# **Register of Australian Herbage Plant Cultivars**

### **B.** Legumes

## 9. Annual Medics

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

## cv. Cyprus

Reg. No. B-9a-3

Registered prior to December 1971

 $\label{eq:published} \textit{Published in the $2^{nd}$ ed. of the Register of Australian Herbage Plant Cultivars, 1972.}$ 

#### **Origin**

Derived from a sample of seed of *Medicago truncatula* collected by J.F. Miles of CSIRO in Cyprus, during the joint FAO-CSIRO Mediterranean collecting expedition of 1950-51. The sample was recorded as C.P.I. 13914 and a portion of it made available to D. Symon of the Waite Agricultural Research Institute, Adelaide. Some seed was sent by Symon to A.J. Millington of the Institute of Agriculture, University of Western Australia, for testing in a program designed to fined more suitable legumes for the wheat belt in Western Australia. In the sward trials conducted under this program C.P.I. 13914 performed well. It was seed increased by the Institute and released into commercial use under the name Cyprus in 1959 (6).

#### **Morphological description** (3, 4, 7)

As for cv. Hannaford in general morphological characters and with about the same degree of variation. Produces 8-10 runners and 5-8 laterals per runner which may branch further once or twice. First flower at 6<sup>th</sup>-8<sup>th</sup> node in July under Western Australia conditions. Leaflets 8-15 mm long, 7-12 mm wide, cuneate or obovate; margins more frequently serrated in seedling than cv. Hannaford. A small percentage of the plants have leaflets with a small yellow blotch with a dark brown edge and the majority of plants have leaflets with a purple fleck. Pod height 7-12 mm and greater than diameter; coils 5-8 strongly adpressed, pattern of coiling clock-wise; spines thickened at their base, mostly rather short (rarely strongly reduced), straight, or very slightly curved, at 90% to surface of coils, adpressed to the pods, especially when mature.

#### **Agronomic characters**

Similar in general agronomic characters to cv. Hannaford. It flowers, however, 3-4 weeks earlier than that cultivar and 5 weeks earlier than cv. Jemalong in Western Australia (6, 7). In South Australia (3), Victoria (1), and N.S.W. (9) it is reported to flower a fortnight earlier than Hannaford, i.e. 13 weeks after emergence (9).

It makes better winter growth than Hannaford (2, 3) but its spring production is much the same (1, 3). It lacks the ability, however, to respond to rain late in the growing season after the onset of senescence as well as other barrel medic cultivars (4). Its pod and seed yields tend to be higher than Hannaford and Jemalong (1), and its capacity to set seed under adverse spring conditions is better (2, 3). It potential for hard seed production is probably higher (1, 7) but it may, because of its early maturity, regenerate well in areas with only a three-month growing season (3). It has proven satisfactory on a wide range of soils in Western Australia and is well adapted to heavy moderate-textured soils of pH 6.0-8.0 (7, 8).

It nodulates satisfactorily with *Rhizobium* strains U45 and SU47 which are contained in Australian commercial inoculant 'A'.

Its oestrogenic potency is low (6) but a substantial coumestan content has been shown to occur in the leaves and pods under certain conditions, as in cv. Hannaford (q.v.) (5).

Like other medics cv. Cyprus is subject to attack by Sitona weevil and in South Australia appears more susceptible to *Ascochyta imperfecta* (4).

#### References

- 1. Amor, R.L. (1966). Herbage and seed production of three barrel medic (*Medicago truncatula*) cultivars and harbinger medic (*Medicago littoralis*) in the Victorian Mallee. *Aust. J. Exp. Agric. Anim. Husb.* **6**, 361-4.
- 2. Argyle, D.B. (1962). Barrel medics for eastern wheat belt pastures. *J. Agric. West. Aust.* **3**(4<sup>th</sup> Ser.), 331-41.
- 3. Crawford, E.J. (1963). Early Cyprus barrel medic. J. Dep. Agric. S. Aust. 66, 228-9.
- 4. Crawford, E.J. (1971). Personal communication. S. Aust. Agric. Adelaide.
- 5. Francis, C.M., and Millington, A.J. (1971). The presence of methylated coumestans in annual *Medicago* species. Response to a fungal pathogen. *Aust. J. Agric. Res.* **22**, 75-80.
- Millington, A.J., Francis, C.M., and McKeown, N.R. (1964). Wether bioassy of annual pasture legumes. I. Oestrogenic activity in *Medicago tribuloides* Desr. var. Cyprus relative to four strains of *Trifolium subterraneum L. Aust. J. Agric. Res.* 15, 520-6.
- 7. Quinlivan, B.J. (1965). The naturalised and cultivated annual medics of Western Australia. *J*, *Agric. West. Aust.* **6**(4<sup>th</sup> Ser.), 532-43.
- 8. Robson, A.D. (1969). Soil factors affecting the distribution of annual *Medicago* Species. *J. Aust. Inst. Agric. Sci.* **35**, 154-67.
- 9. Scott, B.J., and Brownless, H. (1970). Annual medics for improved pastures in the Central Western low rainfall wheat belt. *Agric. Gaz. N.S.W.* **81**, 62-9.