REGISTRATION OF GERMLASMS

REGISTRATION OF LUKE WHEAT1
(Reg. No. 533)

C. J. Peterson, O. A. Vogel, D. W. George, and R. J. Metzger

'LUKE' wheat (Triticum aestivum L.), CI 14586, is a semi-dwarf soft white winter wheat cultivar developed cooperatively by the Agricultural Research Service, USDA, and Washington State Agricultural Research Center. Luke was released jointly by the Agricultural Experiment Stations of Washington, Oregon, and Idaho, and the Agricultural Research Service in 1970.

Luke was selected in the F4 generation from the cross PI 178383/2*Burt'/CI 13438, made at Pullman, Washington, in 1960. The cross PI 178383/2*Burt was made by the Agricultural Research Service, USDA, at Corvallis, Oregon. Luke was evaluated in the observation and performance nurseries of Washington from 1966 to 1970.

Luke has a lax spike with long awns. The glumes are white, long, and midwide. The kernels are white, soft, and midlong, and the crease is shallow. Luke is resistant to all known races of common and dwarf bunt in the Pacific Northwest, but it is susceptible to flag smut. It has field resistance to stripe rust and is susceptible to stem and leaf rust. Luke is more tolerant to Cercospora and Fusarium foot rots than 'Nugaines.' The winterhardiness of Luke is slightly less than that of Nugaines, and it develops a crown 5 to 15 mm shallower than that of Nugaines.

The moderate snow-mold tolerance of Luke is similar to that of 'Moro.' The seedling vigor of Luke is superior to that of Nugaines, but it has weaker straw than Nugaines. Luke mills better than Nugaines and produces an excellent pastry-type flour. Additional information on performance and management has been published.

Luke is intended for production in the areas of Oregon, northern Idaho, and Washington where dwarf bunt is a problem. Breeder and foundation seed will be maintained by the Washington State Crop Improvement Association under the supervision of the Agronomy and Soils Department, Washington Agricultural Research Center and the USDA, Pullman, WA 99163. Registered and certified seed will be produced from foundation seed.

REGISTRATION OF W-332 WHEAT2
(Reg. No. 534)

L. D. Robertson and K. E. Miskins

'W-332' hard red winter wheat (Triticum aestivum L.) is a winter habit variety, with winterhardiness equal to that of Scout. W-332 has early to midseason maturity, midstrength and solid nodes and midstrong internodes. Leaves are narrow and freed with an erect flag leaf. Spike is fusiform, middle hard, length 6 cm, and is 10% taller. Spike carriage ranges from erect to nodding. Spikelet is midsized with midlong hair. Glumes are white, narrow, and long, and are acuminated. Glume shoulders are narrow and oblique, with an erect flag leaf. Spike is fusiform, middle hard, length 6 cm, and is 10% taller. Spikelet is midsized with midlong hair. Glumes are white, narrow, and long, and are acuminated. Glume shoulders are narrow and oblique, and predominantly shorter than 3 mm.

As W-332 is a backcross derivative of Scout, it is similar to Scout in most agronomic and quality characteristics and can be distinguished from Scout because it is 2 to 3 cm shorter in length and heading and 3 cm taller. The most important differences are that W-332 has the Agent leaf rust resistance and stronger straw. W-332 has a slightly lower percent flour protein and a slightly higher sedimentation value than Scout. Flour yield and loaf volume are equal to those of Scout. As W-332 has the same broad adaptation as Scout, it will be grown farther east because of its stronger straw.

Funk Seeds International, Inc., will be the sole source of registered seed of W-332. U.S. Variety Protection applied for.


Registration of Germplasms

REGISTRATION OF ALFALFA GERMPLASM1
(Reg. No. GP 39 and 40)

O. J. Hunt, R. N. Peaden, M. W. Nielsen, and C. H. Hanson

Plants from 3- and 4-year old broadcast stands of Kansas synthetics, and a Nebraska synthetic. Mes 300 selected plants of 'Buffalo,' 'Williamsburg,' synthetics, DuPuits, 'Oklahoma Common,' and 'Kansas Common' and was initiated in a similar manner. Recurrent and genetic variances of several characters in two pools of alfalfa germplasm. Crop Sci. 3:543-546. Published January, 1974.