The spike of Chisholm is awned, fusiform to oblong, and middense; awns are white and 4 to 7 cm long; glumes are glabrous, white, midlong, and narrow to midwide; the shoulders are narrow and square; beaks are narrow, acuminate, and vary from 3 to 6 mm in length; the kernels are red, midlong, hard, and elliptical to ovate; the germ is midsized; the crease is narrow and shallow; cheeks are rounded; and the brush is midsized and midlong.

The cultivar was evaluated in the Southern Regional Performance Nursery in 1982 and 1983 as OK754615E (composite of early maturing reselections). Chisholm has sufficient winterhardiness for Oklahoma and is adapted to all wheat growing areas in the state. The cultivar has an excellent yield record in Oklahoma. In 4 years of state-wide tests (24 environments) during 1980-1983, the average grain yields for Chisholm, 'TAM 105,' 'Vona,' 'TAM W-101,' 'Payne,' 'Newton,' and Triumph 64 were, respectively, 4365, 4163, 3989, 3962, 3955, 3861, and 3457 kg ha⁻¹. Chisholm has good milling and baking properties. It has rather strong dough mixing properties and good loaf volume potential. Chisholm has moderate field resistance to mosaic virus; moderately susceptible to streak mosaic soil-borne virus; and moderately resistant to leaf rust caused by Puccinia recondita Rob. ex Desm. f. sp. tritici naturally occurring in Indiana; to leaf rust caused by Puccinia graminis Pers. f. sp. tritici E. Marchal occurring in Indiana; and to some races of Puccinia graminis DC. f. sp. tritici E. Marchal. It is susceptible to soilborne mosaic virus, wheat streak mosaic virus, and powdery mildew (incited by Erysiphe graminis DC. f. sp. tritici E. Marchal).

Breeder seed of Chisholm will be maintained by the Oklahoma Agric. Exp. Stn. Foundation seed will be available from the Oklahoma Foundation Seed Stocks, Inc., Dep. of Agronomy, Oklahoma State Univ., Stillwater, OK 74078.

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References and Notes

1. Professor, Dep. of Agronomy; research agronomist, USDA-ARS; assistant professor, Dep. of Agronomy; professor, Dep. of Biochemistry; and senior agriculturalist, Dep. of Agronomy, Oklahoma State Univ., Stillwater, OK 74078. Journal article 4477 of the Agric. Exp. Stn., Oklahoma State Univ., Stillwater, OK 74078. Investigations were supported in part by the Oklahoma Wheat Commission and Oklahoma Wheat Research Foundation. Registration by Crop Sci. Soc. of Am. Accepted 7 Sept. 1984.

REGISTRATION OF FILLMORE WHEAT

'FILLMORE' soft red winter wheat (Triticum aestivum L.) (Reg. no. 692) PI 469272 was developed by the Purdue University Agricultural Experiment Station in cooperation with USDA-ARS and released in 1982. Fillmore resulted from the cross P5724B3-5P-8-2*2/'Siete Cerros'. P5724B3-5P-8-2 and 'Benhur' were derived from the same cross (1). Fillmore was evaluated as IN65256A1-9-7 for performance in nursery trials for 5 years, 1976 to 1981; in intrageneration of self-pollination. Fillmore was developed by the Purdue University Agric. Exp. Stn. Foundation seed will be available from the USDA-ARS and released in 1982. Fillmore resulted from the cross P5724B3-5P-8-2 and 'Benhur' were derived from the same cross (1). Variety protection was applied for under the Plant Variety Protection Act, Public Law 91-577, in conjunction with Title V of the Federal Seed Act. If granted, the owners will further specify that Fillmore may be sold for seed only by F. L. PATTERSON, R. L. GALLUN, J. J. ROBERTS, AND G. H. MORGAN (1) (2)

REGISTRATION OF 'HYCREST' CRESTED WHEATGRASS

'HYCREST' (Reg. no. 16) was released by Purdue Research Service in cooperation with USDA-ARS and released in 1982. Fillmore resulted from the cross P5724B3-5P-8-2*2/'Siete Cerros'. P5724B3-5P-8-2 and 'Benhur' were derived from the same cross (1). Variety protection was applied for under the Plant Variety Protection Act, Public Law 91-577, in conjunction with Title V of the Federal Seed Act. If granted, the owners will further specify that Fillmore may be sold for seed only by R. L. GALLUN, J. J. ROBERTS, AND G. H. MORGAN (2).