REGISTRATION OF CROP CULTIVARS

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selected in 1972 from 219 F7 lines. It was entered in the Alberta regional tests in 1974 as 364-12, and was advanced to the Western Cooperative Oat Test in 1975 where it was tested for 4 years under the number OTT226. In 1979, Cascade was licensed (No. 1920) and has been assigned the Plant Gene Resources of Canada number CN0001793.

Cascade is susceptible to Puccinia graminis Pers. f. sp. avenae Eriks. and E. Henn. and P. coronata Cda. f. sp. avenae Eriks. and E. Henn. and is moderately resistant to Ustilago avenae (Pers.) Rostr. and U. kolleri Wille. It is moderately susceptible to barley yellow dwarf virus.

Cascade is a high yielding oat with good lodging resistance and mid-season maturity. It demonstrated superior performance on the black and grey soils of Alberta where in the 4-year period 1975-1978 its yield exceeded ‘Grizzly’, the high yielding check, by 9.4%, ‘Harmon’ by 18.3%, and ‘Random’ by 11.7%. Cascade is similar to Grizzly in kernel weight, percent hull and plant height, but has better lodging resistance and is 3 to 4 days earlier in maturity. Cascade is not recommended for areas where rusts are a problem.

The panicle is equilateral, slightly nodding and similar in size to that of Harmon. Panicle branches are medium long, spikelets are drooping and bear two to three florets. Awns are few and weak. The leaves are medium green with a slight waxy bloom, long, medium wide and have many hairs on the margins of lower leaves. The lower leaf sheathes are glabrous to slightly hairy. The lemma is long with pointed tips and prominent barbs. There are few basal hairs of medium length and strength and irregular placement. The rachilla is medium long and glabrous to few hairs. Straw is medium long and yellow with some purple coloration at maturity. Upper nodes are glabrous. The grain is medium in length and width. Protein and oil are 0.7% less than Random.

Initial seed stocks were increased at the Agriculture Canada Res. Stn., Regina Saskatchewan, and were released to SeCan for further increase and distribution. Breeders seed is maintained at Regina.

REGISTRATION OF CORBIT OATS

(D.M. Westenberg, R.M. Hayes, J.A. Benson, and G.F. Carnahan)

‘CORBIT’ spring oats (Avena sativa L.), CI 9266, was developed cooperatively by ARS, USDA, and the Idaho Agric. Exp. Stn. It was released in 1977 by these agencies and the Oregon Agric. Exp. Stn.

Corbit is from a cross of ‘Cayuse’/’Orbit’ made at Aberdeen in 1966. Cayuse was jointly released by Washington State Univ. and the Univ. of Idaho in 1966. Orbit was released in 1963 by Cornell Univ. The F2 line that became Corbit was selected at Aberdeen in 1971 and designated 71Ab716. It has been tested in replicated yield trials in Idaho since 1972 and in the Uniform Northwestern States Oat Nursery since 1973.

Corbit is a relatively stiff-strawed, midseason, spring oat with good lodging resistance. Juvenile plant growth is erect and panicles are equilateral. Leaf sheath, leaf margins, and culm internodes are glabrous. It has mid-plump, yellow kernels similar to Cayuse in color and shape. Rachillas are mid-long, and awns frequently occur on primary kernels. Test weight of Corbit averaged 1.6 kg/hl higher than Cayuse in southern Idaho irrigated trials in 1973-80 and its great protein percentage and great percentage averaged 0.4 and 0.7 points lower than Cayuse, respectively. It is equal to Cayuse in kernel weight, heads about 2 days later, and is 3 to 5 cm taller under irrigation.

Corbit averaged 2.1% higher than Cayuse in yield in 15 irrigated trials at Aberdeen and Twin Falls, Idaho in 1973-80. In northern Idaho nonirrigated trials during 1974-79, it yielded 20.1% higher than Cayuse at Bonners Ferry without supplemental manganese fertilizer and 10.5% higher with supplemental manganese. Corbit exceeded Cayuse in yield by 0.9% in 196 station-years of irrigated and dryland testing in the Uniform Northwestern States Oat Nursery during 1973-80. It exceeded ‘Otana’ in yield by 6.3% in 49 station-years of testing in these regional trials during 1973-76 and 1979-80.

Breeders and foundation seed will be maintained by the Tetonia Research and Extension Center, P.O. Box 743, Rexburg, ID 83440.

REGISTRATION OF BLAZER PERENNIAL RYEGRASS

‘BLAZER’ perennial ryegrass (Lolium perenne L.) was developed and released by Pickseed West, Inc. of Tangent, OR, using germplasm obtained from the New Jersey Agric. Exp. Stn. Blazer is a 33-clone advanced generation synthetic cultivar. The original source of most of the parental germplasm constituting Blazer was plants collected from old turfs in New York, Maryland, Pennsylvania, and New Jersey. In addition to these sources, a plant resistant to crown rust caused by Puccinia coronata Corda selected out of PI 197, 270 from Finland, was used as a donor in a modified backcrossing program to provide an additional source of crown rust resistance. Intercrosses of the above germplasm were subjected to varying cycles of phenotypic recurrent selection for disease resistance, stress tolerance, attractive appearance, improved mowing qualities, and turf performance. Selected plants were then used to constitute three separate breeding populations designated A, D, and M. The 33 parental clones of Blazer were selected from these populations. This program involved the screening of over 32,000 seedlings for crown rust resistance, the evaluation of nearly 5,000 clones in spaced-plant nurseries, and the study of nearly 300 single plant progenies in seeded turf trials subjected to frequent close mowing. Pickseed R-34 was the experimental designation of Blazer. The first certified seed was produced in western Oregon in 1978.

Blazer is a leafy, persistent, turf-type ryegrass capable of pro-