Register of Australian Herbage Plant Cultivars

B. Legumes

5. Leucaena *a. Leucaena leucocephala* (Lam.) De Wit (leucaena)

cv. El Salvador

Reg. No. B-5a-2 Registered prior to December 1971

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Origin (1, 4)

Introduced from the University of Hawaii by CSIRO in 1954, under the name El Salvador Ekoa and given the number C.P.I 18623. It was included with 38 other *Leucaena* accessions in nursery trial at Samford, Qld., from 1955-1958 (1, 4). It has been used in many experimental plantings at other centres in Queensland and was released by the Queensland Pasture Liaison Committee for commercial use in 1962. Because of its inferior agronomic characters compared with cv. Peru, it has not been widely used.

Morphological description (1, 4)

This cultivar produces an erect tall plant with very little basal branching and, under good conditions at Samford, Qld., may attain a height of 3.7 m during the season but without much lateral spread. It has a strong tendency to grow rapidly beyond the reach of grazing cattle unless cut back. Regrowth after grazing or cutting also tends to grow erect and be sparsely branched. Leaves are larger than those of the Hawaiian type, while heads, pods, and seeds resemble those of that commercial line. Stem tips and young pods may be either glabrous or pubescent. Number of seeds/kg approximately 26 500.

Agronomic characters

Region of adaptation similar to cv. Peru (4) but dry matter and protein yields are less (3, 6). In a cutting trial at Samford in 1958-59, cv. El Salvador yielded 6557 kg of edible dry matter/ha with a protein yield of 1918 kg/ha (3). Maximum growth rate (10-11 kg dry matter/ha per day) is also less than Peru (6).

El Salvador flowers late mid season, a little earlier than Peru with a peak in February at Samford (1, 3). Seed production is reported to be higher than Peru in Queensland (1, 3) but no better than that cultivar near Darwin (6). It has similar specific rhizobial requirements to cv. Peru (5, 7). Contrary to previous reports, there is no significant difference in mimosine content as compared with other cultivars (2). Disadvantages of this variety for grazing are its tall erect growth and paucity of branching in the lower part of the plant (1).

References

- 1. Gray, S.G. (1966). Personal communication. CSIRO Div. Trop. Pastures, Brisbane.
- 2. Hegarty, M.P., Court, R.D., and Thorne, Peggy M. (1964). The determination of mimosine and 3, 4-dihydroxypyridine in biological material. *Aust. J. Agric. Res.* **15**, 168-79.
- 3. Hutton, E.M., and Bonner, L.A. (1960). Dry matter and protein yield in four strains of *Leucaena glauca* Benth. J. Aust. Inst. Agric. Sci. 26, 276-7.
- 4. Hutton, E.M., and Gray, S.G. (1959). Problems in adapting *Leucaena glauca* as a forage crop for the Australian tropics. *Emp. J. Exp. Agric.* 27, 187-96.
- 5. Norris, D.O. (1966). Personal communication. CSIRO Div. Trop. Pastures, Brisbane.
- 6. Sturtz, J.D. (1966). Personal communication. Agric. Branch, N.T. Admin., Darwin.
- 7. Trinick, M.J. (1968). Nodulation of tropical legumes. 1. Specificity in the *Rhizobium* symbiosis of *Leucaena leucocephala*. *Exp. Agric.* **4**, 243-54.