than 'S-208', a commercially grown cultivar developed by Seedtec International, Woodland, CA. In Montana and North Dakota, the average number of days to maturity for Oker is 117 days. Oker matures 4 to 5 days earlier than S-208. Mature plants of Oker are similar in height to S-208, and have greater resistance to Alternaria leaf spot and bacterial blight. Seeds are lower in test weight than S-208, averaging 1.0 kg hL⁻¹ less in nine tests conducted at Sidney and Williston over a 3-yr period.

The seed oil content of Oker is similar to S-208 under dryland conditions but 2.8% higher under irrigated conditions. Oker is 2% higher in seed protein content and 5% lower in seed hull percentage than S-208. The oil iodine number of Oker is similar to S-208 but its oil averaged 2.3% less in linoleic acid. Oker has a smaller seed size than Hartman, averaging 1 mm less in width and 2 mm less in length. The seed yield and oil percentage of Oker over the 3-yr period averaged 1755 kg ha⁻¹ and 45.0% respectively. The seed yield and oil percent of S-208 during the same period averaged 2071 kg ha⁻¹ and 44.5%, respectively.

Oker was released for irrigated production in eastern Montana and western North Dakota, and for production under conditions where maturity is a factor such as delayed planting and in areas with shorter growing seasons. Its production reduces the risk of yield loss due to early fall frosts and the diseases Alternaria leaf spot and bacterial blight.

Breeder seed will be maintained by the Eastern Agricultural Research Center, P.O. Box 393, Sidney, MT 59270. The Montana Agricultural Experiment Station has applied for protection of this variety under the provisions of the Plant Variety Protection Act with the certification option.

C. D. Nickell, C. Moots, T. Mathis, and G. Stallknecht (1)

References and Notes

1. Professor of plant genetics, graduate research associate agronomist, Dep. of Agronomy, and research USDA-ARS, Dep. of Plant Pathology, Univ. of Illinois, Urbana-Champaign, IL 61801. Registration by the Crop Sci. Soc. of Amer. Accepted 10 June 1985.

REGISTRATION OF 'LEFLORE' SOYBEAN

'LEFLORE' soybean [Glycine max (L.) Merr.] (Reg. no. 186) was developed by the USDA-ARS, in cooperation with the Delta Branch of the Mississippi Agricultural Experiment Station and the West Tennessee Agricultural Experiment Station, and released in 1984 to provide a productive cultivar of Group III maturity with resistance to race 4 of the soybean cyst nematode (SCN) Heterodera glycines Ichinohe. The breeding line designation was D77-6166.

Leflore is similar in maturity and growth to 'Corsoy 79', but differs from Centennial in that it is resistant to race 4 of SCN. It has a determinate growth habit, purple flowers, tawny pubescence, and tan pod walls. Seeds are yellow with black hila. It is resistant to races 3 and 4 of SCN; bacterial pustule, caused by Xanthomonas phaseoli (E. F. Smith) Dowson; and to aerial blight, caused by Diaporthe phaseolorum (Kofoid and White, 1919) Chitwood. It is susceptible to Alternaria leaf spot, caused by Alternaria alternata (Ell.) Sacc. caulivora Athow & CaldB.; and to stem canker, caused by Diaporthe phylloxyphila [Pers.] (Kuntze) Ell.) Sage, and by Rhizoctonia solani Kuehn. It can be seeded at 20-24 cm (8-9 in) spacing. Leflore has a higher yield potential than 'Corsoy 79'; in combination with 'Corsoy 79', Hack has 3% greater seed yield, better lodging resistance, and 0.5 percentage units higher oil.

Hack originated as an F₄ plant selection at the Illinois Agricultural Experiment Station. It was released in 1984 because of its superiority in yield and lodging resistance to cultivars of similar maturity. It was selected from the cross 'Forrest' X (D68-18 X PI 88788). J74-47 was an SCN race 4 resistant line selected from the cross 'Forrest' X (D68-18 X PI 88788).

Breeder seed of Hack was distributed to organizations in Illinois, Indiana, Iowa, Ohio, and Wisconsin in 1984. Breeder seed will be maintained by the Eastern Agricultural Research Center, P.O. Box 393, Sidney, MT 59270. The Montana Agricultural Experiment Station has applied for protection of this variety under the provisions of the Plant Variety Protection Act with the certification option.

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Reference and Notes