REGISTRATION OF 'SISKIYOU' TRITICALE

'SISKIYOU', CI17603, triticale (X Triticosecale Wittmack) (Reg. no. 3) was jointly developed by the International Maize and Wheat Improvement Center (CIMMYT), Mexico, and the Univ. of California, Davis. It was released in 1976 by the California Agric. Exp. Stn., the Texas Rice Improvement Association; and the Texas Rice Research Foundation. Registration by Crop Sci. Soc. of Am. Accepted 2 Apr. 1985.

REGISTRATION OF 'MORRISON' TRITICALE

'MORRISON', a winter triticale (X Triticosecale Wittmack) (Reg. no. 4) was developed by Alabama A&M Univ., Normal, AL, and released in 1984. The selection from which it derived was made in 1977 from CIMMYT (International Maize and Wheat Improvement Center) forage nursery No. 96-6. It was evaluated under the experimental designation AM 4106. The full pedigree is not known but selection No. 96-6 is designated in the CIMMYT record as Tejon/IRA, X 13896-D-100Y-102B-100Y-100-17M-0Y.

Morrison is classified as a hexaploid winter triticale (2n=6x=42) which has shown winter adaptability to diverse agroclimatic locations such as Wooster, OH; Knoxville, TN; and Clemson, SC. It flowers 7 days earlier than 'Councill' triticale but matures at the same time as Councill (186 days from planting). Morrison is 130 cm in height and 15 cm taller than Councill. It was tested for grain and forage yields in replicated plot trials in north Alabama and has performed well with an average grain yield of 3500 kg/ha as compared to 2800 kg/ha for Councill.

The awns are short and purple to black just before maturity. The peduncle is pubescent from the lowest spike internode for a distance of about 5 cm. The glumes are glabrous. The mature plant height of Siskiyou is 120 to 150 cm when compared to 'Leeds' durum at 115 cm, Anza wheat at 80 cm, and '6TA204' triticale at 130 cm (1). Its maturity is midseason to late. Spike fertility is good, but lower than many triticale cultivars. The kernels are light red and somewhat wrinkled. The kernel shape is distinctive as compared to 6TA204 and other triticales because of a somewhat shorter kernel and a pointed embryo end (like durum wheat). Test weight is typically 64 to 66 kg/hl.

The protein content of the grain is approximately 1.5% units higher than Anza wheat and about 1.5% units lower than 'Inia 66R' wheat. Lysine content expressed as a percentage of kernel protein was 3.0, which was similar to other triticales, but higher than Anza wheat (2.6%) (1).

The cause of incomplete fertility in Siskiyou has not been investigated; its meiotic index is similar to other triticale having higher fertility. A low frequency of tall aneuploid-type plants can be found in the cultivar, similar to other triticales, and these cannot be removed by repeated selection and roguing. Aneuploidy and the resultant increased opportunity for outcrossing lead to the recommendation that isolation of Siskiyou from wheat and other triticale is desirable to retain the integrity of the cultivar. Seed stocks are maintained and distributed by the Foundation Seed and Plant Materials Service, Univ. of California, Davis.


References and Notes

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REMARKS

Siskiyou is a hexaploid triticale with spring growth habit which has all seven pairs of rye chromosomes. Siskiyou is genetically adapted in California to high elevations with spring planting in northern California (1). In the 7th CIMMYT International Triticale Yield Nursery (ITYN) Siskiyou performed well at the high latitude spring-planted sites in North America, but was not adapted to most of the winter-planted sites, as was observed in California. Typical grain yield data have been previously reported (1). In 3 years of testing at Tulelake, CA, the mean grain yield of Siskiyou was 5.69 t/ha, which was 17% higher than the next highest yielding triticale, 19% higher than 'Anza' wheat, and 10% higher than 'Wocus' barley.

Siskiyou has long, somewhat lax spikes with white glumes.

and IC-17 of the current U.S. races of the blast fungus (Pyricularia oryzae). Like Lebonnet and Labelle, Skybonnet is very susceptible to sheath blight disease (caused by Rhizoctonia solani). Based on disease nursery data in Arkansas, Skybonnet is rated moderately resistant to the physiological straighthead disease. Skybonnet is resistant to panicle blight (cause unknown) and appeared resistant to white-tip nematode in a nursery in which many other lines showed white-tip symptoms. It is moderate in reaction to brown spot (caused by Bipolaris oryzae) and narrow brown leaf spot (caused by Ceratospora oryzae).

Based on observations in roguing foundation and breeder seed fields at Beaumont, Skybonnet appears to have an extremely low number of genetic variants. The principal variants noted were plants that appeared to be slightly taller than typical Skybonnet plants. It is probable that most or all of the taller plants resulted from environmental rather than genetic causes. One plant was found that was typical of Skybonnet except for a grain shape intermediate between that of a long- and medium-grain type.

Application is not being made for protection of Skybonnet under the Plant Variety Protection Act. Breeder and Foundation seed of Skybonnet will be maintained by the Texas A&M Univ. Agric. Research and Extension Center at Beaumont, TX.

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