

Register of Australian Herbage Plant Cultivars

B. Legumes

1. Clover

Trifolium hirtum All. (rose clover) cv. Kondinin

Reg. No. B-1e-1

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Origin

Derived from a single early-flowering plant selected by E.T Bailey of CSIRO, in 1956, from a field sowing of American commercial rose clover on the property of Mr. W.H. Biglin at Kondinin, W.A. (1,4). The selection performed well in spaced plant trials at various locations in 1957 and 1958. Initial seed multiplication and grazing trials were done by Mr. R. Clarke at Lake Grace during 1959-61; subsequently, seed stocks were increased by the Lake Grace Pastures Improvement Group (1,4). First certified by the Western Australian Department of Agriculture in 1965,

Morphological description (2,4)

Herbaceous annual with freely branching stems; semi-erect habit when grown as spaced plants, 8-46 cm high; densely hairy. Leaves, except the uppermost pair on each stem, alternate. Leaflets cuneate-obovate or wedge-shaped with rounded tops, approximately 1.8 cm × 1.2 cm, hairy on both upper and lower surfaces, often with a pale, complete or interrupted, crescent surmounted by a dark line well above the centre. Petioles densely hairy, as long as to twice as long as the leaflets. Stipules narrow, the free portions membranous, ovate to lanceolate, terminating in a fine hair or bristle tip. Inflorescence a globular terminal head, about 29 mm diameter, with numerous (20-40) sessile flowers, sheathed at the base by the uppermost pair of opposite leaves which are usually reduced to dilated stipules. Calyx 20-nerved, very hairy, with equal bristle-like teeth twice as long as the tube. Corolla light to deep pink, twice as long as calyx. Pod small, ovoid, membranous, straw-coloured, usually single-seeded, held in calyx. Seeds smooth, cream or light straw to buff in colour, broad ovoid, slightly compressed, with small lateral notch at radicle end, approximately 2 mm long and about 308,000 per kg.

Compared with the average of the species, cv. Kondinin has a less prostrate growth habit when grown as spaced plants, fairly long internodes, large leaflets and long petioles, more rounded leaflets, and the leaf marking described above.

Agronomic characters (1-4,6,7)

Winter-growing and adapted to a Mediterranean-type climate with an annual rainfall of 330-457 mm of high winter incidence; and a growing season of 3.5 – 5.5 months. Slow-growing in autumn and winter but makes rapid growth in spring. Flowers about same time as Mt. Barker sub clover in late September or early October over a fairly wide range of environment, and seed matures about 4-5 weeks after flowering. It is usually self-fertile but out-crossing occurs. Seed set is generally satisfactory; a high percentage of seed is hard at maturity but normally 50% of seed on the ground has softened by autumn.

This cultivar nodulates satisfactorily with *Rhizobium* strains WU290 and CC2480a which are contained in Australian commercial inoculant "C" distributed in the eastern States. Commercial inoculant "C" distributed in Western Australia contains at present (Nov. 1971) WU95 instead of CC2480-a; and WU95 is of doubtful value for this species (5).

Cv. Kondinin has shown little soil preference but, like rose clovers generally, appears able to grow on soils of low fertility, too acid or otherwise unsuitable for barrel medic. It is palatable and contains no significant amount of oestrogenic substances (8).

It has compared favourably in dry matter production with Dwalganup and Geraldton sub clovers and Cyprus barrel medic. In a series of trials in the wheat belt of Western Australia in 1964 and 1965, it gave higher total average yields when ungrazed than Geraldton or Cyprus on both heavy and light

soils in the 380-400 mm rainfall zone and on light soils in the 280-356 mm zone (1). Under a frequent cutting regime in 356 mm rainfall area it yielded much better than Geraldton and Cyprus on both heavy and light soils (3).

References

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