

Register of Australian Herbage Plant Cultivars

B. Legumes

9. Annual Medics

a. *Medicago truncatula* Gaertn. var. *truncatula* (barrel medic)

cv. Borung

Reg. No. B-9a-5

Registered March 1970

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Origin

Derived from seed (C.P.I. 14532) collected in 1951 by C.M. Donald and J.F. Miles of CSIRO, from a cereal-growing area between Le Kef and Le Krib, Tunisia. The soil of this area was described as heavy clay over limestone. In tests at Canberra in 1953, this cultivar was reported to flower three days earlier than Jemalong. It was first tested in Victoria in 1955 at the Mallee Research Station, Walpeup. Since then, it has been included in a number of trials in the Wimmera and Mallee districts, and at the State Research Farm, Werribee. It has given best results on the black soils of the Wimmera.

Submitted for registration by the Victorian Department of Agriculture. Recommended for registration by the Victorian Herbage Plant Liaison Committee. Registered March 1970.

Morphological description

A semi-prostrate or prostrate, self-pollinating annual. Leaflets are cuneate to obovate, 10-20 mm long and 10-15 mm wide, truncate, slightly mucronate, with the margins serrate at the distal end. Red-brown flecks roughly parallel to the veins are at first numerous on the under surface but disappear as the leaf ages; these flecks are similar to but more numerous than those that sometimes occur on Hannaford. The stipule is deeply serrate as in Hannaford. Borung usually has 3-4 small yellow flowers in a cluster, whereas Hannaford and Jemalong usually have 2-3. In Hannaford and Jemalong, the base of the calyx is dark green, but in Borung it is that same colour as the rest of the calyx. The burrs are small, 6-7 mm wide and 4-6 mm long with 2-3.5 anti-clockwise coils. The spines are not hooked and are 1-2 mm long except for about four sharp spines on the top coil, these are 2-3 mm long and curve upwards and inwards. The burrs are about two-thirds the weight of Jemalong burrs and the seed is usually smaller than Jemalong seed; approximately 300 000 seeds/kg. These are usually 4-5 seed per burr when grown in swards, compared with about 7 in Jemalong. Chromosome number $2n = 16$.

Agronomic characters

Under Victorian conditions (2) and at Condobolin, N.S.W. (1), Borung flowers at the same time as Hannaford and Jemalong. However, it has the ability to continue growing if moisture is available after the burrs have ripened and other cultivars have dried off (1, 2).

In Victoria, in trials over a number of years, Borung has produced more feed on the self-mulching soils of the Wimmera region during the winter than Jemalong, Hannaford, Paragosa, and Harbinger medics and its production for the whole year has been greater (2). In preliminary trials at Condobolin, it also outyielded all other commercial medic cultivars (1). In South Australia, it is reported to produce well on clay-clay-loam soils with moderate rainfall but seed and pod yield generally lower on sandy or salty soils (3).

Victoria reported that Borung produces a greater number and greater weight of pod and seed/ha than cv. Jemalong.

References

1. Cornish, P.A. (1971). Personal communication. Agric. Res. Station, Condobolin, N.S.W.
2. Hotton, G.B., Tuohey, C.L., and Wright, D.J.G. (1970). A new pasture plant for the Wimmera. *J. Agric. Vict. Dep. Agric.* **68**, 225, 228-9.
3. Mathison, M.J. (1971). Personal communication, S. Aust. Dep. Agric., Adelaide.