REGISTRATION OF GERMLASMS

2 are available upon request to C. Wayne Smith, P. O. Box 789, Cotton Branch Exp. Stn., Marianna, AR 72360.

C. WAYNE SMITH (1)

References and Notes


REGISTRATION OF NDSAB AND NDSF MAIZE GERMPLASM

TWO MAIZE (Zea mays L.) (Reg. no. GP125 & GP126) breeding populations developed at the Agricultural Experiment Station, North Dakota State University, were released in 1983 for breeding programs for short growing season areas. Breeder seedstocks are maintained by the North Dakota Agricultural Experiment Station and can be obtained in germplasm quantities from H.Z. Cross, Agronomy Dep., North Dakota State Univ., Fargo, ND 58105.

NDSAB (Reg. no. GP125) is a yellow dent endosperm maize synthetic developed by one cycle of full-sib family selection among 100 full-sib families between NDSA and NDSB, synthetics released in 1979 (1). Twenty families were recombinated to form the original population, which was then mass selected for three cycles for yield and standability. Equal numbers of seeds from 30 ears (half-sib families) were composited to give an improved population each generation. NDSF plants are moderately short with ears placed slightly below midplant. NDSF has higher shelling percentages and test weights than NDSAB. Yields and lodging resistance are similar to NDSC. The kernels are elliptical, white, soft, and midlong, with a shallow crease. The germ is midsized. The response of PI 466704 to common bunt (Tilletia caries (Tilletia controversa (Tilletia recondita Rob. ex. Desm.) E. Marchal) and leaf rust (Erysiphe graminis DC. f. sp. tritici E. Marchal) was developed by the Georgia Agri. Exp. Stn., Georgia St. Exp. Stn., Athens, GA 30602, and released by the Georgia Agricultural Experiment Station (2).

PI470928 was bred for resistance to Hessian fly (Mayetiola destructor (Say)) and for early maturity. PI470928 has high lodging resistance and displays winterhardiness similar to McNair 1813. PI470928 has shown excellent milling and baking quality characteristics in tests conducted at the Soft Wheat Quality Laboratory, Wooster, Ohio.

It has shown resistance to powdery mildew caused by (Erysiphe graminis DC. f. sp. tritici E. Marchal) and leaf rust caused by (Pucdnia recondita Rob ex. Desm.) E. Marchal. However, it is now moderately resistant to the new races of powdery mildew that occurred in the Southeast in 1982, respectively.

Spikes are middense, oblong, apically awned. Glumes are white, midlong and midwide and kernels are red. Bearded lax spike with long, midwide, white glumes. PI470928 is an important germplasm source for soft red winter wheat improvement.

Seed will be maintained at the Georgia Agricultural Experiment, GA 30212. Small quantities (100 g) are available upon request from the senior author.

J. W. JOHNSON, B. M. CUNFER, D. D. MOREY, AND A. R. BROWN (1)

References and Notes

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REGISTRATION OF WHEAT GERMPLASM

PI 466704 (GP222) and PI 466705 (GP223) are semidwarf common winter wheat (Triticum aestivum L.) (Reg. no. GP127 & GP128) breeding populations with multigenic resistance to powdery mildew (Erysiphe graminis DC. f. sp. tritici E. Marchal) and for early maturity. PI 466704 was developed by the Georgia Agri. Exp. Stn., Georgia St. Exp. Stn., Athens, GA 30602, and released by the Georgia Agricultural Experiment Station (2).

PI 466704 (GP222) and PI 466705 (GP223) are semidwarf common winter wheat (Triticum aestivum L.) (Reg. no. GP127 & GP128) breeding populations with multigenic resistance to powdery mildew (Erysiphe graminis DC. f. sp. tritici E. Marchal) and for early maturity. PI 466704 was developed by the Georgia Agri. Exp. Stn., Georgia St. Exp. Stn., Athens, GA 30602, and released by the Georgia Agricultural Experiment Station (2).

H. Z. CROSS (3)

References and Notes