Agnote

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Para Grass

(A pasture grass for wet and flooded soils)

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DESCRIPTION

Para grass (*Brachiaria mutica*) is a coarse, vigorous, trailing perennial which is useful for wet and flooded soils in the higher rainfall areas of the Top End of the Northern Territory (NT).

It has stout runners (stems, stolons) which branch and root readily at all nodes. The runners grow up to 5 m long, but the sward grows only to a height of 1 m. Leaves and leaf sheaths are generally hairy; leaves are 6-20 cm long and 1-2 cm wide. The seeds are small, numbering about 935 000/kg.

CLIMATE AND SOILS

Para grass is a native of tropical Africa and South America. It was introduced into Australia in 1880, and into the NT between 1905 and 1910.

It prefers annual rainfall of more than 1000 mm.

There are naturalised areas of a "local" Para grass in the Top End of the NT, including at Oenpelli, Labelle Station and wet and low-lying areas around Darwin, including the Narrows, Winnellie and the Botanical Gardens. The 'local' Para grass does not produce viable seed and must be planted with cuttings.

Para grass will grow on a range of soil types, including solodic and cracking clays, but its adaptability to a range of water conditions is its most important characteristic. It is adapted to wet conditions, water-logging and prolonged flooding. It is suitable for shallow, flooded areas, provided the depth of water does not exceed 1 m. It is also very drought hardy and can survive long dry spells.

It is only recommended for wet or seasonally flooded areas in the Top End. Areas need to stay wet until June for Para grass to persist.

ESTABLISHMENT

Seed

Para grass can be sown by seed at 1-2 kg/ha. However, seed is expensive, germination is low and small seedlings can be killed by flooding. For good establishment, seed must be sown into a well-prepared weed-free seedbed and lightly rolled. Sowing should be in early to mid December to allow germination and growth before floods occur. Freshly-harvested seed has a low germination rate because of seed dormancy. Germination improves after six to eight months.

Sowing Para grass by seed has generally not been successful in the NT.

Cuttings
Establishment has been mostly with cuttings, containing two to three nodes, with at least one node being buried.

Para grass requires protection from excessive weed competition. A well-prepared seedbed is therefore an advantage.

Cuttings are generally planted in mud or shallow water (up to 15 cm). Planting occurs in January and February, depending on rainfall. Cuttings should be planted on a square grid at 2-4 m intervals.

MANAGEMENT

Fertiliser requirements
Para grass pastures are generally not provided with fertiliser on fertile clay floodplain soils. However, they need fertiliser on less fertile soils, at least initially.

Para grass is very responsive to nitrogen (N) fertilisers. An application of N in the first season is useful to improve establishment and help young plants to overcome weed competition.

N fertiliser gives increased yields. However, the greatest returns are achieved at lower levels of fertiliser use (100-200 kg N/ha). But crude protein content is not increased at this rate of N application.

The application of phosphate fertilisers by themselves has not been shown to increase dry matter content of Para grass.

Yield
Dry matter yield of 4-7 t/ha has been achieved in pastures with no N application. Yields of 10-15 t/ha have been achieved when 100-200 kg/ha N fertiliser was used early in the wet season.

Seed yield of 11-27 kg/ha has been achieved in the Top End in May.

Grazing
As Para grass is very palatable, grazing of new plantings should be delayed until the cuttings are well rooted and well developed. It is desirable not to graze the pasture in the first year because early grazing results in the pulling out and destruction of cuttings. It generally takes 12 months for a stand to develop properly.

Para grass is normally used during the dry season as saved fodder. Allowing animals onto ground which is too wet can damage the stand through pugging.

Para grass should be regarded as a browse grass. Grazing should be controlled to prevent excessive damage to runners. With light stocking, animals eat only the leaves. With heavy stocking, stems are destroyed to the crown or roots, which results in a very slow recovery. Para grass can withstand heavy grazing while the soil moisture is high and the plants are actively growing. Under normal conditions it will not stand continuous grazing.

A stocking rate of one animal/1.5-2 ha is recommended as a safe stocking rate for Para grass.

Mixtures
The following legumes may be included in mixtures: Glenn, Lee, Murray phasey bean, Cavalcade, Bundey and Maldonado.

Ponding

Banks can be constructed to create artificial ponds to store runoff water to grow Para grass in areas where rainfall is too low, or to extend the growth period in other areas. Para grass can be planted in ponded areas as they dry out, thus extending planting until July. The legumes Glenn, Lee and Murray are more suitable in ponds.

Other

Para grass is tolerant of soil salinity. It will withstand flooding for a number of weeks provided some green material is above the water surface. Stands of Para grass can thin out if flooded, grazed, cut very short or burnt.

A hot fire can make Para grass vulnerable to drought, overgrazing or flooding. Stands can be dramatically thinned and regeneration is very slow after a hot fire. Therefore, it should not be burnt.

PESTS AND DISEASES

None have been identified which affect production in the NT.

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 on (08) 8999 5511.

Please visit us at our website:

www.nt.gov.au/d

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