REGISTRATION OF SD40 PARENTAL LINE OF MAIZE

SD40 (Reg. no. PL-75) is a yellow dent maize (Zea mays L.) parental line developed at the Agricultural Experiment Station, South Dakota State University, Brookings, SD. This line was evaluated for agronomic performance and in hybrid combination for yield and moisture. SD40 was released in March 1985 because of its potential to produce competitive hybrids for central and southern South Dakota.

SD40 was derived by selfing an individual plant of Pioneer Hybrid 3709. Selfing was practiced for eight generations with selection for desirable plant, ear, and root traits. SD40 was evaluated for 3 yr at Brookings and would be considered intermediate to late flowering because it silked 2 days after A632, 4 days after A619, 11 days after CM105, and 15 days after A654.

Plants are approximately 120-cm tall with ear placement approximately 75-cm above the ground. It is light green in color. The plant is moderately strong and has an average of 12 to 14 rows of medium size kernels on each cob. Moisture content of the seed generally has been about 20% 60 days after pollination. It has good resistance to northern corn leaf blight [Corynespora cassiicola (Berk.) Sacc.], Diplodia stalk rot [Diplodia maydis (Berk.) Sacc.], Sclerotinia ear rot [Sclerotinia zeae (Berk.) Desm.], and ac-ceptable resistance to Diplodia stalk rot [Diplodia maydis (Berk.) Sacc.]. Breeder seedstocks are maintained by South Dakota Foundation Seeds and can be obtained in quantities (50 kernels) from South Dakota Foundation Seed, Box 2125, Brookings, SD 57007.

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References and Notes

1. Assistant professors, respectively, and senior agricultural research technician by the Crop Sci. Soc. of Am. Accepted 30 May 1985. SD40 has good resistance to northern corn leaf blight [Exserohilum turcicum (Pass.) Leonard & Suggs] and acceptable resistance to Diplodia stalk rot [Diplodia maydis (Berk.) Sacc.]. Breeder seedstocks are maintained by South Dakota Foundation Seeds and can be obtained in quantities (50 kernels) from South Dakota Foundation Seed, Box 2125, Brookings, SD 57007.

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