

Register of Australian Herbage Plant Cultivars

B. Legumes

12. Stylo

d. *Stylosanthes scabra* Vog. (shrubby stylo)

cv. Fitzroy

Reg. No. B-12d-2

Registered January 1980

Published in the Journal of the Australian Institute of Agricultural Science 46(2): 139-40 1980.

Origin (2).

Fitzroy is derived from material collected, as CPI 40205, by R.J. Williams, Division of Tropical Crops and Pastures, CSIRO, in 1965 from Cruz Das Almas, Bahia, in eastern Brazil (lat. 12°S., alt. 36m).

Widely tested along with Seca in the period 1967-75 and proposed for release at that stage, but it was withdrawn when it was realised that it was susceptible to type A anthracnose caused by the fungus *Colletotrichum gloeosporioides* Penz. & Sacc. Further testing, however, has revealed that Fitzroy is only severely damaged by anthracnose in higher rainfall areas and that it can still be a valuable pasture plant in drier districts (2).

Submitted jointly by the Queensland Department of Primary Industries and Davies Laboratory, Division of Tropical Crops and Pastures, CSIRO, Townsville, and recommended for registration by the Queensland Herbage Plant Liaison Committee. Breeders' seed will be maintained by the Queensland Department of Primary Industries. Registered, January 1980.

Morphological description (1, 3)

A vigorous, shrubby, pasture legume that perennates strongly and can grow 1.5-2 m tall, Fitzroy is strongly erect, ascending, tall and robust. It is a denser bush than Seca with more stems and leaves. Fitzroy has pale green stems and leaves compared with the reddish stems and darker blue-green leaves of Seca. The stems are markedly reflexed with dense, very viscid bristles on the top three-quarters of the internode which are denser and more widespread than those of Seca. Leaflets have a length to breadth ratio of 2.7 compared with 2.2-2.3 for Seca.

The chromosome number is $2n = 40$. Seed number/kg is 425 000 for seeds in pods and 630 000 without pods.

Agronomic characters (1-9)

Fitzroy is representative of Morphological-Agronomic Group 17 of the *Stylosanthes* collection classification (1, 3).

Fitzroy is a vigorous, more leafy plant than Seca, but it is susceptible to attack by anthracnose (6). This, however, appears only to be a serious defect in high rainfall districts, possibly those with more than 1000 mm annual rainfall in Central Queensland. In drier districts anthracnose symptoms sometimes occur on the leaves but no serious effects on swards have been noted (2). In 1979 Fitzroy was not seriously damaged by anthracnose south of 22°S. lat. and West of 750 mm isohyet north of that latitude (9).

Fitzroy flowers somewhat earlier and has better cold tolerance than Seca. Seca flowers too late to set seed in most Central and Southern Queensland localities. Fitzroy, on the other hand, gives reasonable seed yields at Rockhampton and Gayndah. It can thus provide seed to increase the density of sparsely established stands and to replace plants lost by normal wastage. Hence it can maintain itself in pastures. Fitzroy is not cut by early light frosts but is damaged without being killed by heavier frosts in Central Queensland and the Burnett. Seca will also withstand these frosts, but to a lesser extent. These characteristics enable Fitzroy to perform better than Seca in districts with a shorter growing season (4).

Fitzroy, like Seca, has moderate fire resistance.

Hard seed levels can be high in freshly harvested samples. In the field, these decline rapidly, but heat treatment of a portion of the sample is desirable before sowing (7, 8).

References

1. Burt, R.L., Edye, L.A., Williams, W.T., Grof, B., and Nicholson, C.H.L. (1971). Numerical analysis of variation patterns in the genus *Stylosanthes* as an aid to plant introduction and assessment. *Aust. J. Agric. Res.* **22**, 737.
2. Cameron, D.G. (1978). A qualitative summary of the performance of *Stylosanthes* spp. in experimental and observational plantings in Queensland since 1971. Qld. Dep. Prim. Ind., Agric. Br. Proj. Rep. P-30-78.
3. Edye, L.A., Burt, R.L., Nicholson, C.H.L., Williams, R.J., and Williams, W.T. (1974). Classification of the *Stylosanthes* collection 1928-69. Div. Trop. Agron., CSIRO, Tech. Pap. No. 15.
4. Edye, L.A., Williams, W.T., Anning, P., Holm, A.McR., Miller, C.P., Page, M.C., and Winter, W.H. (1975). Sward tests of some Morphological-Agronomic Groups of *Stylosanthes* accessions in dry tropic environments. *Aust. J. Agric. Res.* **26**, 481.
5. Edye, L.A., Field, J.B., Bishop, H.G., Hall, R.L., Prinsen, J.H., and Walker, B. (1976). Comparison of some *Stylosanthes* species at three sites in central Queensland. *Aust. J. Exp. Agric. Anim. Husb.* **16**, 715.
6. Erwin, J.A.G., and Cameron, D.F. (1978). Two diseases in *Stylosanthes* spp. caused by *Colletotrichum gloeosporioides* in Australia and pathogenic specialisation within one of the causal organisms. *Aust. J. Agric. Res.* **29**, 305.