Register of Australian Herbage Plant Cultivars

B. Legumes
11. Serradella
b. *Ornithopus pinnatus* (Miller) Druce (slender serradella)

cv. Jebala
Reg. No. B-11b-1
Registered March 1988

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Origin

Collected on May 20, 1973, 28 km south from Tangier on the inland road to Asilah, Morocco. Latitude 35° 39'N, longitude 5° 58'W; altitude 100 m; annual rainfall 675 mm; growing on gritty brown loam, pH 6.8, on heavily grazed wasteland. Entered under the Commonwealth Plant Introduction (CPI) number 65305. Re-selected in nursery rows, on the basis of flowering time, in two sublines A and B, of which Jebala (the earlier) was A; but tested under the original collector's/selector's number GM 134.1.

Field testing of Jebala commenced at Esperance, Western Australia, in 1979 and it was included in sets of selected serradella genotypes distributed in 1981 and 1982 for testing across southern Australia (Gladstones 1984). Originated by J.S. Gladstones and M.D.A. Bolland.

Submitted by the Western Australian Department of Agriculture, which will maintain breeders' seed, and recommended for registration by the Western Australian Herbage Plant Liaison Committee. Registered March 1988.

Morphological description

O. pinnatus is a fine, more or less glabrous annual, with slender runners which are prostrate up to flowering but ascending thereafter. Stipules very small or absent. Leaves pinnate, petiolate, petioles 20-35 mm to lowest leaflets, with 3-8 leaflet pairs on a narrow rachis; leaflets narrow-obovate, mucronulate. Peduncles 50-80 mm, slender, about equal in length to the subtending leaves. Inflorescence with 2-5 flowers, ebracteate or with minute shrivelled bracteoles; calyx teeth one quarter or less the length of the tube; corolla 6-8 mm, full golden yellow. Pods in clusters 2-4 (-5), 25-35 mm long, thin-cylindrical, smooth, curved; comprising 8-12 single-seeded cylindrical segments, not constricted between segments; segments separating after maturity with varying difficulty; pod terminated by a beak of not more than 5 mm. Seeds very small, oblong, yellowish.

Jebala is typical of the species, apart from its usually early flowering. The mature segments separate only with considerable difficulty. Dehulled seeds approximately 1 200 000/kg.

Agronomic characters

Jebala flowers at about 118 days at Perth, Western Australia with early May sowing, i.e. about 3 days after *O. compressus* cv. Tauro and 10 days earlier than *O. compressus* cv. Pitman. If flowers at least 10 days earlier than any other strain of *O. pinnatus* previously introduced and examined in Australia, and some 15 days earlier than the strain naturalised around Albany, Western Australia, when grown under Perth conditions. In south-eastern Queensland it flowers 20 days earlier than the strain naturalised at high altitude in the Granite Belt (Lloyd 1987). It is highly hard-seeded (Bolland 1985).

In its natural western Mediterranean/western European habitat, *O. pinnatus* grows commonly on acid, infertile soils too poor even for *O. compressus* (Gladstones 1976).

Persistence for 10 years or more under grazing by kangaroos without fertiliser, on old experimental sites at Esperance, Western Australia, has further indicated its tolerance of low soil fertility.

Observation has shown that Jebala is much more tolerant of winter waterlogging than *O. compressus*, both in New South Wales (Drew 1987) and on the Esperance Plain in Western Australia (Bolland and Gladstones 1987; P.S. Terrell upubl. farmer observation). Francis and Devitt (1969)

found *O. pinnatus* to have good tolerance of waterlogging, though less so than *Trifolium subterraneum* var. *yanninicum.* Naturalised *O. pinnatus* grows commonly around the fringes of freshwater swamps in the Harvey area of Western Australia (Caroline Peek, unpub. observations).

Jebala slender serradella should find a useful, though perhaps specialised, place in high-rainfall areas of southern Australia on soils that are highly acid and/or subject to waterlogging – especially in the Granite Belt of south-east Queensland and adjacent New South Wales (Lloyd 1987) and on variably winter-wet soils in south-coastal and southern west-coastal areas of Western Australia. Its main use will probably be for sowing in admixture with *O. compressus* and/or *Trifolium subterrraneum* var. *yanninicum*

Acknowledgments

Jebala was tested as part of an interstate collaborative testing scheme for serradellas. The main field trials in Western Australia were conducted by M.D.A. Bolland (Esperance) and L. Cransberg (Albany); in South Australia by A.D. Craig (Kybybolite); in Victoria by L.J. Hamilton (Bairnsdale) and S. G. Clarke (Hamilton); in New South Wales by R.D. Freebairn (Coonabarabran) and T.P. Drew (Trangie); and in Queensland by D.L. Lloyd (Toowoomba).

Initial pure seed production was by T.O. Albertsen and J.S. Gladstones (Western Australian Department of Agriculture).

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