
 NOTES

MUSKETEER WINTER RYE

Musketeer, a new high-yielding cultivar of winter rye (*Secale cereale* L.), combines good winterhardiness, high test weight, and 1000-kernel weight, early heading and maturity and good resistance to lodging. It is well-adapted to Western Canadian growing conditions. It was licensed in July 1980. Breeder seed of Musketeer will be maintained by the Swift Current Research Station, Agriculture Canada. Seed will be distributed through SeCan.

Musketeer, nouveau cultivar productif de seigle d'hiver (*Secale cereale* L.), combine les qualités d'une bonne résistance au froid, de poids de l'hectolitre et de 1000 grains élevés, d'une épiaison et d'une maturité précoces, ainsi que d'une bonne résistance à la verse. Il est bien acclimaté aux conditions de végétation de l'Ouest canadien. Il a été homologué en juillet 1980. La semence de l'obteneur sera conservée par la Station fédérale de recherches agricoles de Swift Current. Elle sera distribuée par SeCan.

Musketeer is a high-yielding cultivar of winter rye (*Secale cereale* L.), developed by D. S. McBean and S. R. Buzinski of the Research Branch, Agriculture Canada and tested under the number RT124. Several desirable traits that are found in various cultivars have been combined in Musketeer. License number 2037 was issued for Musketeer in July 1980 by the Food Production and Inspection Branch of Agriculture Canada.

Pedigree and Breeding Methods

Musketeer was selected by D. S. McBean from the hybrid Harrach//Petkus/Dakold. The original cross was produced in 1969 and subjected to mass selection for five generations. Selection was concentrated on winterhardiness, large kernel size, blue kernel color, short straw, early maturity and high floret fertility. Selections from the fifth generation were bulked, increased and used in subsequent yield testing. Two hundred kilograms of breeder seed was released in 1980 to SeCan association for further increase and distribution.

Performance

Musketeer outyielded Puma, Cougar, Frontier and Kodiak in Western Canada (Table 1). In addition, it has performed well at a few locations outside of Western Canada; however, more extensive testing is required to determine its suitability in these other areas. Musketeer appears to be particularly well-adapted to Alberta growing conditions (Table 1).

Description

KERNEL. High 1000-kernel weight (Table 2), uniform size, uniform blue color, mid-long to long, mid-wide to wide.

MATURITY. Equal to Frontier and earlier than Cougar, Puma and Kodiak (Table 2).

SPIKE. Awned, long, mid-lax, nodding at maturity, white chaff.

STRAW. Taller than Cougar, equal to Puma and shorter than Frontier and Kodiak. Straw strength is superior to Kodiak, Puma and Frontier, but not equal to Cougar (Table 2).

SHATTERING. Equal to Puma and Cougar in resistance.

WINTERHARDINESS. Musketeer is equal to Frontier and Puma and superior to Kodiak and Cougar.

Table 1. Comparative yield of Musketeer, Frontier, Cougar, Puma and Kodiak winter rye in the Prairie Provinces (1976-1979)

Province	Yield (% of Puma)					No. of locations
	Musketeer	Frontier	Cougar	Puma	Kodiak	
Saskatchewan	103	94	92	100	89	23
Alberta	116	99	100	100	106	12
Manitoba	104	93	88	100	87	15

Table 2. Summary of agronomic data from Western Cooperative winter rye tests, 1976-1979

Cultivar	Winter survival (%) (28)†	Test weight (kg/hL) (59)	1000-kernel wt (g) (57)	Deviation from standard			Lodging resistance (1-9)‡ (23)
				Heading (days) (33)	Maturity (days) (42)	Height (cm) (56)	
Musketeer	90	73	30	0	0	+10	2.2
Frontier	89	74	27	Standard	Standard	+12	3.6
Cougar	80	73	27	+2	+2	Standard	1.8
Kodiak	71	68	30	+3	+2	+13	2.6
Puma	86	73	27	+1	+1	+10	3.1

†No. of tests.

‡1 = no lodging; 9 = severe lodging.

DISEASE. Reaction to ergot, *Claviceps purpurea* (Fr.) Tul., is equal to Puma, Cougar, Frontier and Kodiak. No other diseases have been recorded and it is untested for reaction to other disease.

ADAPTATION. Rye-growing areas of the prairies.

J. G. McLEOD, D. S. McBEAN, and S. R. BUZINSKI
Research Station, Research Branch, Agriculture Canada, Swift Current, Saskatchewan S9H 3X2. Received 30 Dec. 1980, accepted 22 Apr. 1981.