Evaluation of these lines for fall armyworm damage was conducted under natural infestation in 1979 with scores of 4.0, 4.0, 5.0, and 7.0, respectively, using the 0 to 9 rating scale.

Mp704 is a medium-tall line which has not been evaluated for combining ability. Maturity classification is AES1200.

Breeder seed is maintained and distributed in small quantities by the Agronomy, Dep., Mississippi State Univ., P. O. Box 5248, Mississippi State, MS 39762.

REGISTRATION OF MAIZE GERMPLASM
(Reg. No. GP117 and GP118)

H. Z. Cross

Two maize (Zea mays L.) breeding populations developed at the Agriculture Experiment Station, North Dakota State University were released in 1982 for breeding programs for short growing season areas. Breeder seedstocks are maintained by the North Dakota Agriculture Experiment Station and can be obtained in germplasm quantities from H. Z. Cross, Agronomy Dep., North Dakota State Univ., Fargo, ND 58105.

REGISTRATION OF Mp701 AND Mp702 GERMPLASM LINES OF MAIZE
(Reg. No. GP119 and GP120)

Gene E. Scott, Frank M. Davis, and W. Paul Williams

Both genetic stocks, Mp701 and Mp702, were developed specifically for resistance to leaf-feeding damage by southwestern corn borer [Diatera grandisella (Dyar)] by making selections under conditions of artificial infestation with egg masses. Mp701 is a selection from a bulk of three closely related S's developed from a cross between an S selected from Antigua Gpo. 1 and an S selected from Antigua Gpo. 2. Mp702 is a selection from a bulk of two closely related S's from a cross between an S selection from Antigua Gpo. 2 and an S selection from Republica Dominica Gpo. 1. Both lines have resistance to southwestern corn borer leaf feeding. On a rating scale of 0 (no damage) to 9 (extensive damage), Mp701 and Mp702 rated 5.7 and 5.8, respectively, compared to 6.2 for Mp496 (a previously released resistant line) and 7.8 for the susceptible check. In addition both genotypes have resistance to fall armyworm, Spodoptera frugiperda (J. E. Smith), and southern corn rust caused by Puccinia polysora Underw. Inbreds Mp701 and Mp702 are late in maturity (AES 1200) and silk from 2 to 4 days later than Mp496. Neither line has been evaluated for combining ability, but both have poor general combining ability. Maturity classification is AES1200.

REGISTRATION OF H110 AND H111 GERMPLASM
(Reg. Nos. GP 121 and GP 120)

H. L. Warren

H110 and H111 are yellow dent maize (Zea mays L.) developed cooperatively by the Agriculture Experiment Station, Purdue University (Indiana) West Lafayette and North Dakota Agricultural Experiment Station, Fargo, ND. H110 and H111 are resistant to several major pathogens of maize in the United States. This resistance is derived from selections. PI 209135 (Mayorbela) is a synthetic originating from intercrosses among 11 inbreds with approximate AES200-300 maturity. Parental lines for having good GCA for stalk lodging resistance have been intercrossed for three generations. PI 209135 is a synthetic developed by intercrossing 11 inbreds and their progenies were selected for disease resistance and agronomic traits. PI 209135 (Mayorbela) is a synthetic of tropical origin. Forty phenotypically different homozygous inbreds from PI 209135 were evaluated for resistance to races 1, 2, and 3 of Exerohilum turcicum (Pass.) Leonard and Suggs (southern corn leaf blight), Bipolaris maydis (Nisik) Shoemaker = Helminthosporium maydis Nisik (southern leaf blight), Erwinia stewartii (E. F. Smith) Shoemaker = Erwinia stewartii (E. F. Smith) (Berk.) Sacc. (Diploicapsa, dwarf mosaic virus (MDMV) and maize enation virus (MCDV). These are the major pathogens of maize in the United States. Twenty PI 209135 selections resistant to some of these pathogens were crossed with corn belt inbreds. From these crosses, PI 209135 and the PI 209135 selections were selected for disease resistance and combining ability. Maturity classification is AES300.