

Register of Australian Herbage Plant Cultivars

B. Legumes

9. Annual Medics

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

cv. Cyfield

Reg. No. B-9a-4

Registered February 1969

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Origin

This cultivar was obtained by Dr. A.J. Millington and Mr. G. Gishubl by intercrossing two Cyprus backcross lines. Cyprus barrel medic was the recurrent parent in crosses with a spineless podded strain (University of Western Australia accession No. N.2822) and a large-seeded strain (N.3310) respectively. From crosses between these backcross lines, plants were obtained which combined early flowering with large seed and the absence of spines. Further intensive selection by Fielder Kench Pty. Ltd., breeders, particularly for low coumestrol content, gave the breeders' seed for Cyfield.

Submitted for registration by Fielder Kench Pty. Ltd., Perth, WA, where authentic seed will be held. Recommended for registration by the Western Australia Herbage Plant Liaison Committee. Registered February 1969.

Morphological description

Annual herb, procumbent, branching from near the base, normally 15-30 cm high. Branches, leaflets, stipules, and peduncles with simple hairs. Stipules deeply dentate to laciniate. Leaflets 10-25 mm long, 10-20 mm wide, cuneate to elliptical, upper half or two-thirds of the margin serrate. Peduncle with 1-2 flowers, about equal to petiole, produced to a distinct cusp. Flowers 6-8 mm long. Calyx covered with simple hairs; teeth slender, exceeding tube in length. Corolla less than twice as long as calyx, standard longer than wings and keel. Young pod contracted inside calyx. Pod long cylindrical, glabrous, 6-15 mm long, hardening at maturity. Coils 3-5, clockwise or anti-clockwise, strongly adpressed; coils usually 6-12 mm in diameter. Seeds 3-6 mm long, 6-10 per pod, 1-2 in each coil, separated by a membrane; radicle less than half as long as the cotyledons. Seed coat smooth, yellow. Number of seeds/kg approximately 220 000. Chromosomes $2n = 16$.

Agronomic characters

Cyfield flowered 2-3 weeks later than Cyprus and up to one week earlier than cv. Hannaford under field conditions at Merredin, Geraldton, and Perth in Western Australia (2). At Condobolin in New South Wales, it flowers 8-10 days after Cyprus and 5 days before Jemalong (1). The large seed produces vigorous seedlings resulting in rapid early growth and good competition against germinating weeds.

Field testing at six sites in Western Australia showed no difference between Cyfield and Cyprus in top growth production. There was also no evidence to suggest any difference in rate of seed development. Seed production of Cyfield was 30% less than Cyprus in the drier cereal and sheep districts. At the higher-rainfall south-coastal sites seed production of both was similar (2). Reports of preliminary testing in South Australia (3) and at Condobolin, N.S.W. (1), show no significant differences between its yield and that of Cyprus.

The level of the hard-seededness and rate of seed softening under field conditions are much the same as for Cyprus. Pod are harder to thresh than those of other medic cultivars in a rubber-belt-type thresher (3). The coumestrol content tends to be lower than that of Cyprus.

References

1. Cornish, P.S. (1971). Personal communication. Agric. Res. Station, Condobolin, N.S.W.
2. Devitt, A.C. (1971). Personal communication. West Aust. Dep. Agric., Perth.
3. Mathison, M.J. (1971). Personal communication. S. Aust. Dep. Agric. Adelaide.