Progressive Seeds Pty Ltd has the exclusive production and marketing rights for this variety. Unauthorised commercial propagation or any sale, conditioning, export, import or stocking of propagating material of this variety is an infringement under the Act.

WARNING

Pasture plants have the potential to become weeds in certain situations. To prevent that, ensure that pasture seeds and/or vegetative materials are not inadvertently transferred to adjacent properties or road sides.

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