Register of Australian Herbage Plant Cultivars

B. Legumes
1. Clover
Trifolium repens L. (white clover) cv. Louisiana S1

Reg. No. B-1a-4
Registered prior to December 1971

Published in the 2nd ed. of the Register of Australian Herbage Plant Cultivars 1972.

Origin

Bred from the ecotype Louisiana and registered in the U.S.A. The U.S.A. registration describes its origin as follows: "Louisiana S1 is a synthetic variety of the intermediate type developed by C.R. Owen of the Louisiana Agricultural Experiment Station. It originated in 1950 by intercrossing 5 evaluated (1946-48) clones, Louisiana 6, 15, 21, 23, and 26, that were selected from the naturalized strain Louisiana White." Selection was directed towards greater heat and drought tolerance. Breeder's seed from clonal plantings is maintained by the Louisiana Agricultural Experiment Station and foundation (basic) seed is produced under its direction.

Morphological description (2 et al.)

In Louisiana S1. the stolons are coarser and the leaves larger than in cv. Grasslands Huia or Irrigation but not quite as coarse or as large as in Ladino. It tends to be more erect than Grasslands Huia, is not quite as stoloniferous, and does not make quite so dense a plant. In all other morphological details, similar to cv. Grasslands Huia.

Agronomic characters

Described in the U.S.A. registration (1) as being higher-yielding and more persistent during the summer months than the parent strain Louisiana White.

In Louisiana, reported to produce more forage from late autumn to late spring than either Ladino or common Louisiana White in both the first and second years from seeding. Under these conditions it is less productive than Ladino during summer. It does, however, survive the summer better than common Louisiana White, and, as well as producing seed in most years, revives from stolons in late autumn. It thus lasts longer into the summer and revives earlier in autumn than the common Louisiana White (4).

In Australia, under conditions of mild winter temperatures and short-day summers it makes rapid early growth, flowers early, and gives greater winter production than Grasslands Huia, Irrigation, or Ladino (5,6). It is, however, less productive in high summer temperatures than Ladino (5,6). It produces viable seed over most of the year (6) though it does not flower as freely as the unselected Louisiana (2).

It is well suited to the mild winter and humid summer conditions such as obtain on the northern coast of New South Wales and south Queensland (6). It is, however, less productive and less perennial and persistent than cv. Haifa in the 1000-mm rainfall areas of northern New South Wales on coarse-textured soils (3).

Cv. Louisiana S1. can withstand periods of summer drought without loss of stand (5), and is also well adapted to drier areas such as the Lockyer valley in south-east Queensland if grown under irrigation (2,5). Nodulation requirements the same as Grasslands Huia.

References

1. Hollowell, E.A. (1958). Registration of varieties and strains of white clover (*Trifolium repens*). Louisiana S1(Reg. No. 1). *Agron. J*. **50**, 692.
2. Miles, L.G. (1966). Personal communication. Qld. Dep. Primary Ind., Brisbane.
3. O'Brien, A.D. (1970). Evaluating white clover varieties for the Clarence River Beef Country. *Trop. Grassl*. **4**, 63-9.
4. Owen, C.R. (1953). Louisiana S1. White clover. Louisiana Agric. Exp. Stn Bull. No. 479.
5. Ryan, F.E. (1966). Personal communication. West. Aust. Dep. Agric., Perth.
6. Schroder, C.A. (1963). Louisiana white clover. *Qd. Agric. J*. **89**, 15-16.