

Register of Australian Herbage Plant Cultivars

A. Grasses

2. Ryegrass

(b) *Lolium multiflorum* Lam. (Italian ryegrass) cv. Aristocrat

Reg. No. A-2b-4

Registered 20 May 1992

Originator: K. F. Lowe

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Registrar: R. N. Oram

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Released by Queensland Department of Primary Industries

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Origin

Aristocrat was developed in Queensland by natural selection over a 4-year period from cv. Midmar by Mr K. F. Lowe of the Queensland Department of Primary Industries. The selection pressure was exerted by storm rains during seed ripening in January and occurred over 4 generations of breeders' seed production in subtropical south-eastern Queensland. Basic seed was produced at Gatton Research Station in summer 1984–85. It has been recommended for registration by the Queensland Herbage Liaison Committee at the request of the Queensland Department of Primary Industries. Breeders' seed will be produced by Queensland Department of Primary Industries.

Morphological description

Aristocrat is a narrowly erect, leafy, diploid ($2n = 14$), annual cultivar, rarely persisting into the second year. However, it has shown good regeneration from seed under Queensland and Victorian conditions (K. F. Lowe unpublished data; J. McPherson pers. comm.). In south-eastern Queensland, Aristocrat seed matures 2 weeks earlier than that of Midmar, and a month earlier than that of Concord, with seed being ready for harvesting in the first week of January. At harvest time, the stand is less prone to lodging than Midmar. In all other respects, it resembles Midmar.

Agronomic characteristics

In Queensland in experiments from 1984 to 1988, Aristocrat produced forage yields equivalent to those of Midmar and Concord. In 1989 and 1991, it significantly outyielded both cultivars in mild winters. Aristocrat has produced spring yields superior to those of Midmar and Concord at Gatton (K. F. Lowe and T. M. Bowdler unpublished data), Taree (T. Launders pers. comm.), and Bega (H. Kemp pers. comm.). Aristocrat is adapted to a wide range of soils from light-textured sandy soils, through red earths, to heavy, cracking clay soils. It has produced high yields from the Atherton Tableland in the north of Queensland to Bega in southern New South Wales and appears to be more suited to the milder, coastal areas of eastern Australia.

Rust resistance is higher than in Tetila and similar to that of Midmar and Concord (K. F. Lowe unpublished data; T. Launders pers. comm.). Milk production from cows grazed on Aristocrat pastures is expected to be similar to that from Midmar pastures, which was 10% higher than from Tama pastures in experiments at Mutdapilly (Lowe *et al.* 1985).

Flowering time in Victoria was 8–10 weeks later than that of Wimmera, and the period of flowering was short (J. McPherson pers. comm.). Aristocrat is more resistant to lodging and retains seed in the head better than Midmar.

Seed production of Aristocrat is up to 50% higher than that of Midmar. Seed yields of up to 3000 kg/ha have been recorded in south-eastern Queensland for Aristocrat, compared with 2000 kg/ha for Midmar (T. M. Bowdler and K. F. Lowe unpublished data). Seed yields of up to 700 kg/ha have been achieved commercially (J. D. McPherson pers. comm.; L. Bahnisch pers. comm.).

References

Lowe K. F., Reason, G. K., Bowdler, T. M., Bird, A. C., McKeogh, P., and Moss, R. J. (1985). The performance of ryegrass cultivars under cutting and grazing in coastal south-east Queensland. In 'The Challenge: Efficient Dairy Production.' 1985 Dairy Production Conference, Albury–Wodonga.