Bel 921 was evaluated in replicated tests for 2 years at Oxford and Kinston, N.C. in the absence of the brown spot disease. Line was compared with NC 95 and Speight G-28 for agronomic and chemical characteristics. Plant height of Bel 921 was approximately that of NC 95 but averaged about 18 cm taller than Speight G-28. Leaf number was equal to that of NC 95 but the line flowered 5 days later than the parental cultivars. Leaves were equal or slightly larger in size than those of NC 95 and Speight G-28. Yield, chemical composition and grade index of the cured leaf compared favorably with NC 95 and Speight G-28. The cured tobacco from the line was made into cigarettes and smoked by a taste panel and compared with 'NC 2326', a flue-cured cultivar with acceptable smoke characteristics. The results showed "acceptable, comparing favorably with NC 2326 in taste and flavor, but not as full bodied being milder and smoother". Previously, in most instances, smoke from brown spot resistant lines developed from Beinhart 1000-1 have retained the cigar flavor which is undesirable in flue-cured tobacco (1).

Bel 921 is also resistant to root knot caused by Meloidogyne incognita (Kofoid and White) Chitwood and black shank caused by Phytophthora parasitica var nicotianae (Breda de Haan) Tucker. Bel 921 offers a source of tobacco germplasm that has Beinhart 1000-1 type brown spot resistance and produces tobacco, when smoked, that has an acceptable flue-cured taste. Seed stock will be maintained and distributed by the Oxford Tobacco Res. Lab., USDA-ARS, Oxford, NC 27565.

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References and Notes

REGISTRATION OF REGISTRATION OF Triticale Germplasm PI 466703 (WHIT)

Whit (PI 466703), a high yielding spring triticale (X Triticeae Wittmack) (Reg. no. GP10) was developed cooperatively by the USDA-ARS and the Washington State Agricultural Research Center at Pullman, Wash. It was released as germplasm in 1982. Whit (VT 075229) was selected in the F4 from the cross TC6437/TC6A299/4A476. It is a low tillering, high yielding, stiff strawed, spring triticale with awns, large spikes, and light brown glume color. The kernels are long, elliptical, red, shrivelled, and have a deep crease. The germ is large. Whit is approximately 40% taller than the semidwarf winter wheat (Triticum aestivum L. em. thall) 'Daws' and the plant height is unstable. Plant height of individual plants will vary as much as 15 to 20 cm. Whit yields best from fall plantings and has about the same tolerance to cold as winter barley (Hordeum vulgare L.). Grain yields have equalled or exceeded the winter wheats, Daws and 'Stephens', during years of mild winters. Whit has equalled or exceeded the grain yields of the adapted spring wheat, 'Fielder', from early spring plantings. It was tested in Washington, Idaho, and Oregon, periodically from 1976 to 1981. The test weight of Whit is about 17 percent lower than that of Daws wheat. Whit is resistant to stripe rust (Puccinia striiformis West.) and leaf rust (Puccinia recondita Rob. ex Desm. f. sp. tritici) but it is very susceptible to Cephalosporium stripe (Cephalosporium gramineum Nis. and Ika.). Protein content has averaged 2 to 3 percentage points higher than that of the hard red winter wheats that were tested. Small amounts of seed can be obtained from the Wheat Breeding and Production Unit of the USDA-ARS, Pullman, WA 99164.

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REFERENCES AND NOTES

REGISTRATION OF REGISTRATION OF FOUR HARD RED WINTER WHEAT GERMPLASM LINES

The four lines of winter wheat (Triticum aestivum L.) (GP Nos. 225-228) are all awned semidwarf hard red winter wheat. They all have satisfactory resistance to lodging, but none appears to have straw as strong as 'Sturdy'. Winter-hardiness of these lines, with the exception of TX78V2154, is sufficient for the Southern Great Plains, and winterhardiness of TX78V2154 is sufficient for southern Oklahoma and Texas. The lines performed well in the 1980 and 1981 Southern Regional Performance Nurseries (SRPN) (1). Results from baking composite samples from the 1980 and 1981 Southern Regional Performance Nurseries indicate that all four lines have good milling and baking characteristics similar to 'Sage' (2). These lines have high yield potential, wide adaptation, and other characteristics which make them valuable as parents.

TX71A889, Sturdy sib, TX391-56-D8/'Tascoa' (TX6222642)/'Centurk' (GP no. 225) is a brown chaff selection that is moderately resistant to races of leaf rust caused by Puccinia recondita Rob. ex Desm. f. sp. tritici prevalent in Texas. TX71A889 has not been severely infected with stem rust caused by Puccinia graminis Pers. f. sp. tritici Eriks. & Hen. in Texas, but it had a susceptible reaction in inoculated nurseries grown in Minnesota (1). It is susceptible to soil-borne mosaic virus. TX71A889 ranked second for average grain yield in the 1980 SRPN (1)

TX79A2729, 'FAM W-105'/'K571617, 'Newton' sib (GP no. 226) is a white chaff selection which is susceptible to leaf rust, powdery mildew caused by Erysiphe graminis DC. f. sp. tritici E. Marchal, and stem rust, but moderately resistant to soil-borne mosaic virus. TX79A2729 has high yield potential and ranked second in average grain yield in the 1981 SRPN (1).

TX73V862, Sturdy sib, TX391-56-D8/'Triumph' (TX65A1664)/'Centurk' (GP no. 227) is a white chaff selection which is resistant to some leaf rust races prevalent in Texas. The reaction of TX73V862 to leaf rust has varied from 10R to 60S. Its reaction to stem rust in an inoculated nursery grown in Minnesota was 10MR-MS (1). TX73V862 has not been susceptible to stem rust in field tests in Texas.