

Register of Australian Herbage Plant Cultivars

A. Grasses

1. Cocksfoot

Dactylis glomerata L. (cocksfoot) cv. Porto

Reg. No. A-1a-9

Registered July 1972

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Origin

Derived from seed introduced into Australia in 1955 by CSIRO and obtained through the Institute de Botanica, Porto, Portugal. The cultivar is named Porto after the location in northern Portugal from which the collection was made. The original collection was designated CPI 19654 and distributed to CSIRO nurseries in Canberra and Perth for testing in 1955. Seed, once reproduced in Canberra, was supplied to the Tasmanian Department of Agriculture in 1957. In Tasmania the line showed early promise in preliminary trials with spaced plants and small swards sown with first and second multiplication seed, respectively. A random collection of 208 plants was made from two-year old swards at Elliot Research Farm in 1965. These were transferred to Cressey as the parental source for all seed production for further testing and multiplication purposes. Subsequent district field trials and trials conducted with several generations of seed has established that this introduction is an agronomically superior, distinct and stable cultivar under Tasmanian conditions.

The original collection was made on a farm in Porto. The parent plants were growing on granitic soils in association with herbage species *Agrostis alba*, *Poa annua* and *Trifolium repens*, at latitude 41°N, altitude 80m, annual rainfall 1550mm with winter predominance, mean monthly temperature in January 9°C and in August 20°C. Submitted for registration by the Tasmanian Department of Agriculture and recommended by the Tasmanian Herbage Plant Liaison Committee. Breeders' seed is maintained by the Tasmanian Department of Agriculture. Registered in July 1972.

Morphological description

A Mediterranean or *hispanica* type with flat, bluish-green, medium width leaves and a rather erect habit. Plants are generally well tillered and compact and, for this type of cocksfoot, display a relatively high leaf/stem ratio at ear emergence. It is late maturing and grows actively in both summer and winter. Although morphologically distinct from north-European type cultivars it is similar in many agronomic characteristics e.g tiller number and density, leafiness, leaf damage in winter and general pattern of production. In many respects it can be regarded as an intermediate between Mediterranean and north-European types.

Agronomic characters

The seedling vigour of Porto has been found to be significantly better than that of cultivars Cressey, Grasslands Apanui and Currie with dry matter production often two to three times as great during the establishment phase

Comparisons with these commercial cultivars have been made in grazed swards over 3-4 years at several sites ranging over 406-1118mm in mean annual rainfall. In these experiments cv. Porto was generally more productive in all seasons of the year with the most consistent and greatest relative increase occurring in autumn and winter. Because of its vigour and good summer production potential it is able to perform relatively as well under high as under medium to low rainfall in Tasmania. This is in contrast to the performance of cv. Currie and Brignoles which become increasingly less competitive as the rainfall increases.

The persistence of Porto has been at least equal to the persistence of other cultivars during the trial period. Currie could be expected to be more resistant to summer moisture stresses than Porto because of its much greater summer dormancy potential. The amount of winter leaf injury to Porto is similar to that experienced by Grasslands Apanui and less than by Cressey.