

Register of Australian Herbage Plant Cultivars

A. Grasses

5. Timothy

Phleum pratense L. (Timothy) cv. Grasslands Kahu

Reg. No. A-5a-1

Registered prior to December 1971

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Origin

Prior to 1964 known as New Zealand Certified Timothy (4). Bred by the Grasslands Division, D.S.I.R., at Palmerston North, New Zealand, from a line of Aberystwyth S.48 seed imported by the Canterbury Agricultural College at Lincoln in 1939 from Aberystwyth (2, 5). S.48 was a late-flowering cultivar bred at the Welsh Plant Breeding Station, Aberystwyth, and claimed (6) to yield well and persist under grazing, to be more winter green and profusely tillering than ordinary timothy and to be highly resistant to rust. It proved superior in trials in New Zealand (3) to other strains in leafiness, productivity, and persistence. The Department of Agriculture certified New Zealand-grown seed of this line in 1945 (2, 3, 5).

Selection from this material by the Grasslands Division at Palmerston North resulted in the production of a local pedigree line better adapted to New Zealand conditions. This was released for commercial multiplication in 1949-50, and gradually replaced the then certified material. Purity and quality are maintained by nucleus stock seed supplied by the Grasslands Division to the certification scheme (5).

Morphological description

Densely tufted perennial. Stems erect; basal internodes short, usually swollen or bulbous. Leaves glabrous, flat, narrowed to a fine point, rolled in bud; sheaths smooth, rounded on back, the basal ones becoming brown or chocolate coloured; auricles absent; ligule blunt, white, membranous, hairless, and usually longer than broad. Inflorescence a spike-like panicle, dense, long, and cylindrical, greyish green to purple. Spikelets one-flowered; outer glumes 2, equal, persistent, truncate, membranous, minutely rough on edge, 3-nerved and keels fringed with stiff white hairs and terminating in a short rough awn; lemma 2/3 to 3/4 length of glume, broad and blunt, 5-7-nerved, membranous, and minutely hairy. Seed: the caryopsis is pale yellow-brown, small, ovoid, about 1.5 mm long, and separates easily from the lemma and palea; about 2.5 million per kg.

Agronomic characters

Grasslands Kahu is a highly tillering and persistent variety of timothy adapted to high rainfall, cool temperate conditions, and fertile soils. It is resistant to cold and highly palatable to stock (2, 3).

It is reported (3) to have given double the yield of imported American timothy grass over a period of 3 years at Palmerston North, and to have been more persistent under these conditions. Under English conditions it is regarded (1) as medium in time of maturity, making very good early spring and autumn growth, being moderately persistent and giving average hay yields.

In Tasmania it makes most growth during spring and is more productive than Aberystwyth S.50 during autumn and spring (8). Summer production is variable and falls sharply with the onset of hot dry weather after only a short growing season (7, 8). It is usually not as productive or as competitive as many ryegrass and cocksfoot cultivars and would seem to have most application in the early stages of pasture development on wet acid soils under high rainfall (8).

References

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