REGISTRATION OF A GERMPLASM LINE
OF WHEAT
(Reg. No. GP 121)

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and E. E. Sebesta

We have sought a better agronomically adapted wheat line for storing leaf rust (Puccinia recondita Rob. ex Desm. f. sp. tritici Eriks.) resistance genes. In the past, cultivars such as 'Comanche' (CI 11673), 'Wichita' (CI 11952), 'Thatcher' (CI 10003), and 'Prelude' (CI 4323) have been used, but all lack major agronomic characteristics that enhance their use in wheat cultivar improvement programs. Consequently the Oklahoma Agricultural Experiment Station, Stillwater, and AR-SEA-USDA released a hard red winter wheat (Triticum aestivum L. em Thell.) germplasm named Exile (CI 17758) in 1978, which we believe will serve as a more desirable reservoir.

Registration of Parental Lines

REGISTRATION OF B84 PARENTAL LINE
OF MAIZE
(Reg. No. PL 50)

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INBRED B84 is a yellow dent maize (Zea mays L.) inbred line selected from BSSS(HT)C7(Ia19) in the research program conducted cooperatively by the Iowa Agriculture and Home Economics Experiment Station and AR-SEA-USDA.

BSSS(HT)C7(Ia19) is an improved Iowa Stiff Stalk synthetic developed by seven cycles of recurrent selection for yield and other traits. Selection was based on half-sib progeny performances with Ia13 double-cross as the tester parent. The designation was changed to BS13(S5)C0 because S5 progeny became the basis for evaluation. B84 evolved from one of the 10 S5 lines selected for recombination to give BS13(Sj)C1. The final cross was made Triticum sp./Agropyron elongatum. The final cross to combine the short stature and early maturity with the resistance to leaf rust of the translocation on chromosome 3D.

Several selections from the cross were tested and contained the gene LR 24 and some did not. No resistance was designated 754840 and later named Exile was tested in the seedling stage for 3 years of the leaf rust fungus which, in various seasons, contained all of the genes for pathogenicity known in Oklahoma in 1976-78. Exile was susceptible to these cultures. However, in the field a mesothetic reaction may be noted due to the probable presence of conditioned resistance in the adult plant stage.

Exile has acceptable yield and test weight, approximately equal to Sturdy, and early maturity. It is susceptible to wheat streak mosaic virus, bunt (incited by Erysiphe graminis DC f. sp. tritici Eriks.) resistant to wheat soilborne mosaic virus. Reactions to other diseases are unknown.

Exile has been placed in the AR-SEA-USDA Collection at Beltsville, Md. Small quantities are available from the senior author at the Department of Plant Pathology, Oklahoma Agricultural Experiment Station, Stillwater, OK 74074, or from Dr. J. C. Cradde and Germplasm Institute, AR-SEA-USDA, Beltsville, MD 20705.