

Register of Australian Herbage Plant Cultivars

A. Grasses

8. *Setaria*

Setaria sphacelata (Schum) Stapf ex Massey (*setaria*) cv. **Kazungula**

Reg. No. A-8a-2

Registered prior to December 1971

Published in the 2nd Edition of Register of Australian Herbage Plant Cultivars 1972

Origin

Kazungula is an ecotype, native to Northern Rhodesia (Zambia), and developed in South Africa for grazing and hay production (1). The seed grown in Australia originated from material introduced by the New South Wales Department of Agriculture from Pretoria in 1949 (12). Grown originally at the Grafton Agricultural Research Station (12), seed from the Pretoria introduction was subsequently multiplied for commercial use by Mr. J. Redrup of Terranova Tropical Pastures Pty. Ltd., in 1962.

Morphological description (1, 5, 7)

Kazungula differs from cv. Nandi in being a more robust and coarser form; it is a tetraploid with $2n = 36$. Plants may attain a height of 2 m at flowering with panicles measuring up to 38 cm in length. The seed heads are lighter in colour than cv. Nandi and have a greater tendency to bend. The purple coloration on the sheaths of the basal leaves is less pronounced and the nodes on the stems are a paler red. The leaves are more of a blue-green and the stigmas are purple. Development of the red coloration in the seedling occurs later than in cv. Nandi and is never as prominent. Both hairy and glabrous plants occur. Seed, however, is slightly smaller than in Nandi, averaging 2.4 mm long and 1.1 mm broad, and averages 1.5 million per kg (10).

Agronomic characters (4, 6, 7, et al.)

Compared with cv. Nandi, Kazungula has the following agronomic features. It flowers up to one month later in spring and has more of a peak flowering period (5). Its early spring growth is not as rapid or tall and also not as stemmy as Nandi but it has a marked peak summer growth period during which yield is greater than Nandi (5, 7).

It is a little hardier than Nandi and more adaptable. It is slightly more frost-tolerant especially under waterlogged conditions; it is a little more drought-resistant and better suited to the more shallow soils and lower rainfall situations; and it has considerable tolerance to prolonged waterlogging and is suitable to areas frequently inundated with flood water (2) and for irrigation areas (3).

Kazungula is a little quicker to establish than Nandi. It is more aggressive and thus more difficult to maintain a legume balance in the pasture. It is higher in sodium content than Nandi (6), has a far higher oxalate content (up to 7% of the dry matter expressed as anhydrous oxalic acid) (8), and has a somewhat better in vitro digestibility (6). Cattle accept stubble grazing after seeding of Kazungula more readily than of Nandi (11). It is rarely attacked by the leaf spot fungus *Piricularia*.

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