Agnote

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Guinea Grass

(A pasture grass for deep, well-drained soils)

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DESCRIPTION

Guinea grass (*Panicum maximum*) is a tall perennial grass that forms dense tussocks. Its leaves are broad, flat, and long; they taper to a fine point. The leaf blades and sheaths have soft hairs.

Flowering stalks of taller varieties can reach up to 3 to 4 m in height.

Seeds are small, numbering 2.4 million/kg.

The recommended cultivars for sowing in the Top End are Common Guinea, Coloniao, Hamil and Riversdale.

Common Guinea: It is the most widely planted cultivar in northern Australia. It was introduced before 1900. At Coastal Plains Research Farm, cattle on Common Guinea grass have consistently gained 20 to 30 percent more live-weight than on either Coloniao or Hamil

Coloniao: It was introduced around 1930; it is a very tall cultivar, which is coarser and more vigorous than Hamil.

Hamil: It is a tall cultivar, which is more robust and much coarser in appearance than Common Guinea grass. During the growing season, its performance is equal to, or better than, that of Common Guinea grass. However, it is less palatable in the dry season after it hays off. It was introduced in 1935. It is suitable for making hay.

Figure 1. Guinea grass and the seed hulls of giant panic (1), green panic (2) and Guinea grass (3)

Riversdale: It was selected as a pure and uniform line of Common Guinea grass, which is often contaminated with a weedy, unpalatable coarse Guinea grass.

CLIMATE AND SOILS

Guinea grass is a native of tropical and sub-tropical Africa.

It is suited to areas with an annual rainfall of over 1100 mm, but grows better with higher rainfall.

There is naturalised "Darwin" Guinea grass in the wetter areas around Darwin, along creeks and in low-lying areas. This form of Guinea grass was introduced to Darwin before 1900. It is similar to Common Guinea grass.

Guinea grass adapts to a wide range of soils, but grows best on deep, well-drained soils of medium to high fertility.

It has a deep root system, which allows it to tolerate some drought. However, it does not survive long dry spells.

Guinea grass will persist on deep, well-drained soils, which stay wet longer into the dry season, such as the more fertile levee soils.

SOWING

A well-prepared, weed-free seed-bed is required for good establishment. For best results, the seed should be sown by a combine or a drum seeder, by dropping seed onto the soil surface and rolling.

A seeding rate of 2-6 kg/ha is common. Use the higher rate if weed competition is likely to be strong. Use the lower rate if it is in mixtures with other grasses or legumes.

MANAGEMENT

Fertiliser requirements

Fertiliser requirements have not been studied in the Top End. Types and amounts of fertilisers required will depend on the soil type, rainfall, pasture mix and intended use of the pasture.

Generally, seed should be sown with 100 - 200 kg/ha of super phosphate. Maintenance applications should be 50 - 100 kg/ha, yearly.

Potassium may be required on some soils and for a more intensive production, such as haymaking.

As Guinea grass responds strongly to nitrogen, the fertiliser should be applied to pure grass swards in split applications during the wet season

Grazing

Guinea grass should not be stocked during the wet season of establishment, except in mixtures where the grass is severely out-competing legumes. In such cases, heavy grazing for a short period is recommended.

Try not to graze until well into the first dry season, to allow the plants to establish and set seed. Normal grazing can be started in the mid wet season of the second year.

Guinea grass will withstand heavy stocking, except during the storm period early in the wet season. Hamil in particular will not tolerate continuous grazing early in the wet season. A grazing system which carries more stock during the wet season than during the dry season is recommended. It is better not to graze the tussocks below 15 - 25 cm.

Mixtures

The following legumes can be included in mixtures: Amiga, Verano, Cavalcade, Bundey, Maldonado, Glenn, Siran, Seca, Wynn and Calopo.

Hay

Good quality hay can be made from Guinea grass, particularly from Common Guinea grass and Riversdale.

Tolerance

Guinea grass will tolerate burning and it is extremely tolerant to shading by trees and other pasture species.

PESTS AND DISEASES

Leaf spot (*Bipolaris hawaiiensis*) is often found on leaves during the wet season. There is no evidence that this disease affects production.

Ergot (*Claviceps* sp) can infect seed heads in some years. This disease destroys the seed and can greatly reduce the quality of harvested seed.

ACKNOWLEDGMENT

The authors wish to thank the Westpac Banking Corporation for permission to reproduce Figure 1 from the publication 'Pastures, Legumes and Grasses', Bank of New South Wales, Sydney, 1965.

WARNING

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

For further information please contact your nearest Weeds Branch of the Northern Territory Government by calling (08) 8999 5511.

Please visit us at our website:

www.nt.gov.au/d

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