

Register of Australian Herbage Plant Cultivars

A. Grasses

2. Ryegrass

Lolium perenne L. (perennial ryegrass) cv. Grasslands Nui

Reg. No. A-2a-9

Registered February 1982

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Origin (1,2,4)

Bred by the Grasslands Division of the DSIR, New Zealand, from an initial collection of an ecotype brought to the notice of the DSIR by Mr. Ellett of Mangere, Auckland, in the late 1950's. The ecotype had developed in his and surrounding farms in the Mangere area, one of the dryer and warmer dairying districts of New Zealand.

Tiller samples taken from 1000 plants at random from a 40-year old pasture were evaluated as single, spaced plants for productivity and resistance to rust (*Puccinia coronata* Corda). Nine genotypes were selected and intercrossed in 1964 as the basis of a synthetic variety.

Breeders' seed issued by DSIR and first certified by the New Zealand Ministry of Agriculture and Fisheries in 1975. Recommended for registration in Australia by the Tasmania Herbage Plant Liaison Committee, with approval of the Grasslands Division, DSIR. Registered in February 1982.

Morphological Description (1,2,6)

Semi-erect, leafy, many-tillered, similar to Grassland Ruanui but slightly darker green, broader leaved and more open. Tillers rather thick, flattened and bright red at the base. Seeds 450,000 to 625,000/kg; 0.5 – 1.1% of seedlings have radicles that fluoresce under ultra-violet light.

Agronomic characters

Early flowering, similar to Grasslands Ruanui, with high seed yields in New Zealand (1). In New Zealand, best adapted to soils of medium to high fertility, with spring, summer and autumn production generally greater than that of other New Zealand ryegrass cultivars. (2,7,8,10). Winter production as high as Grasslands Ariki and responds vigorously to moisture after dry periods in autumn (1,9). Withstands heavy grazing pressure during dry periods well (1,2,4). Establishment easy and rapid, frequent grazing being required during establishment in New Zealand to allow adequate growth of associated legumes. (1).

Preliminary trials in Tasmania (6) have shown this cultivar to be more persistent than Tasmanian No. 1 in the higher rainfall region (1300mm) and under irrigation and as persistent as Victorian in areas with less than 590mm rainfall. In some trials, Grasslands Nui gave greater dry matter production than Tasmanian No. 1, Tasdale and Victorian, especially in summer and autumn. In New Zealand it is tolerant of cold conditions and more resistant than Grasslands Ruanui to crown rust (1,3). In Tasmania it is somewhat less rust resistant than Tasmanian No.1, being similar to Ruanui in this respect (6). Grassland Nui has proven to be much more resistant to rust than Ruanui in Victoria, where it is highly productive in summer and autumn, given high rainfall, but it is less drought tolerant than Victorian (5). In New South Wales Grasslands Nui has performed well only in its first year and only with high fertility. It is less drought hardy than Kangaroo Valley (11).

References

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