

Register of Australian Herbage Plant Cultivars

A. Grasses

7. Paspalum

Paspalum plicatum L. (plicatum) cv. Bryan

Reg. No. A-7b-3

Registered 10 November 1975

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Origin

Introduced by Dr W.W. Bryan, Division of Tropical Agronomy, CSIRO, from the College of Agriculture, Mayaguez, Puerto Rico in 1956, as CPI 21378. The original collection was made in the Venezuela lowlands (Bryan, personal communication). The cultivar has been extensively tested in south-eastern and central Queensland by the Queensland Department of Primary Industries and CSIRO since c. 1962.

Submitted by the Division of Tropical Agronomy, CSIRO, and recommended for registration by the Queensland Herbage Plant Liaison Committee. Breeders' seed will be maintained by the CSIRO Division of Tropical Agronomy. Registered, November 1975.

Morphological description

Tufted perennial growing to a height of c. 130 cm; leaf blades on mature stems have hairs to 5.0 mm long on the adaxial surface at the base near the margins; this hair character is similar in cv. Rodd's Bay and serves to distinguish cv. Bryan and cv. Rodd's Bay from cv. Hartley, in which the leaf blades (and sheaths) on mature stems are entirely glabrous; there is a distinct collar of hairs at the junction of leaf blade and sheath on the abaxial surface; from this collar a zone of hairs c. 1.0 mm long extends for at least 2 cm down the sheath tapering towards the midrib; these last two hair characters distinguish cv. Bryan from cv. Rodd's Bay, which is glabrous on the sheath; leaf and sheath hair characters of plicatum cultivars are not reliable on seedlings or new regrowth; ligule is c. 1.0 mm long. Inflorescence 9-26 racemes, 2-10 cm long; rachis 1.0 mm broad with a few hairs at the base of the racemes c. 5.0 mm long; spikelets in pairs 2.0 mm long, 1.5 mm wide, usually one of a pair is not developed at the base of the raceme; sterile lemma, 5-nerved glabrous; glume pubescent, 5-nerved; fruit dark brown, shiny.

Agronomic characters

The plant has a similar growth form to cv. Hartley. The leaves of cv. Bryan are generally broader and less upright in growth than cv. Rodd's Bay. The Bryan cultivar is adapted to coastal soils of low fertility and its production is less affected by drought than that of the other two cultivars (Evans 1967). It is compatible with legumes and forms productive stable grass legume pastures (Evans 1967; 1968) and is apparently less competitive than cv. Rodd's Bay which has been shown to be very competitive with legumes (Bryan 1968). Comparative seed yields from these cultivars show that Bryan is heavier yielding (250 kg ha⁻¹) than cv. Rodd's Bay (148 kg ha⁻¹) or cv. Hartley (130 kg ha⁻¹) with seed numbers/kg of 655,500, 600,100 and 535,500 respectively (Evans, unpublished data). Flowering time is similar to cv. Rodd's Bay but earlier than cv. Hartley; seed heads are extended well above the leaf canopy and present no problem to harvesting.

References

- Bryan, W.W. (1968). *Aust. J. Exp. Agric. Anim. Husb.* **8**, 512 and 683.
Evans T.R. (1967). *Tropical Grasslands*. **1**, 143, 182.
Evans, T.R. (1968). CSIRO Div. Trop. Past. Annu. Rep. 1967/68.