REGISTRATION PARTENTAL LINES

Plants of SD47 are approximately 180-cm tall, placement approximately 80-cm above the ground. They are dark green in appearance and have small tassels and red cobs. Ears are about 15.0-cm long and are borne on 7.0-cm shanks. There are from 14 to 16 rows of kernels on each cob. The line has good vigor, ear fill, root strength, husk looseness, and excellent stalk strength.

All three lines are resistant to Northern Corn Leaf Blight [incited by Exserohilum turcicum (Pass.) Leonard and Suggs] and Diplodia stalk rot [incited by Diplodia zea Poly Sp. Sacc.].

REGISTRATION OF 18 SORGHUM PARENTAL LINES

The Iowa Agriculture and Home Economics Experiment Station released 18 sorghum [Sorghum bicolor (L.) Moench] inbreds (Reg. no. PL-189 to PL-206) (PI 533623) as germplasm in March 1989. All inbreds have potential to produce competitive hybrids for central and southern South Dakota.

Plants of SD47 are approximately 180-cm tall, placement approximately 80-cm above the ground. They are dark green in appearance and have small tassels and red cobs. Ears are about 15.0-cm long and are borne on 7.0-cm shanks. There are from 14 to 16 rows of kernels on each cob. The line has good vigor, ear fill, root strength, husk looseness, and excellent stalk strength.

All three lines are resistant to Northern Corn Leaf Blight [incited by Exserohilum turcicum (Pass.) Leonard and Suggs] and Diplodia stalk rot [incited by Diplodia zea Poly Sp. Sacc.].

Plants of SD45 are approximately 180-cm tall, placement approximately 80-cm above the ground. They are dark green in appearance and have small tassels and red cobs. Ears are about 15.0-cm long and are borne on 7.0-cm shanks. There are from 14 to 16 rows of kernels on each cob. The line has good vigor, ear fill, root strength, husk looseness, and excellent stalk strength.

REGISTRATION OF SD45, SD47, AND SD48 PARENTAL LINES OF MAIZE

SD45 (Reg. no. PL-133, PI 533661), SD47 (Reg. no. PL-134, PI 533662), and SD48 (Reg. no. PL-135, PI 533663) are parental lines of maize developed at the Agricultural Experiment Station, South Dakota State University, Brookings. These lines were evaluated for agronomic performance and in hybrid combinations for yield and moisture. SD45, SD47, and SD48 were released in March 1987 because of their potential to produce competitive hybrids for central and southern South Dakota.

SD45, SD47, and SD48 were derived by selfing individual plants from the crosses SDp232 X H96, SDp309 X SD30, and the hybrid Pioneer brand 3710, respectively. All three inbreds were selfed for 7 generations with selection for desirable plant, ear, and root traits. All three inbreds are A1 cytoplasmic, with fertility restoration in crosses involving other male-sterility inducing cytoplasms.

Breeder seedstocks are maintained by South Dakota Foundation and year data are available upon request. Foundation Seeds and can be obtained in quantities (50 kernels) from South Dakota State University Foundation Seeds, Box 2125, Brookings, SD 57007.

Z. W. WICKS, III,* AND M. L. CARSON, H. RAHMAN, AND G. G. SCHOLTEN (2)


REGISTRATION OF 18 SORGHUM PARENTAL LINES

Plants of SD47 are approximately 180-cm tall, placement approximately 80-cm above the ground. They are dark green in appearance and have small tassels and red cobs. Ears are about 15.0-cm long and are borne on 7.0-cm shanks. There are from 14 to 16 rows of kernels on each cob. The line has good vigor, ear fill, root strength, husk looseness, and excellent stalk strength.

All three lines are resistant to Northern Corn Leaf Blight [incited by Exserohilum turcicum (Pass.) Leonard and Suggs] and Diplodia stalk rot [incited by Diplodia zea Poly Sp. Sacc.].

SD45 and SD48 have good combining ability, while SD47 has good combining ability with A619, SD47 X A619, and SD48 X A632 produced 5-yr average yields of 8.36 Mg ha~', 7.53 Mg ha~', respectively, as compared to 8.04 Mg ha~' for Pioneer brand 3901 and 3732 when tested at Brookings, SD. They produced 5-yr yield of 11.00, 8.16 and 8.72 Mg ha~', respectively, as compared to 8.66 and 8.44 Mg ha~' for Pioneer brand 3901 and 3732 when tested at Beresford, SD. Location and year data are available upon request.

Breeder seedstocks are maintained by South Dakota Foundation Seeds and can be obtained in quantities (50 kernels) from South Dakota State University Foundation Seed, Box 2125, Brookings, SD 57007.

Z. W. WICKS, III,* AND M. L. CARSON, H. RAHMAN, AND G. G. SCHOLTEN (2)


REGISTRATION OF 18 SORGHUM PARENTAL LINES

Plants of SD47 are approximately 180-cm tall, placement approximately 80-cm above the ground. They are dark green in appearance and have small tassels and red cobs. Ears are about 15.0-cm long and are borne on 7.0-cm shanks. There are from 14 to 16 rows of kernels on each cob. The line has good vigor, ear fill, root strength, husk looseness, and excellent stalk strength.

All three lines are resistant to Northern Corn Leaf Blight [incited by Exserohilum turcicum (Pass.) Leonard and Suggs] and Diplodia stalk rot [incited by Diplodia zea Poly Sp. Sacc.].

SD45 and SD48 have good combining ability, while SD47 has good combining ability with A619, SD47 X A619, and SD48 X A632 produced 5-yr average yields of 8.36 Mg ha~', 7.53 Mg ha~', respectively, as compared to 8.04 Mg ha~' for Pioneer brand 3901 and 3732 when tested at Brookings, SD. They produced 5-yr yield of 11.00, 8.16 and 8.72 Mg ha~', respectively, as compared to 8.66 and 8.44 Mg ha~' for Pioneer brand 3901 and 3732 when tested at Beresford, SD. Location and year data are available upon request.

Breeder seedstocks are maintained by South Dakota Foundation Seeds and can be obtained in quantities (50 kernels) from South Dakota State University Foundation Seed, Box 2125, Brookings, SD 57007.

Z. W. WICKS, III,* AND M. L. CARSON, H. RAHMAN, AND G. G. SCHOLTEN (2)