Register of Australian Herbage Plant Cultivars

B. Legumes
17. Jointvetch
Aeschynomene falcata (Poiret) DC. (jointvetch) cv. Bargoo

Reg. No. B-17a-1
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Origin

Bargoo originated from seed collected in central Paraguay by W. Hartley and J.L. Stephens and received by CSIRO as C.P.I.11500, through the Division of Exploration and Introduction of U.S.D.A. in 1948. The collection site was described as "a rocky sandstone ridge in forest country", between Caacupe and Piribebuy (1). It was tested extensively by the New South Wales Department of Agriculture in the drought-liable 900 mm annual rainfall zone of the Clarence River basin from 1955 to 1971. It proved persistent and productive during a 15-year trial period when the annual rainfall varied from 440 to 1700 mm (7). However, several establishment failures caused by defective nodulation hindered progress towards release. D.O. Norris isolated an efficient strain of rhizobium in 1970 (3,8). Submitted for registration by the New South Wales Department of Agriculture and recommended for registration by the New South Wales Herbage Plant Liaison Committee. Registered January 1973.

Morphological description (4,5,6)

A prostrate herbaceous perennial with a short, tough taproot. Slender stems branch at soil level from a bulbous woody crown. Rudd (4) describes the species as follows:

"Stem decumbent, to about 6 cm long, pubescent and sometimes also hispidulous; stipules lanceolate, acuminate, 5-8 mm long, 5-7 (-8) -foliolate, the petiole and rachis pubescent like the stem; leaflets obovate-elliptic, about 6-10 mm long, 3-4 mm wide, obtuse, mucronate, pubescent on both surfaces, the base often oblique, entire; inflorescences usually with only 1 or 2 flowers developing, longer than the subtending leaves, the peduncles and pedicels hispidulous; the bracts and bracteoles subovate, acuminate, 1-2 mm long, about 1 mm wide, pubescent; ciliolate; yellow flowers 7-9 mm long; calyx 3-4 mm long, pubescent, ciliate; standard 7-9 mm long, the claw about 1 mm long, the blade orbiculate, 6-7 mm in diameter, entire, the outer face puberulent; wings about 7 mm long, the claw 1 mm long, the blade about 6 mm long, 1.5-2 mm wide at maximum; keel 7-8 mm long, the claws 1 mm long, the blades 6-7 mm long, about 2 mm wide; stamens about 8 mm long; legume usually flacate, 6-8 articulate, the stipe 6-14, commonly 8-10 long, with spreading, glandular hairs, 1.5-2 mm long, the articles 3-4 mm long, 2.5-3.5 mm wide, puberulent with crispate or appressed hairs, sometimes also sparsely hispidulous, the body of the articles tending to break away from the margins; seeds about 2 mm long and 1.5 mm wide, dark brown."

Bargoo is distinguished from the species by seeds in the sample varying in colour from light yellowish-brown to almost black. There are approximately 375,000 seeds per kilogram.

Agronomic characters (6,7)

Bargoo is predominantly summer growing, but possesses a degree of tolerance to low temperatures and mild frosts. It is adapted to a variety of poor to moderately fertile soils, derived from sandstone, shale and granite, of the Clarence basin. It responds to superphosphate (2). It tolerates temporary waterlogging but it does not persist in permanently damp situations.

Bargoo is very palatable and is grazed selectively by cattle, sheep and marsupials. It withstands heavy grazing and will also persist in rank ungrazed pastures. It improves the quality and efficiency of utilization of carry over pasture up to mid winter. It combines well with *Axonopus affinis*, *Paspalum dilatatum*, *Paspalum notatum*, *Cynodon dactylon* and a wide range of native grasses.

Bargoo is easy to establish. Requires inoculation with a specific strain of *Rhizobium* (CB 2312) for best results. However, effective indigenous rhizobia are present in some soils (8). Flowering begins in spring and continues into autumn. Seed is usually ready to harvest in January-February and April-May. The seed pods shatter readily. It possesses a high degree of resistance to Amnemus weevil and it is

resistant to rootknot nematodes. Grafton Agricultural Research Station will maintain an authentic stock of breeder's seed of cv. Bargoo.

References

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