REGISTRATION OF CROP CULTIVARS

1978 for possible release in 1979. Hodgson '78 is a Protected Variety, Certificate 780005, and may be sold only as a class of certified seed. The Minnesota Agricultural Experiment Station will be responsible for maintenance of breeder seed. Other information on Hodgson 78 is published in Varietal Trials of Farm Crops (Miscellaneous Report 24, Agricultural Experiment Station, St. Paul, MN 55108).

REGISTRATION OF MCALL SOYBEAN\(^1\)
(Reg. No. 124)

J. W. Lambert and B. S. Kennedy\(^2\)

'McCall' soybeans [Glycine max (L.) Merr.], developed by the Minnesota Agricultural Experiment Station originated as an \(F_2\) plant selection from the cross M433 \(\times\) 'Hark'. M433 was derived from 'Acme' \(\times\) 'Chippewa'. Before its release McCall was identified by the experimental designation M65-217. It is of Group 0 maturity, maturing about 4 days later than 'Portage' and 1 day earlier than 'Altona'. It will be most useful in northern Minnesota (47° to 49° N Lat) and in areas of comparable climate in other states and in Canada.

Distinguishing characteristics of McCall are purple flowers, gray pubescence, yellow cotyledons, dull yellow seed coats, and yellow hila. The canopy is medium in width and the leaves are medium green. Stems and pods are brown at maturity. McCall has medium plant height and good resistance to lodging. In comparison with Altona, it has smaller seeds that are higher in percentage of oil and lower in percentage of protein. In regional testing McCall has outyielded Altona by about 10%. McCall shows low to moderate amounts of chlorosis on high-lime soils, but it is susceptible to phytophthora rot caused by Phytophthora megasperma var. sojae.

Seed of McCall was released to certified growers in Minnesota and North Dakota in 1978. The Minnesota Agricultural Experiment Station will be responsible for maintenance of breeder seed. Other information on McCall is published in Varietal Trials of Farm Crops (Miscellaneous Report 24, Agricultural Experiment Station, St. Paul, MN 55108).


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REGISTRATION OF SULLIVAN WHEAT\(^1\)
(Reg. No. 615)


'Sullivan' soft red winter wheat (CI 17,684), developed at the Purdue University Agricultural Experiment Station in cooperation with AR. SEA, USDA, was released in 1977. It was tested in Indiana and regionally as Purdue 68283A1-11 before it was named.

Selection among lines in \(F_2\) was based on single-plant selection. Selection among lines in \(F_3\) was based on resistance to leaf rust, powdery mildew (incited by Erysiphe graminis (Pers.) Rostr.) and Hessian fly (Mayetiola destructor Say). Sullivan is the progeny of one \(F_2\) plant following the backcross. Yield potential, straw strength, plant height, and winterhardiness were evaluated in replicated trials without further selection in the \(F_4\) to \(F_6\) generations, 1972-1976. Sullivan was selected for tolerance to the pink eye disease (incited by Gaeumannomyces graminis (Sacc.) E. graminis) and resistance to naturally infested field soils at two locations in Indiana in 1975 and 1976. Breeder seed was in the process of selfing after the final backcross.

Sullivan is similar to 'Oasis' in most characters, notably in heading in early July, in heading before 'Altona' in the regional trials without further selection in the \(F_4\) to \(F_6\) generations, 1972-1976. Sullivan has resistance to races 15B, 29, 38, and 56 of P. graminis in field nursery tests and has derived resistance to races 5, 15, 35, 76, 104, and UN9 of P. recondita during its selection, and new naturally occurring races in 1976 and 1977 after the backcross.

Sullivan possesses the single-gene dominant resistance to the leaf rust disease derived from Bulgaria 89-9-2-2 parent. Presumably, it has \(H_2\) derived from other parents. Sullivan is resistant to the powdery mildew disease during its selection.

Sullivan possesses a valuable moderate resistance to all root rot diseases. It has been free from leaf blight disease derived from Bulgaria 89-9-2-2 parent. Presumably, it has \(H_2\) derived from other parents. Sullivan has resistance to Hessian fly conferred by the \(H_2\) genetic factor derived from 'Ribeiro' via the Pnrdne 6028 A2 parent. Presumably, it has \(H_2\) derived from other parents. Sullivan has been as good or better than 'Oasis' in yield testing and better in test weight.

Sullivan is a Protected Variety, Certificate 770005, and may be sold only as a class of certified seed. The Purdue University Agricultural Experiment Station, West Lafayette, IN 47907, is maintained by the Purdue University Agricultural Experiment Station.