Agnote

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Jarra Finger Grass

(Digitaria milanjiana cv Jarra)

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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 hairy, measuring between 15 to 30 cm in length and 3 to13 mm in width. Flowering stems can reach to a height of 2.5 m. The flower head has two to 18 spikes, each 5 to 25 cm long. Seeds are small, numbering about 2 million per kg.

There are two released cultivars available in Australia, Jarra and Strickland.

Jarra is hairy, dark-green and purple in colour. During the wet season, it produces runners up to 5 m long, foliage up to 80 cm tall and flowering stems up to 1.8 m high. Average stem thickness is 1.9 mm and average leaf width is 13.2 mm. The flower head usually has six to11 spikes, each 10 to16 cm long.

Strickland is less hairy than Jarra and is blue-green in appearance. During the 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. Its average stem thickness and leaf width are smaller than those of Jarra. See Agnote 740 (E65) *Strickland Finger Grass.*

Figure 1. Jarra 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 average annual rainfall between 450 to 1700 mm. It grows in grasslands or sandy loam soils and in open woodlands on heavy black or sandy soils.

Jarra is suitable for areas receiving over 1100 mm annual rainfall. Although it will persist in areas with 900 mm annual rainfall, it 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. Jarra will withstand water-logging but not prolonged flooding. Jarra is drought tolerant. Current predictions indicate that Jarra will grow better than Strickland in wetter areas, and Strickland will grow better than Jarra in drier areas.

SOWING

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

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

FERTILISER REQUIREMENTS

While fertiliser requirements have not been studied closely in the Top End, Jarra is very responsive to applied fertilisers. The types and amounts of fertiliser needed will depend on soil type, rainfall, pasture mix and intended use of the pasture.

Generally, the seed should be sown with 100 to 200 kg/ha of superphosphate, or its equivalent. Maintenance applications should be 50 to100 kg/ha, annually. Potassium may be required on some soils, particularly for more intensive use, such as haymaking.

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

Figure 2. Jarra finger grass stem and leaf

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

The February seed crop can yield up to 100 kg/ha, the April/May seed crop up to 40 to 50 kg/ha and the December seed crop below that.

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

GRAZING

Jarra 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 establishment. It should be only lightly grazed in the first dry season.

MIXTURES

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

HAY

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

During haymaking, leaf hairs can become airborne, interfering with machine operations.

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.

Magpie geese and wallabies find Jarra extremely palatable and can defoliate young pastures early in the wet season, if present in large numbers.

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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