

Register of Australian Herbage Plant Cultivars

A. Grasses

2. Ryegrass

Lolium multiflorum Lam. (Italian ryegrass) cv. Paroa

Reg. No. A-2b-1

Registered prior to December 1971

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Origin

This line, known as New Zealand Italian ryegrass (4) prior to 1964, was developed by the Grasslands Division of D.S.I.R., New Zealand, by selection from material imported from Europe about 1934 (5). Selection aimed at increased production and recovery during the second season from sowing. It was released by the Grasslands Division and certified by the New Zealand Department of Agriculture in 1941. Its uniformity and distinctness are preserved by the continuous supply of nucleus stock seed into the certification scheme by the Grasslands Division (2).

Morphological description

There are no satisfactory visual morphological characters which may be used to distinguish the various cultivars of *Lolium multiflorum*. Vegetative characters are also not very different from those of *Lolium perenne* (vide *L. perenne* cv. Grasslands Ruanui). Cv. Grasslands Paroa has broader leaves which tend to be paler green in colour; the young leaf is always rolled, not folded; and the lemma is awned. It also tends to be more erect and less dense than perennial ryegrass (1). It is more leafy and densely tillered than Aberystwyth S.22 (7). There are approximately 463,000 seeds per kg.

Agronomic characters

Adapted to high, evenly distributed rainfall (700 mm or more) and soils of high fertility in temperate environments. New Zealand experience is that Grasslands Paroa has greater persistence than unselected *Lolium multiflorum* and is biennial rather than annual. Trials at Palmerston North and Lincoln in New Zealand showed that in the second winter after sowing some 50-55% of plants of cv Grasslands Paroa were still alive and producing whilst only 4% of a "commercial" line were still extant (3). It is later flowering than cvv. Grasslands Ruanui and Victorian.

In Tasmania it establishes rapidly and is more productive than perennial ryegrass during the first winter and spring from sowing (6); it often fails to survive the second autumn. It is very palatable and particularly valuable for winter green-feed and temporary pastures (6). It is the most productive cultivar of Italian ryegrass at present available (8).

In Victoria it requires an annual rainfall of at least 630 mm; in lower rainfall areas it is likely to die out the first summer. It establishes easily and quickly and its winter production in the year of sowing may be twice that of perennial ryegrass. It requires high soil fertility and responds well to nitrogenous fertilizers (1).

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