quate pollen production and seed yield, B88 may not be useful for hybrid seed production, but it should be useful in a pedigree breeding program. Maturity classification is AES800.

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References and Notes

REGISTRATION OF NC250 MAIZE GERMPLASM
NC250 (Reg. no. GP-140) germplasm inbred (Zea mays L.) was developed cooperatively by the North Carolina Agricultural Research Service, USDA-ARS, and Pfister Hybrid Corn Company and has shown exceptional mature plant resistance to race 0 of Southern Corn Leaf Blight incited by Helminthosporium maydis Nisik. & Miy. [= Bipolaris maydis (Nisik.) Shoemaker ].

NC250 is a yellow kernel, dent maize inbred derived from the cross (Nigeria Composite A-Rb X B37) X B37. The initial cross was made in 1974 and segregating generations were grown in winter nurseries from September to February near Homestead, FL and selected for mature plant resistance in natural epiphytotic. The source of resistance, Nigeria Composite A-Rb, has been described (1).

NC250 had disease ratings of 1.0 to 1.2 on scale of 1 (resistant) to 5 (susceptible), whereas B73 had ratings of 4.5 to 4.7 (3). Ratings for two inbreds with monogenic, chlorotic-lesion resistance were as follows: B73rhm, 4.0 to 4.2; and N28rhm, 4.2. Ratings for other inbreds in this study (3) were: H99, 3.0; NC18, 2.1; NC61, 1.6; NC87, 1.9; and TJ526-2, 1.7. A comparable rating for B37 was 3.9. Information relating to monogenic, chlorotic-lesion resistance has been published (2).

The mature plant resistance of NC250, which extends almost to physiological maturity, was developed by evaluating plants as late as possible before senescence in an environment conducive to continuous infection. This resistance is largely independent of seedling reaction, is governed mainly by additive effects at relatively few loci, and may be transferred by backcrossing (3). Maturity classification of NC250 is AES800.

Seed of NC250 is available in germplasm quantities from the Dep. of Crop Science, North Carolina State Univ. Raleigh, NC 27695-7620.

Seed of NC250 is available in germplasm quantities from the Dep. of Crop Science, North Carolina State Univ. Raleigh, NC 27695-7620.

REGISTRATION OF TXSA 8202 AND TXSA 8218 ST. AUGUSTINEGRASS GERMPLASM RESISTANT TO PANICUM MOSAIC VIRUS ST. AUGUSTINE DECLINE STRAIN
St. Augustinegrass (Stenotaphrum secundatum (Walt.) Kuntze) germplasms TXSA 8202 (Reg. no. GP-27) and TXSA 8218 (Reg. no. GP-28) were developed by the Texas Agricultural Experiment Station for release in 1983. The selection and evaluation of TXSA 8202 and 8218 were conducted at College Station and Dallas, for resistance to panicum mosaic virus St. Augustine decline strain (PMV-SAD). The lines were increased in the greenhouse from single plants that were gamma irradiation (5.83 krad for 50 s) SAD and chinch bug (CB)-resistant cultivar, 'Floratam,' and then transplanted to the field in 1978. Mutants that were SAD- and CB-resistant (3) were also screened and selected for turf shoot characteristics, (ii) cold hardiness, (iii) shade growth potential, (iv) gray leaf spot [caused by Pyricularia grisea (Cke.) Sacc.] resistance, and (v) downy mildew [caused by Sclerotinia grisea (Cke.) Sacc.] resistance. Following cold hardiness screening, TXSA 8202 and TXSA 8218 were increased from single plants in February 1982.

For 6 years, field plots were mowed twice weekly with the clippings returned. Nitrogen fertilization rate was 0.13 kg per ha per growing month, with phosphorus and potassium applied based on annual soil tests. Irrigation was applied as needed to prevent visual wilt. No pesticide was applied. Both TXSA 8202 and TXSA 8218 exhibited improved leaf texture and shoot density compared to Floratam. Based on stress-simulation-chamber assessments, the grasses exhibited improved cold hardiness and shade growth potential in comparison to Floratam. Disease resistance was evaluated both under artificially and naturally induced field epiphytotic. TXSA 8202 and TXSA 8218 were moderately resistant to the gray leaf spot pathogen and were resistant to the downy mildew fungus (3).

Small quantities of vegetative material will be distributed to interested persons by the Texas Agric. Foundation Seed Stock, Texas A&M Univ., College Station, TX 77843.

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Published March, 1985