REGISTRATION OF CROP CULTIVARS

REGISTRATION OF PENNWINT
WINTER OATS1
(Reg. No. 253)

H. G. Marshall

‘PENNWIN’ winter oats (Avena byzantina K. Koch), C.I. 8312, Pa. 418-1099, was developed and released cooperatively by The Pennsylvania Agricultural Experiment Station and the Agricultural Research Service, U.S. Department of Agriculture.

Pennwin was derived from the cross ‘Dubois’ × Pa. 5037 2x ‘Ballard.’ Pa. 5037 was a ‘Haury Culberson’ × ‘Nysel’ selection. The initial cross, ‘Dubois’ × Pa. 5037 was made in 1958, and the F1 hybrid was crossed to Ballard (XM59G25) in the greenhouse during 1959. The F1 hybrid from the final cross was grown in the greenhouse during 1960, and the F2 through F4, bulked were grown near University Park, Pa., in subsequent years. Pennwin traces to a single panicle selection made in a severely winter-killed F4 plot during 1964. The cultivar was outstanding for panicle thinness in preliminary tests during 1965, and was entered in Pennsylvania advanced tests in 1966.

Pennwin is a medium maturity winter oat. Juvenile plants are very decumbent, with numerous tillers. The leaves are medium in width and color, with some marginal pubescence. Culms are medium in height, mid-stout, and pubescent above and below the nodes. The panicle is equalateral, midlong, and mid-wide. The rachis is straight, with mid-long branches that droop slightly at maturity. A false node is absent. The glumes are mid-long, fine textured, and white. The lemma is of medium length and width, and the palea is grayish white. Each spikelet has two florets, and floret separation is by imperfect disarticulation. Kernels are awnless, mid-plump, and white, but have a tendency toward gray streaking on the tip ends. The kernel usually has an obscure basal scar, and pubescence is absent. The rachilla is long and mid-wide, and the false node is absent.

The Pennsylvania Agricultural Experiment Station, University Park, Pa. 16802, will maintain breeder seed.

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REGISTRATION OF TRIO OATS1
(Reg. No. 252)

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‘TRIO’ oats (Avena sativa L.), CI 7698 originated as a selection from the cross ‘Improved Gatrity’/5/Landhaff’/3/’Mind’/’Ha-
Jira’/’Joanette’/4/’Andrew’ made at Beltsville, Md., in 1956. The final selection (Ab 601079) was made at Aberdeen, Idaho, in 1960. Trio oats was jointly released by the Kansas and Nebraska Agricultural Experiment Stations and the U. S. Department of Agriculture in the spring of 1971. It produced high yields of grain during six years of testing in the Uniform Early Oat Performance Nurseries during 1966-1967 and since then in Kansas and Nebraska performance trials.

Trio has fairly large, yellow grain of average test weight, slightly shorter and stiffer straw and about the same maturity as ‘Victorgrain.’ It resists several races of leaf rust (203 and 216) and is heterogeneous for the A stem rust genes and homogenous for the B and D genes. It is highly resistant to smut. It has shown some resistance to barley( (Hordeum vulgare) L.) yellow dwarf virus.

Trio has an upright juvenile growth; the culm is mid-short. Trio has slight or no pubescence on the sheath or leaf, and none on the nodes. The leaf is mid-wide and medium dark green. The panicle is equalateral, mid-long, and mid-wide. The rachis is straight to slightly flexuous. There are 6 to 7 nodes and the false node is absent. It has 16 to 20 mid-long branches, and 17 to 20 spikelets. The glumes are reddish-yellow, mid-long, and mid-wide in texture, 2 to 3 florets, and lemma are yellow to reddish-yellow, mid-long with 7 nerves. The palea is mid-wide and light reddish-yellow. The awns are few, straight, and orange-yellow. The kernels are mid-long, mid-wide, and non-pubescent; the base of the lemma has orange hair.

Foundation seed will be maintained by the Kansas and Nebraska Agricultural Experiment Stations.

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REGISTRATION OF WINDSOR OATS1
(Reg. No. 254)

T. M. Starling, C. W. Roane, H. M. Camper, Jr., and F. A. Coffman

‘WINDSOR’ winter oats (Avena sativa L.), C. I. 9140, Va. 65-92-
21, was released in August, 1971 by the Research Division, Virginia Polytechnic Institute and State University. It was selected from the cross ‘Victorgrain 48-93’ × ‘Cimaron,’ made in 1955. Early generation material was obtained from Coke’s Pedigreed Seed Company, Hartsville, South Carolina. The single-plant selections that led to Windsor were made in the F2 and F3 generations at Virginia Polytechnic Institute and State University.

In Virginia, Windsor is expected to replace the ‘Roanoke’ cultivar. Compared with Roanoke, Windsor is more winter-hardy, approximately 25 cm shorter, stiffer-strawed, similar in volume weight, and higher in yield, and matures about a week earlier. In 24 tests grown in Virginia from 1965 through 1972, and in 23 tests grown in North Carolina over a 4-year period, Windsor yielded approximately 20 and 40%, respectively, more than Roanoke. Windsor is moderately resistant to soil-borne mosaic, but is susceptible to crown rust.

Windsor is described as having mid-decumbent juvenile growth, mid-long culms, slight pubescence on leaf sheath, mid-wide leaf, and mid-long light-green leaf color. The adult plant is early and mid-short (85 to 110 cm). The culms (3 to 4) are stout. Nodal

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