

Register of Australian Herbage Plant Cultivars

B. Legumes

1. Clover

***Trifolium subterraneum* ssp. *subterraneum* (Katzn. et Morley) Zohary and Heller (sub clover) cv. Woogenellup**

Reg. No. B-1d-5

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Origin

The cultivar is believed to have originated on the property of Mr. W. Scott, Elgin, W.A. (10). Both burr and seed, supposedly the Mt. Barker cultivar, were harvested and sold from the property for some 30 years commencing in the early 1920s. By 1950 the cultivar was a common admixture in Mt. Barker pastures and it was known mainly as "Pearsons" or "White flowered midseason". It was described and named Woogenellup by Quinlivan in 1957 and 1958 (8,9).

The initial pure lining, seed increase, and subsequent promotion of the cultivar in Western Australia was undertaken by three farmers, F.M. Ford, Mt. Barker, E.A. McKelvie, Bridgetown, and H.S. Rogers, Boyup Brook, in association with B.J. Quinlivan of the Western Australian Department of Agriculture. The first certified seed was produced in 1959.

The same type was recognized on the property of Messrs A.G.C. McIntyre and Son, of Afton near Marrar and Wagga Wagga, N.S.W., in 1955. It was described under the name "Marrar" by Godden and Cuthbertson (4) in 1960 and certified in New South Wales the same year. It was certified in South Australia in 1962 as Woogenellup and in Victoria in 1964 under the name Marrar. More recently the name Woogenellup has been adopted by all States.

Comparative tests to date indicate the synonymy of these two types and that they differ from the Burnley line described by Aitken and Drake (1).

Morphological description (4,8-10,12)

Grown as single-spaced plants forms a medium number (12-18) of runners with long internodes; produces 4-5 laterals per runner and the laterals may branch once or twice. The runners are almost hairless. The leaflets tend to be large, generally lighter green than most other cultivars, and have only few to a moderate number of hairs on their upper surface. The petioles are long and only sparsely hairy. The leaflet markings: pale green central area with two faint white arms extending to the edge of the leaflet form a well-marked crescent. Anthocyanin flecking rarely found even in winter months. Stipules are usually large, green with red veins and upper half blotched with red. First flower, early mid season (early September), at 8th-9th node. Calyx tube and lobes green and without any red markings. Corolla is white or white with faint pink veins. Seedling as in Mt. Barker but hypocotyl moderately pigmented; first leaf is slightly wider than long and generally orbicular in shape, not indented and without markings; the leaflets of the first trifoliate leaf are indented and wedge-shaped (14).

Agronomic characters (4,8-10,12)

Early mid-season maturity, flowering commencing early to mid September, a week or so earlier than Mt. Barker and a few days ahead of Bacchus Marsh. Seeds mature by mid November, some 36 days after Geraldton.

It has a rather more vigorous growth habit than Mt. Barker or Bacchus Marsh, makes particularly good growth during winter and produces a good bulk of forage in comparison with other varieties of comparable maturity. Considered most suitable for areas having 500-760 mm rainfall, and a minimum growing season of seven months in the eastern States and six months in Western Australia. Reported to be extremely well suited to the appropriate rainfall zone in Western Australia (10,12), to be the best legume for autumn-winter feed on the Central Tablelands of New South Wales (13), and more productive than Mt. Barker and Bacchus Marsh in spring and more persistent than Mt. Barker in trials in Tasmania (6). It is not prolific in seed setting and normally all

burrs form above soil surface. There is a moderately high proportion of impermeable seed at maturity but a rapid softening during summer gives moderate to high levels of seed by autumn (11).

Cv. Woogenellup may not be effectively nodulated with some strains of *Rhizobium* which are successful with other clover varieties (3). It does, however, nodulate satisfactorily with strain CC2480a which is now contained in Australian commercial inoculant "C".

It has a high total oestrogen content but its formononetin content is relatively low so that its oestrogenic potency is low (2,7). It has better field resistance to clover stunt virus than Bacchus Marsh (5).

References

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