

Register of Australian Herbage Plant Cultivars

A. Grasses

9. Forage Sorghum

Sorghum spp. hybrid. (sweet Sudan grass hybrids) cv. SS.6

Reg. No. A-9c-1

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Origin

This variety is a selection from the American variety Sweet. A small sample of seed of Barkers Sweet Sudan grass, received by the Queensland Department of Agriculture and Stock in 1948, showed considerable variation in maturity and habit. A selection program by the Department of Agriculture and Stock, aiming to combine lower prussic acid content and improved and more uniform agronomic characteristics, resulted in the production of SS.6 (5). Seed was first released and certified in Queensland in 1954 as SS.6 sweet Sudan grass.

Seed was obtained by the New South Wales Department of Agriculture from Queensland in 1952 (1). It was grown commercially for some seasons and showed considerable variation in growth and seed colour. In 1958 selection work was commenced by the Department at the Tamworth Agricultural Research Station, using selected head material from a commercial crop. A line of SS.6 with high leaf to stem ratio, evenness in growth, and with a uniform sienna-coloured seed was developed. This formed the breeder's seed for the New South Wales type which was first certified in 1963-64 (1). Certification ceased in 1965.

The original variety Sweet resulted from a cross made at the Texas Agricultural Experiment Station in 1932 between Sudan grass (*Sorghum sudanense* Stapf or *S. vulgare* Pers. var. *sudanense* Hitch.) and sweet Sorghum cv. Leoti. The cross was back-crossed to Sudan grass and some crossing was done between F3 strains. The progenies from these crosses as well as progenies from the original back-cross were included in the mixture that was distributed to seed growers in the U.S.A. in 1943 as Sweet Sudan grass (4).

Morphological description (1,5,6)

An erect tufted annual or very short-lived perennial, tillering freely with slender culms 1.5-2 m, and narrow leaves to about 50 cm long. Not quite as tall as ordinary Sudan grass and stools more freely giving a more compact and leafy plant. The stems are juicy and sweet. The leaves are a little broader and have cloudy instead of white midribs. Panicle is conical in shape, smaller, and with shorter branches, and therefore more compact than in ordinary Sudan grass. Glumes are glossy and reddish brown or tan-coloured, totally enclosing the seeds; the lemmas have relatively short awns. The seeds are smaller, and long and narrow, compared with those of sweet sorghum; they are sienna or rich reddish brown in colour, and slightly plumper and with a smaller ratio of length to width than ordinary Sudan grass; number of seeds per kg approx. 99,000. The seed shatters less readily than in unselected Sudan grass. Most easily distinguished by the size and colour of its seed and colour of the glumes.

Agronomic characters (1,2,5,6)

Summer-growing and sensitive to frost. Adapted to rainfalls not less than 460-510 mm predominantly of summer incidence, reasonably high temperatures, and low humidities. Will grow well on a range of soils provided the drainage is good; is relatively drought-resistant. Under high rainfall conditions the incidence of rust and red spot diseases increases rapidly. Less suitable therefore for coastal than for sub-coastal and inland areas.

Cv. SS.6 flowers approximately 75 days after sowing at Tamworth, N.S.W., and will provide grazing within 8-10 weeks. It shows quick recovery after grazing and will give sustained production during summer. It is more vigorous and gives higher yields than ordinary Sudan grass, gives sweeter and juicier forage, and retains its palatability longer after maturity. It makes good hay. In the northern

irrigation districts of Victoria it has been reported (3) to perform disappointingly compared with ordinary Sudan grass.

References

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