REGISTRATION OF FORTUNA WHEAT\(^1\)

(Reg. No. 461)

K. L. Lebsock, W. B. Noble, and L. D. Sibbett\(^2\)

‘Fortuna’ \((Triticum aestivum \ L. \ em. \ Thell.)\) C.I. 13590, is a solid-stemmed, hard red spring wheat developed cooperatively by the North Dakota Agricultural Experiment Station and the Crops and Entomology Research Divisions, Agricultural Research Service, U.S. Department of Agriculture. This variety was released jointly by the North Dakota and Montana Agricultural Experiment Stations and the Crops and Entomology Research Divisions, Agricultural Research Service, U.S. Department of Agriculture, on May 15, 1966. It is recommended for production in those areas where the wheat stem sawfly, *Cephus cinctus Nort.*, is an important wheat pest.

Fortuna was selected from the cross ‘Rescue’-‘Chinook’ \(\times\) ‘Frontana’ \(\times\) ‘Kenya 58’-‘Newhatch’, made in North Dakota in 1956. The Rescue-Chinook parent was obtained from the Canadian Department of Agriculture, Research Station at Lethbridge, Alberta, and the male parent, Minnesota selection II-50-17, was obtained from the USDA-Minnesota wheat improvement project. Fortuna (selection 60-54) was selected and bulked as an \(F_2\) row and entered in preliminary yield trials in North Dakota in 1961.

Fortuna has spring growth habit. It has a white, solid, mid-tall stem which tends to nod below the base of the spike. The spike is fusiform to oblong, awnless to apically awnleted, with awns as long as 5 cm. The glumes are glabrous, midlong, and midwide, and they have square shoulders and short, midwide beaks. The kernels of Fortuna are red, vitreous, midlong, and oval with a midwide crease and a midlong brush.

In 3 years of testing in the sawfly-infested areas of North Dakota and Montana, Fortuna has exceeded currently recommended sawfly-resistant varieties by about 8 to 10 bushels per acre (6.96 to 8.7 hl/ha) in grain yield and 1 to 2 pounds per bushel (1.3 to 2.6 kg/ha) in test weight. Other advantages of Fortuna are early maturity, excellent resistance to leaf rust, and satisfactory resistance to prevalent races of stem rust. It is similar to Rescue in stem solidity and resistance to the sawfly. It is susceptible to pseudo-black chalk.

The milling and baking characteristics of Fortuna are satisfactory. This variety has exceeded Rescue in test weight, protein content, flour yield, absorption, and loaf volume. It is classified as a medium-strength wheat.

The generations of Fortuna for the production of certified seed are breeder, foundation, registered and certified. The North Dakota Agricultural Experiment Station will maintain breeder seed of Fortuna. A description of Fortuna has been published in the *North Dakota Farm Research Bimonthly Bulletin*. 24(5):9-14. May-June, 1966.

REGISTRATION OF CHRIS WHEAT\(^1\)

(Reg. No. 462)

R. E. Heiner and D. R. Johnston\(^3\)

‘Chris’ \((Triticum aestivum \ L. \ em. \ Thell.)\) C.I. 13751, is a hard red spring wheat selected from a cross of ‘Frontana-Thatcher’ \(\times\) (‘Kenya 58’-‘Newhatch’ \(\times\) ‘ Thatcher’) made in 1955 by E. R. Ausemus at the Minnesota Agricultural Experiment Station. It was first entered in yield trials in 1956 as Minnesota N.S. No. II-53-525. In 1960, it was included in the Uniform Regional Nursery and assigned C.I. 13406. First-year tests showed that this line was damaged by a head and stem blackening complex similar to black chalk. Head row selections resistant to the blackening were made in 1961, and the seed was increased in Mexico during the winter of 1961-62. In 1962, the selected strain, designated as II-33-52-1, was entered in the Uniform Regional Nursery and assigned C.I. 13751. No evidence of head blackening has been observed in the 4-year period 1962-1965.

Chris is resistant to the prevalent races of stem rust and to some of the virulent isolates found in low frequency in the stem rust survey. It is also resistant to black chalk, prevalent races of leaf rust, and moderately resistant to bunt. The test weight of this variety is very good, averaging 1 lb/bu (1.3 kg/ha) heavier than Crim and 1.5 lb/bu (1.9 kg/ha) heavier than Justin. Yields in Minnesota have also been very good, as this variety has averaged 180 lb/acre (256 kg/ha) more than Crim and 300 lb/acre (456 kg/ha) more than Justin. ‘Pennina’, ‘Selkirk’ over the past 4 years. Milling and baking characteristics of Chris are satisfactory.

Morphological characteristics of Chris have been described as follows: plant spring habit, midseason, midtall; moderately stiff straw; spike awnleted, fusiform, middense, inclined; glumes glabrous, white, midlong, wide, small keel extend from base to beak; shoulders midwide, rounded; beaks midwide, acute, 1 mm long; awnlets white, 1 to 10 mm long; kernels red, short, hard, ovate; germ midsize; crease midwide, middeep; checks rounded; brush midsize, short.

Seed of Chris wheat was distributed to Minnesota, North Dakota, and South Dakota seed producers in the spring of 1965. Breeder seed will be maintained by the Minnesota Agricultural Experiment Station.

\(^1\) Registered by the Crop Science Society of America. Cooperative investigations of the Crops Research Division, Agricultural Research Service, United States Department of Agriculture, and the Minnesota Agricultural Experiment Station. Published with approval of the Director of the Minnesota Agricultural Experiment Station as Paper No. 6110. Received Jan. 20, 1967.

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**CORRECTIONS**

Tables 1 and 3 of the article “Heterosis and Homeoestasis in Rye.II.” by P.L. Pihaler on pages 401-405 of the September-October 1966 issue of *Crop Science* were inadvertently transposed in the printing operation. The material shown under the Table 1 heading should be under Table 3 and vice versa.

The tables are in the proper positions in the reprints that were supplied to the author.

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The article “On the Choice of Tester Parent for the Breeding of Synthetic Varieties of Maize” by J. C. S. Allison and R. N. Curnow in the November-December issue contains two errors. On page 543, the formula near the bottom of column 1 should be

\[ \frac{i}{s} \left\{ p q \left[ a + (q-p)d \right] + a + (Q-P)d \right\} \]

and the second formula in column 2 should be

\[ \frac{4i}{s} \left[ pq \right]^2 \].