Perennial forage sorghum

Scientific name(s)

Sorghum hybrid

Strengths

- Large seed.
- Easy to harvest, handle and sow.
- Can be drilled into moist soil
- Good emergence from depth(to 50mm).
- Easy to establish on heavy black cracking-clay soils.
- Vigorous seedlings.
- High growth rate.
- Moderate drought tolerance.
- Tolerant of temporary waterlogging.

Limitations

- Needs moderate to high fertility.
- Intolerant of heavy grazing.
- Can cause prussic acid poisoning under some conditions

Plant description

Plant: An erect, robust, short-lived perennial tussock grass with numerous tillers growing to about 3.5 m in height at maturity under good conditions. Short rhizomes that curve upwards to produce new shoots usually 5 - 10 cm from the parent plant.

Stems: Stems usually robust (about 1 cm in diameter) and erect.

Leaves: Leaves about 3 cm across, tapering to a fine point and with a membranous ligule.

Seedhead: Seedhead is a large open pyramidal panicle with secondary and tertiary branches.

Seeds: 150,000 seeds/kg

Pasture type and use

It is used as a short-term perennial pasture, or as a short-term component of permanent pasture mixtures.

Where it grows

Rainfall

Usually sown in areas with 500 - 1200 mm/yr.

Soils

Adapted to fertile loams to heavy black clays.

Temperature

Grows during the warm season, and tops are killed by heavy frost.

Establishment

Companion species

Grasses: Angleton grass, Bambatsi panic, creeping bluegrass, rhodes grass.

Legumes: Annual medics, burgundy bean, butterfly pea, llanos macro (NT), lucerne, stylos, Oolloo centro (NT).

Sowing/planting rates as single species

3 - 4 kg/ha.

Sowing/planting rates in mixtures

1 - 2 kg/ha.

Sowing time

Sown from spring to late summer.

Inoculation

Not applicable

Fertiliser

Fertiliser is not required for establishment on suitable fallowed soil.

Management

Maintenance fertliser

100 kg N/ha/yr is needed to maintain high production and to improve persistence.

Grazing/cutting

Benefits from a periodic ungrazed period in the growing season and it can be cut for hay.

Seed production

250 - 500 kg/ha/yr.

Ability to spread

It spreads by seed on bare fertile soil and expands by short rhizomes.

Weed potential

It has low weed potential in native pastures, but is a significant weed in some cropping lands. It is a declared weed in some NSW Shires.

Major pests

Sorghum midge can reduce seed production.

Major diseases

Ergot may greatly reduce seed production.

Herbicide susceptibility

It is killed by glyphosate and is tolerant of atrazine.

Animal production

Feeding value

Nutritive value depends on soil fertility. It provides good yields only on soils which are at least moderately fertile. Nitrogen fertiliser increases forage yield and feed quality.

Palatability

It is very palatable.

Production potential

Under continuous grazing in sub-humid Australia, steers grazing at stocking rates of 1.5 - 3/ha averaged 150 kg/hd/yr liveweight gain.

Livestock disorders/toxicity

Prussic acid poisoning may result in cattle and sheep, especially hungry animals, grazing young, droughted sorghum pastures usually less than 1 m high.

Cultivars

Cultivar	Seed source/Information
Silk	Australian Herbage Plant Cultivars
	Liverpool Plains Shire Council
Jaffa	Progressive Seeds

Further information

Tropical Forages database (SoFT) - Perennial forage sorghum

Grassland Species Profile (FAO)

Agnote 784 - Silk sorghum (NTDPI)

Acknowledgements

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Author and date

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December 2008