REGISTRATION OF CROP CULTIVARS

'Tippecanoe,' CI 7676, 'Putnam 61,' 'Albion,' and 'Clintland 64.' Noble is essentially a Tippecanoe type with improved yielding ability and improved tolerance to the yellow dwarf virus disease. The new variety was selected by the modified pedigree method. The final selection was made in the F2 generation. Noble seed was in the F3 generation in 1975. Noble has been tested in replicated yield trials in Indiana since 1968 and in the Regional Uniform Midseason Oat Performance Nursery since 1969.

The new variety has outstanding yielding ability and excellent resistance to pretriage and postriple lodging. Noble is moderately tolerant to yellow dwarf virus. It is resistant to races of loose smut currently prevalent in Indiana. Noble has resistance to most of the older races of crown rust and stem rust but is susceptible to the predominant newer races. Groat protein content of Noble is moderately high (17.5 to 18.5%), subjects to environment and fertility level.

Noble matures 1 to 2 days later and is 5 cm shorter than Tippecanoe. The coleoptile is white (lacks pigment). Culms are generally erect, although they bow somewhat at the base. The flag leaf is generally upright. The first leaf below the flag leaf is generally drooping. Leaf margins are glabrous; culms are yellow and ligules are very prominent and wrap tightly around the culm. Average flag leaf length, flag leaf width, panicle width, and panicle length are 10.7 cm, 13.5 mm, 8.0 cm, and 12.5 cm, respectively. The panicle form is equilateral; branches are short and ascending and arise at the lower rachis node. The rachis is flexuous. Awns are absent or few, 0 to 17 mm long, and straight. The lemma is brownish-yellow, and does not fluoresce. The length of the lemma averages 12.0 mm. The lemma extends 2 to 3 mm beyond the groat. Grains are distinctly short, plump, and well-filled, and have a relatively low percentage of hull.

Breeder seed will be maintained by the Purdue University Agricultural Experiment Station, West Lafayette, IN 47907.

Variety protection has been applied for under the Plant Variety Protection Act, Public Law 91-577, in accordance with the certified seed option.

REGISTRATION OF MARSHFIELD TREFOLI
(Reg. No. 18)

W. H. Billings and S. L. Swanson

'MARSHFIELD' big trefoil (Lotus pedunculatus Cav.), was released in 1971 by the Soil Conservation Service, Plant Materials Center, Corvallis, Ore., in cooperation with the Oregon State University Agricultural Experiment Station, the Washington State University Agricultural Experiment Station, and the ARS, USDA.

It was developed by mass selection and roguing of plants from PI 48686, introduced from New Zealand in 1919.

It is semierect, comparatively glabrous, and has distinctive reddish coloration on the stems and leaf margins. It was selected, in comparison with five other varieties, for superiority in forage yield, seed yield, persistence, and resistance to Walshia species moth larvae. It produces heavy seed crops and is moderately resistant to seed shattering. Plants are very uniform as a result of mass selection and roguing.

Marshfield was released primarily for use on specific sites west of the Cascades. It is a more productive big trefoil for pasture on soils that are wet for long periods, including fine textured soils, and on upland sites in the coastal area as well.

Seed yields at the Corvallis Plant Materials Center for a 3-year period, 1967 to 1969, averaged 594 kg/ha.

Breeder and foundation seed will be maintained by the Soil Conservation Service, Corvallis Plant Materials Center. Foundation seed was first available in 1971. Foundation, certified, and foundation seed are available.

REGISTRATION OF RACINE WINTER WHEAT
(Reg. No. 543)

H. L. Shands, R. G. Shands, Z. M. Arawinko, and W. H. Billings

'RACINE' (CI 18572) is a soft red winter wheat (Triticum aestivum L. em. Thell., spp. vulgare (Vill., Hoc) Desf.), released by the Wisconsin Agricultural Experiment Station, following official testing for varietal identity in 1956 (1). The parents were W. H. Billings, Reg. No. 29408-AI-16-2-8-4/Kansas 500. The first parent was a selected progeny from Kansas 500, while the second parent was from the USDA, Reg. No. 171-6. The first parent was selected progeny from Kansas 500, while the second parent was from the USDA, Reg. No. 171-6. The parents were W. H. Billings, Reg. No. 29408-AI-16-2-8-4/Kansas 500. The first parent was selected progeny from Kansas 500, while the second parent was from the USDA, Reg. No. 171-6.

Representative performance data of Racine indicate that it is a red winter wheat variety collected from several farms in Wisconsin were summarized previously (3, 6). In 1964 and 1965, Racine occupied 38.2 and 35.3%, respectively, or three out of all wheat hectares in Wisconsin (3, 6). In 1964 and 1965, Racine occupied 38.2 and 35.3%, respectively, or three out of all wheat hectares in Wisconsin (3, 6). In 1964 and 1965, Racine occupied 38.2 and 35.3%, respectively, or three out of all wheat hectares in Wisconsin (3, 6).

Racine is midtall to tall, and is of medium strength. Racine is winter-hardy and has been grown successfully in all parts of Wisconsin. Racine is resistant to most races of leaf rust, is moderately resistant to bunt and powdery mildew, and is resistant to loose smut fungus in F2, F3, and F4 generations. An F3 seed was in an F2 batch that became Racine. Racine has been in Wisconsin yield trials from 1952 to 1959.

Milling and baking tests of Racine at the USDA Soft Wheat Nursery Test from 1958 to 1960, respectively, were summarized previously (3, 6). In 1964 and 1965, Racine occupied 38.2 and 35.3%, respectively, or three out of all wheat hectares in Wisconsin (3, 6).

Milling and baking tests of Racine at the USDA Soft Wheat Nursery Test from 1958 to 1960, respectively, were summarized previously (3, 6). In 1964 and 1965, Racine occupied 38.2 and 35.3%, respectively, or three out of all wheat hectares in Wisconsin (3, 6).

Three years after distribution in 1959, Racine is now one of the most frequently grown red winter wheats in Wisconsin (3, 6). In 1964 and 1965, Racine occupied 38.2 and 35.3%, respectively, or three out of all wheat hectares in Wisconsin (3, 6).

Racine is resistant to some races of leaf rust, such as 'Blackhawk,' it has a softer kernel texture, finer flour, lower flour yield, weaker mixogram pattern, and lower protein content. The cookie diameter was satisfactory.

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