Register of Australian Herbage Plant Cultivars

A. Grasses
6. Panic *Panicum maximum* var. *trichoglume* Eyles (Green panic) cv. Petrie

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Origin

The original source of time of introduction to Australia of the seed from which this cultivar has been derived are not precisely known. Seed of the trichoglume variety was introduced prior to 1932 by the Queensland Department of Agriculture and Stock and grown in experimental plots in different places in north Queensland and at Lawnton (9). It was also grown by Mr. A.A. Petrie of "Madoora", Gayndah, during 1930 or 1931 (4, 6) and by 1951 Mr. Petrie had established it on approximately 324 ha (4). The seed from which Mr. Petrie's plantings were made may have been imported by Mr. Petrie himself rom India (6) and not have been part of the introductions made by the Department of Agriculture and Stock. Commercial seed stocks have been derived from Mr. Petrie's plantings. The Queensland Herbage Plant Liaison Committee named the cultivar Petrie in 1966.

Morphological description (1, 3, 9)

A tall, tufted, summer-growing perennial differing from common Guinea grass (Panicum maximum) and mainly in being smaller and less robust, in having finer stems and leaves, and in having the glumes of its spikelets covered with fine hairs. It is much smaller than cv. Hamil, its 6-8 noded stems growing occasionally to 1.8 m high, but normally not exceeding 1 m and developing crowns from 15-30 cm in diameter. It tends to have more leaves placed rather higher on the stem than most varieties of the species. Seeds 2.25-2.5 mm long, and 1.5 to 1.6 million per kg in a good clean sample.

Compared with cv. Gatton the lower surface of its leaves and its leaf sheaths are sparsely hirsute or villose rather than finely pubescent; the midrib of its leaves is less prominent and more hirsute; its leaf margins less scabrid; and its ligule consists of a ring of long downy hairs, rather than short straight bristles.

Compared with the African variety Sabi, Petrie is a little more erect; its leaves less of a bluish green, wider, and their underneath surfaces are covered with very short hairs instead of being glabrous; and its spikelets and fertile floret are larger (1).

Agronomic characters

Adapted to a wide range of climatic conditions between the 1780-mm isohyet in north Queensland and the 635-mm isohyet on the Darling Downs. It is not as well suited to the high rainfall of the coastal regions as ordinary Guinea grass but is better suited to areas a little inland (8). It is only slightly tolerant of frost, being more susceptible than Rhodes grass (2, 10). It makes very good growth under adequate moisture conditions, has a moderate degree of drought tolerance, and responds quickly to rain. Its best growth is made during early spring and at this time of the year its production is somewhat better than buffel or Rhodes (10). It possesses a marked tolerance for shade and will grow where lantana dominates on scrub soils or amongst timber and in scrub fringes.

It will grow satisfactorily on soils from pH5 to pH8 but best on those with an acid or neutral reaction. Best growth is obtained on fertile soils and marked response to nitrogen may be obtained on poorer soils. It will, however, grow on poorer soil in competition with native wire and spear grasses.

Cv. Petrie flowers from early summer to late autumn. Seed does not ripen evenly and shatters badly (2, 5)' it also has a long period of dormancy not reaching maximum viability until about 18 months after harvest (2). It makes a highly palatable forage even after it has matured (3, 7) but does not recover rapidly after grazing (8).

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