

BOREAL CREEPING RED FESCUE¹

Boreal creeping red fescue was developed at the Research Station, Beaverlodge, Alberta as a general-purpose variety for turf and pasture. It has a high degree of uniformity in the mature seed plants to facilitate straight combining in most seasons. It was granted license No. 1022 in Canada in February, 1966.

ORIGIN AND METHOD OF BREEDING

Original selections were made in 1956 from rejuvenated commercial seed fields in northern Alberta which had been seeded some 10 to 15 years earlier to the Olds variety. Open-pollinated seed of 300 lines was used to establish duplicate progeny rows which were rated for 3 years for seedling vigor, winter injury, uniformity, disease resistance (primarily leaf rusts), and seed and herbage yields. The 36 top-yielding clones with similar maturity dates were planted in an isolated polycross block. Equal quantities of polycross seed from each clone were used to establish the Breeder seed plot.

DESCRIPTION

Boreal is typical of the species *Festuca rubra* L. but is comparatively free of the extreme early, late, tall and short plants common to other varieties. Plant heights range from 50 to 60 cm in locations where Olds plants vary from 40 to 70 cm. Crown widths of mature, first-year plants of Boreal vary from 10 to 15 cm, compared with 7 to 20 cm for Olds. Maturation of seed for all plants is attained within a 4-day period for Boreal, while Olds may require 6 or more days. Boreal excels in seedling vigor and establishment, and tends to have a stronger creeping root system than other varieties.

Table 1. Comparative data from fescue variety trials in Alberta and northern British Columbia

Variety	Yield (Olds = 100)					
	Forage			Seed		
	2 locations 1 year	3 locations 2 years	2 locations 3 years	1 location 1 year	3 locations 1 year	2 locations 3 years
Boreal	125	102	106	121	109	105
Olds	100	100	100	100	100	100
Duraturf	99	97	97	118	108	94
Illahee	76	86	—	44	57	—
Pennlawn	75	86	—	53	63	—
Yield of Olds (kg/ha)	1949*	4659	4301	840	860	624

*Kilograms per hectare were obtained by multiplying the number of pounds per acre by 1.12.

PERFORMANCE

Seed and herbage yields of Boreal were superior to other varieties in comparative tests in central and northern Alberta and northern British Columbia from 1962 to 1966 (Table 1). Its rapid establishment, uniformity and good yields of herbage and seed should enhance its use for turf, pasture and seed production. The broad genetic base of Boreal should ensure its acceptance in foreign markets.

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