

Register of Australian Herbage Plant Cultivars

A. Grasses

10. Pennisetum

Pennisetum purpureum Schum. (elephant grass) cv. Capricorn

Reg. No. A-10a-1

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Origin

This cultivar was bred at the Biloela Research Station, Queensland Department of Primary Industries, by selection from open-pollinated progenies of a CSIRO introduction (2). The parent material was obtained from the Institute of Animal Biology, Deodora, Brazil, in January 1940, under the name Capim Elefante var. B. and designated C.P.I.7838. It was included in plant introduction trials at Fitzroyale in central Queensland (4) and proved to be of the Merker type of *Pennisetum purpureum*. In 1950 vegetative material was transferred to the Biloela Research Station where it was grown under the Queensland introduction number Q.2940. When sown from seed it gave rise to a freely segregating population indicating a high degree of cross-pollination. Selection was made from a wide range of variants found in an area of 1.66 ha established from seed at Biloela in 1958 (2). The aim of selection was a late-flowering "grazing type" of medium height with thick succulent stems, strong crown, and vigorous stooling. Plants showing these characteristics were vegetatively multiplied for further evaluation. The type described as 9-0-1 was chosen (2), named Capricorn, and released by the Queensland Pasture Liaison Committee in 1962 (3).

Morphological description (3)

A tufted perennial with short creeping rhizomes and erect culms about 1.8-2.4 m in height, Capricorn is shorter and smaller in all its parts than the robust forms of the species, which may attain 4-5 m in height. Leaves are light green, broad, and tapering, with a strong midrib; the leaf sheaths finely pubescent; the ligule a narrow rim bearing a dense fringe of white hairs; auricles are absent. The inflorescence is a dense cylindrical spike. The spikelets, solitary or in bundles of 2-4, are one-flowered and each is surrounded by an involucre of minutely scabrid or slightly plumose bristles; empty glumes 3, the first being small and rudimentary; lemma, lanceolate, acuminate, minutely roughened upwards, and usually 5-nerved at least in upper part. Seeds yellow, smooth, shining, small at about 3 million per kg.

Agronomic characters (1-4)

Capricorn, like the common type of elephant grass that is naturalized in several parts of coastal Queensland, grows most vigorously in summer under high temperatures and humidity, provided the rainfall is adequate; it makes little growth during dry periods or during winter and is susceptible to frost. It is therefore adapted to tropical coastal conditions of high rainfall or of rainfall up to 2500 mm per year. Like ordinary elephant grass it is relatively drought-resistant and will tolerate dry spells, responding quickly when adequate moisture is restored. It also recovers rapidly after cutting or grazing.

Observations from a wide range of centres in Queensland (3) and at Darwin (1) show that Capricorn is superior - especially in terms of leafiness, retention of succulence in the mature stage, and stock acceptance - to the common type of elephant grass; it is later-flowering and less stemmy than the ordinary type. Little seed is produced and this is of low viability. Vegetative propagation is practised, and is required to maintain the characters of the cultivar.

References

1. Atkins, A.V. (1966). Personal communication. Agric. Branch, N.T. Admin., Darwin.
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3. Grof, B. (1965). Personal communication. Trop Agric. Res. Stn, Dep. Primary Ind., South Johnstone, Qld.
4. Miles, J.F. (1949). Plant introduction trials in central coastal Queensland, 1936-46. CSIRO Aust. Div. Plant Ind. Divl. Rep. No. 6.