

Register of Australian Herbage Plant Cultivars

B. Legumes

1. Clover

Trifolium repens L. (white clover) cv. Ladino

Reg. No. B-1a-3

Registered prior to December 1971

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Origin

Originated as a natural ecotype in the Lodi-Cremona district near Milan in the valley of the Po River, Northern Italy. Has been called Giant, Lodi, and Mammoth White Clover but is correctly named Ladino Gigante Lodigiano (8). Was described in 1847 as *Trifolium repens* f. *giganteum* Largr.-Foss. (9,22), and as *T. repens* var. *latum* in 1894 (14). Neither of these names is preferred. Breakwell (3) reports the trial of Ladino at the Glen Innes Experiment Farm in N.S.W. prior to 1923, and Audas its presence in Victoria prior to 1921 (2). Certified by New South Wales Department of Agriculture in 1963-64.

Ladino is widely used in the U.S.A. where regionally adapted ecotypes of the original material from Italy have arisen and several distinct varieties, e.g. Pilgrim and Merit, have been developed from them. Because there has no doubt been crossing between the regionally adapted lines of Ladino and naturalized lines of common white clover (12,18), these new cultivars are probably reselections from outcrossed lines (19).

There is evidence that comparable regional adaptation of the Ladino type and its outcrossing with common white clover have also occurred in "Ladino certified" in Australia. Though hollow stems and large stolons are characteristic, the grain form of the leaf is often totally absent and there is no consistency of leaf marking either within or between lines (19).

The following morphological description is of the true Ladino type.

Morphological description (1,9-11)

In Ladino all vegetative parts are larger than in other registered varieties. The stolons are very thick and fleshy; they have long internodes and root very readily at the nodes. The leaves are extremely large and the petioles long. The number of vascular bundles in the petiole is 6.7-8.7 compared with 5.0-5.3 in intermediate types like Grasslands Huia, and the petioles are usually hollow (6,7). Growth habit is tall, erect, lax, and open in comparison with cv. Grasslands Huia or Irrigation. It has a lower leaf to stem ratio than cv. Grasslands Huia and does not produce such a dense sward (16). Cyanophoric number low (9). Number of seeds per kg approx. 1.54-1.65 million.

Agronomic characters

Reported to give higher production under natural rainfall than Grasslands Huia for the first year in Tasmania (5) and in Victoria (4). Under these conditions, however, it is more affected by drought than Grasslands Huia or Irrigation and less persistent under grazing so that the stands thin out rapidly (4,5). It flowers about one week later than Grasslands Huia; nodulation requirements same as Grasslands Huia.

Under irrigation in warmer and drier areas and under long-day summers it produces as well as or better than Grasslands Huia and Irrigation in the summer and much the same as these varieties during the other seasons (13,20,21); it is not, however, persistent under close grazing (20).

It is better adapted to short-day warm summers than Grasslands Huia or Irrigation and appears better suited to northern New South Wales and south-east Queensland under irrigation (17). Under short-day summer conditions it makes good growth but flowering and seed setting are sparse; the sward is maintained rather by the development of new plants from stolons than by seed (15). Thus it is not as well adapted to short-day summers as cv. Louisiana (15).

Differences in agronomic performance may be expected in material derived from different climatic environments (19).

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