Registration of Crop Varieties

Registration of Decatur Barley
(Reg. No. 88)
R. M. Caldwell, L. E. Compton, F. L. Patterson, and J. F. Schafer

'Decatur' (Hordeum vulgare L., emend Lam.), CI 10546, was released in 1960 to provide a winter barley for Indiana with superior straw strength. Decatur is 6-rowed, smooth-awned, mid-tall, and midseason to late in maturity. The outstanding characteristic of Decatur is its ability to resist straw breakage and to remain standing after maturity. Decatur's yielding capacity, test weight, and winter hardiness are similar to those of the better varieties adapted to Indiana. Decatur is resistant to scald, moderately resistant to leaf rust and net blotch, but susceptible to loose smut. Its ability to withstand high winter temperatures and to remain standing after maturity make it the best barley adapted to Indiana. Decatur was developed by the authors at the Purdue University Agricultural Experiment Station in cooperation with the Crops Research Division of the U.S. Dept. of Agriculture. The parentage is 'Short Comfort' (CI 5907) X Purdue 1101 (CI 4582) 3 X 'Wisconsin Barbless' (CI 5105) 2 X 'Chevron' (CI 1111) X 'Bolivia' (CI 1257) 4 X 'Kentucky 1' (CI 6050) X Purdue 400-17. The final cross was made in 1943, and the final selection in the F_{31} generation in 1954. Decatur was tested under the registration number Purdue 432A-1-2-4-17-2, and was distributed in 1963 to provide a winter barley for Indiana. More detailed information is available in Purdue Research Bulletin 768, and USDA Technical Bulletin 1224.3

Breeder seed is maintained by the Purdue University Agricultural Experiment Station. Other seed classes permitted under Indiana standards are: foundation, registered 2 and certified, limited to one year for each class, with standard restrictions, plus isolation of 40 rods from all other barley for the registered classes.

Registration of Goodfield Oats
(Reg. No. 198)
H. L. Shands, P. E. Pawlisch and Z. M. Arawinko

'Goodfield,' Avena sativa L., C.I. 7266, is of hybrid origin and developed from a series of crosses made at the Wisconsin Agricultural Experiment Station. It was first released for commercial production in 1959 after a program of simultaneous breeding and rapid increase soon after the final cross was made. 'Hawkeye' X 'Victoria,' was made in 1935, and 'Hawkeye' X 'Victoria,' was made in 1936. After the first cross was grown, several years were allowed for selecting for crown rust resistance and desirable type. A plump-kerneled selection X216-17 (C.I. 5012) showed good resistance to rust and Helminthosporium victoriae M and M rusts isolated. This selection is from the same cross as parents of 'Beebee.' The Hawkeye-Victoria selection with Helminthosporium susceptible Garry (C.I. 4801), progeny, X216-5-2, showed only moderately good resistance and was selected for crown rust resistance and desirable type. Goodfield X241-5-2 was selected for crown rust and H. victoriae resistance and good standability. These objectives were accomplished by selecting plants with stiff and shorter straw than the 'Clintland' was crossed with X241-5-2 (C.I. 6772) in generations grown in the field and greenhouse for resistance to rusts, smuts and for better grain type. The final selection of Goodfield was made in the F_{31} generation.

Yield testing began in Wisconsin in 1956. Goodfield was in late July, and planted as a later summer crop that produced at a rate of 44 bushels per acre. A partial increase was further increased by W. H. Chapman, Florida. Seed was returned and sown in 1957 and 1958. The harvested seed was distributed in 1959 and 1960.

Yields of Goodfield were in the lowest quartile of Central nurseries (4,5,6) and have been near the Wisconsin tests (10,11). Goodfield made very poor showings on sandy soils of Hancock and Spooner, indicating a nearly competitive strain in sandy soils. Seed was returned and sown in 1957. About 25 bushels were available for sowing at the Arlington Farm in May 1965. Goodfield received a late increase was further increased by W. H. Chapman, Florida. Seed was returned and sown in 1957 and 1958. The harvested seed was distributed in 1959 and 1960.

Registration of Harrison Barley
(Reg. No. 89)
R. M. Caldwell, L. E. Compton, F. L. Patterson, and J. F. Schafer

'Harrison' (Hordeum vulgare L., emend Lam.), CI 10667, was distributed in 1963 to provide a winter barley for Indiana with exceptionally stiff straw combined with other outstanding performance characteristics. Harrison has a dense spike, is 6-rowed, rough-awned, mid-tall, and midseason in maturity. Its ability to withstand high winter temperatures and to remain standing after maturity make it the best barley adapted to Indiana. Harrison was developed by the authors at the Purdue University Agricultural Experiment Station in cooperation with the Crops Research Division of the U.S. Dept. of Agriculture. The parentage is 'Short Comfort' (CI 5907) X 'Promising' (C.I. 4581) 2 X 'Bolivia' (CI 1257) X 'Chevron' (CI 1111) X 'Kentucky 1' (CI 6050) X Purdue 400-17 4 X 'Wong' (CI 6728) X Harrison. The final cross was made in 1946, and the final selection in the F_{31} generation in 1955. Harrison was tested under the registration number Purdue 466A-17-15-6, was distributed to Indiana Certified Seed producers in the fall of 1960, and was in its first year of commercial production in Indiana during the 1964 crop season. More detailed information is available in Purdue Research Bulletin 801.3

Breeder seed is maintained by the Purdue University Agricultural Experiment Station. Other seed classes permitted under Indiana certification standards are: foundation, registered 2 and certified, limited to one year for each class, with standard restrictions, plus isolation of 40 rods from all other barley for the registered classes.

Published July, 1966