Register of Australian Herbage Plant Cultivars

A. Grasses
12. Buffel
Cenchris ciliaris L. (buffel grass) cv. Biloela

Reg. No. A-12a-1
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Origin

Derived from seed (C.P.I.6934) received in 1937 from R.R. Staples, Botanist, Veterinary Research Laboratory, Mpwapwa, Tanganyika, as Type D. This material had been collected at Dodoma, Tanganyika (1). It was grown by J.F. Miles at the CSIRO plant introduction centre at Fitzroyale, near Rockhampton, and he advocated its regional testing (12). Following establishment by the Queensland Department of Agriculture and Stock, at Glenmore, near Rockhampton, as Q.2948, it was grown at a number of centres and sent to the Biloela Research Station in 1950, which released it to commercial growers in December 1955 as the Biloela variety (9).

Morphological description (4 et al.)

An erect, tussocky, deeply rooting perennial growing to 1.5 m high; 7-11 noded culms often arising from rhizomes. The leaves are glaucous; the leaf blade at its maximum width about as wide as the unrolled leaf sheath at its mid point; the sheath glabrous; the sheath and lower surface of the blade minutely scabrid on many nerves. The ligule is a ciliate rim, 1.0-1.5 mm long. The inflorescence is a spike-like cylindrical panicle about 7 cm long on a peduncle which is smooth, or almost smooth, to the extremity; rachis flexuous. The spikelets occur in clusters of 1 to 3, surrounded by and deciduous with a minutely peduncled involucre of two rows of bristles; they are pallid to red in colour and densely packed on rachis. The inner bristles of the involucre are united for only 0.1-0.2 mm. Seed heads are straw-coloured. The seed unit or fascicle comprises a cluster of 1-3 spikelets enclosed in the involucre. In Biloela there is a high proportion of single spikelets in the fascicle.

Agronomic characters (2,3,5,8,9,14,15)

Cv. Biloela, like the other varieties of buffel grass, is summer-growing, best suited to light-textured soils, hardy and productive, tolerant of heat and drought, well accepted by stock, and stands up to heavy grazing. It is grown in the 350-890mm rainfall belt and established stands are drought-resistant.

It is a tall, vigorous, high-yielding type. It is better suited to clay soils than the shorter varieties (16), and though also intolerant of flooding has compared better with native grasses on the heavier soils. Compared with other cultivars of the species it maintains high yields under moderately saline conditions (7).

The seedling drought resistance of Biloela is superior to that of cv. West Australian (6); its superior vigour to cv. Gayndah at Katherine, N.T., is allied with poorer compatibility with Townsville stylo (13). Cv. Biloela is later flowering than cv. West Australian; when spring sown it flowers before cv. Gayndah but when sown after mid summer cv. Gayndah flowers before it (10). It is apomictic like most varieties of buffel and seed production is prolific. The feeding value of cv. Biloela is high; digestibility of dry matter and of crude protein was higher than that of cv. West Australian, but voluntary intake was lower (11).

References

1. Allen, G.H. (1956). A new buffel grass for Queensland farmers. *Qd. Agric. J.* **82**, 187-8.
2. Bisset, W.J. (1963). There's a place for sown pastures in the Central West. *Qd. Agric. J.* **89**, 282-8.
3. Bisset, W.J. (1964). Try buffel and green panic with brigalow pastures. *Qd. Agric. J.* **90**, 129-30.
4. Blake, S.T. (1967). Personal communication. Herbarium, Botanic Gdns, Brisbane.
5. Bryant, W.G. (1961). Buffel grass (*Cenchrus ciliaris* L.) for erosion control. *J. Soil Conserv. Serv. N.S.W.* **17**, 135-48.
6. Edye, L.A., Humphreys, L.R., Henzell, E.F., and Teakle, L.J.H. (1964). Pasture investigations in the Yalleroi district of central Queensland. Pap. Fac. Agric. Univ. Qd. 1(4), 153.
7. Graham, T.W.G., and Humphreys, L.R. (1970). Salinity responses of cultivars of buffel grass (*Cenchrus ciliaris*). *Aust. J. Exp. Agric. Anim. Husb.* **10**, 725-8.
8. Flemons, K.F., and Whalley, R.D. (1958). Buffel grass (*Cenchrus ciliaris*). *Agric. Gaz. N.S.W.* **69**, 449-60.
9. Grof, B. (1957). Notes on Biloela buffel grass. *Qd. Agric. J.* **83**, 111-18.
10. Humphreys, L.R. (1967). Buffel grass (*Cenchrus ciliaris* L.) in Australia. *Trop. Grassl.* **1**(2), 123-34.
11. Milford, R. (1960). Nutritional values for 17 subtropical grasses. *Aust. J. Agric. Res.* **11**, 138-48.
12. Miles, J.F. (1949). Plant introduction trials in central coastal Queensland. CSIRO Aust. Div. Pl. Ind., Divl. Rep. No. 6.
13. Norman, M.J.T. (1962). Performance of pasture grasses in mixtures with Townsville lucerne at Katherine, N.T., *Aust. J. Exp. Agric. Anim. Husb.* **2**, 221-7.
14. Purcell, D.L. (1964). Gidyea to grass in the Central West. *Qd. Agric. J.* **90**, 548-58.
15. Sillar, D.I. (1963). Pastures for cleared brigalow near Mackay. *Qd. Agric. J.* **89**, 321-5.
16. Wilson, R.G. (1961). Sowing pastures in south-west Queensland. *Qd. Agric. J.* **87**, 214-25.