

Register of Australian Herbage Plant Cultivars

A. Grasses

1. Cocksfoot

Dactylis glomerata L.(cocksfoot) cv. Grasslands Apanui

Reg. No. A-1a-1

Registered prior to December 1971

Published in 2nd Edition of Register of Australian Herbage Plant Cultivars 1972

Origin

Known as New Zealand Cocksfoot prior to 1964 (Corkhill 1964), this cultivar was developed by the Grasslands Division of D.S.I.R., New Zealand, at Palmerston North, by selection from New Zealand C.23 which was originally brought out in 1938 as an improvement on Akaroa (Corkhill 1954). It was first released in 1953 and has been compared with C.23 and Akaroa by Corkill (1954).

Trueness to type is maintained by a pedigree system of seed certification. Selected seed produced by the Grasslands Division of D.S.I.R. is grown under contract to the Department of Agriculture to produce breeder's seed. This seed is distributed by the Department of Agriculture to selected seed producers who raise basic seed, which is marketed through commercial channels and used to produce certified seed (Claridge 1958). Certified by Tasmanian Department of Agriculture in 1964.

Morphological description

Grasslands Apanui is a densely tufted glabrous perennial with strongly flattened vegetative shoots. Culms are erect, 60-90 cm, 3-noded and rough to the feel. Leaves light green; sheaths keeled, at first entire, rough but hairless; ligules membranous, about 5-8 mm long, torn at tip; auricles absent; blades folded in bud, later flat, and with strong midrib, medium wide and rough. Panicles one-sided, erect, oblong to ovate, upper branches short, close together and erect; the lower one or two longer, more distant and spreading, and rough, rarely almost smooth. Spikelets are in dense one-sided clusters at the ends of the branches, compressed, oblong or wedge-shaped, 5-9 mm long, almost stalkless, 2-5 flowered, breaking above the glumes; glumes nearly equal, lanceolate to ovate, strongly keeled, finely pointed, membranous, 1-3-nerved, usually hairy on the keel, persistent; lemmas closely overlapping, exceeding the glumes, lanceolate to oblong, tipped with a rigid awn up to 1.5 mm (rarely more) long, firm except for the membranous margins, 5-nerved, keel ciliate; palea shorter or as long as lemma, the two keels ciliate. "Seed" - the lemma, palea, and rachilla fall with the caryopsis and constitute the seed, which is about 5 mm long, curved and with awn to 1.5 mm and straw-coloured; rachilla cylindrical to 1.25 mm; caryopsis tightly enclosed in, but not adherent to lemma or palea, oblong with pointed ends, outer side very convex, inner flat or concave and almost triangular in section, honey-coloured but darker at ends.

There are no morphological features which may be used satisfactorily to distinguish the various cultivars of *Dactylis glomerata*. However, compared with other cultivars of the species, Grasslands Apanui is a densely tillered and succulent type with erect, light green foliage. It is rather prostrate in vegetative condition and the basal tiller leaves tend to be very long in spaced plants. Number of seeds averages 990,000-1,100,000 per kg.

Agronomic characters

Cv. Grasslands Apanui has the major agronomic characteristics of the north European-type cocksfoots in that it tends to have a very little summer dormancy. It requires a well distributed rainfall of more than 635 mm in areas where summer conditions are relatively mild and is best adapted to high-fertility soils.

In Britain it is regarded as a very leafy, mid-season, pasture-hay type, flowering a little earlier than S.26, being more productive than S.26, and, compared with most north European cultivars, giving very good yields in late autumn and early winter (Anon. 1962).

In Australia it has good seedling vigour and establishes more readily than S.26 and S.143 but not quite so easily as Currie and Brignoles (Martin 1970). It exhibits very little winter dormancy, being similar to Currie in this regard (Knight 1968); it heads later than Currie (Knight 1968).

In Tasmania it is reported to make winter and early spring growth similar to Cressy and better than S.26 and S.143; autumn yields are equal to Cressy and Currie; whilst summer yields under good rainfall conditions tend to be better than Currie but not as high as Brignoles or the Aberystwyth cultivars (Martin 1970). It is also

reported to be slightly more productive than the Aberystwyth cultivars during winter and early spring in Victoria (Cade 1970) and at Canberra (Broue 1965). In the Adelaide area of South Australia it has given the best all round yields of herbage under irrigation but under dry-land conditions summer survival is low (Knight 1968).

References

- Anon. (1962). "Dunns Guide to Farm Grasses." pp.1-99. (Dunns Farm Seeds Ltd., Salisbury, England.)
- Broue, P. (1965). Seasonal production in lines of cocksfoot (*Dactylis glomerata*) at Canberra, A.C.T. *Australian Journal of Experimental Agriculture and Animal Husbandry* **5**, 34-9.
- Cade, J.W. (1970). Cocksfoot in Victoria. *Journal of Agriculture Victorian Department of Agriculture* **68**, 76-8.
- Claridge, J.H. (1958). Seed production in New Zealand - grassland clover seed certification. *New Zealand Journal of Agriculture* **97**, 7-16.
- Corkill, L. (1954). A new improved strain of cocksfoot. *New Zealand Journal of Agriculture* **89**, 481-2.
- Corkill, L. (1964). Maori names given to pasture plants bred by Grasslands Division. . *New Zealand Journal of Agriculture* **109**, 138.
- Knight, R. (1968). The seasonal growth rhythm of some cultivars of cocksfoot (*Dactylis glomerata*). *Australian Journal of Experimental Agriculture and Animal Husbandry* **8**, 309-16.
- Martin, G.J. (1970). Grasses for improved pastures. *Tasmanian. Journal of Agriculture* **41**, 10-14.