REGISTRATION OF YUKON WHEAT1
(Reg. No. 481)

J. A. Wilson and Peter Salm

'YUKON', a hard red winter wheat (Triticum aestivum L. em. Thell.), CI 14583, was developed by DeKalb AgResearch, Inc. and released in 1969. It originated as an F1 head row selection from the backcross: 4*Tascosa'/Norin' derivative. This variety is the result of a program designed to transfer semidwarf genes from Japanese stocks into well adapted, high quality hard red winter wheats. The male parent, introduced by DeKalb for breeding purposes, is a semidwarf, poor quality, nominal yielding winter hardy Norin derivative that is believed to contain 50% hard red winter germplasm.

Yukon is distinguished by the following: plant winter habit, medium early, short to semidwarf; stem white, strong; spike awned, oblong to fusiform, midwide, erect to inclined; glumes glabrous, brown, midlong, midwide; shoulders wide, square to elevated; beaks midwide acuminate, 3 to 4 mm. long; awns light brown, 2 to 7 cm. long; kernels red, midlong, hard, ovate; germ midsized; crease midwide, shallow; cheeks rounded; brush midsized short.

Yukon is resistant to soil-borne mosaic. It is susceptible to leaf rust but is slow-rusting. Although susceptible to mildew, it has a slower build-up of this disease than some hard red winter varieties. It is susceptible to stem rust and bunt, but may be moderately resistant to loose smut since no loose smut infection has been detected under natural field conditions.

The straw of Yukon is short and of good quality but not equal to Satanta and Chanute. The leaves maintain an erect position until heading. The variety has a high yield potential under average fertility and moisture. It is 6 inches shorter and 4 days earlier than Tascosa.

Yukon's primary area of adaptation is western Oklahoma. It is similar to Tascosa in winter hardness. Yukon has extensive fall tillering and an early spring recovery which makes it suitable as a dual purpose forage-grain type in the Southwestern wheat areas.

The grain and flour quality are excellent in meeting hard red winter wheat standards. The grain is hard, has high test weight and produces a high yield of flour with low ash. The flour has strong gluten and high water absorption. Loaf volume and texture are excellent.

DeKalb AgResearch Inc. will be the source of registered seed. Only registered seed can be used in the production of certified seed.

1 Registered by the Crop Science Society of America. Received March 25.
2 Research Agronomists DeKalb AgResearch, Inc., Wichita, Kansas and Billings, Montana, respectively.
3 Authors wish to acknowledge the quality evaluation contributions by R. K. Bequette and L. H. Fischer of the DeKalb Cereal Chemistry Project.

REGISTRATION OF PALO DURO WHEAT1
(Reg. No. 482)

J. A. Wilson and Peter Salm

'PALO DURO', a hard red winter wheat (Triticum aestivum L. em. Thell), CI 14584, was developed by DeKalb AgResearch, Inc. for dual purpose forage-grain type. This variety is the result of a program designed to transfer semidwarf genes from Japanese stocks into well adapted, high quality, hard red winter germplasm.

Palo Duro is resistant to soil-borne mosaic. It is moderately susceptible to leaf rust but is slow-rusting. Although susceptible to mildew, it has a slower build-up of this disease than some hard red winter varieties. It is susceptible to stem rust and bunt, but may be moderately resistant to loose smut since no loose smut infection has been detected under natural field conditions.

The straw of Palo Duro is short and of good quality but not equal to Satanta and Chanute. The leaves maintain an erect position until heading. The variety has a high yield potential under above average fertility and moisture. It is 6 inches shorter and 3 days earlier than Tascosa.

Palo Duro's primary area of adaptation is the Plains of Texas. It is similar to Tascosa in winter hardness. It is an outstanding dual purpose forage-grain type in its area of adaptation.

The grain and flour quality are excellent in meeting hard red winter wheat standards. The grain is hard, has high test weight and produces a high yield of flour with low ash. The flour has strong gluten and high water absorption. Loaf volume and texture are excellent.

DeKalb AgResearch, Inc. will be the source of registered seed. Only registered seed can be used in the production of certified seed.

REGISTRATION OF CREST WHEAT1
(Reg. No. 483)

J. R. Welsh, V. R. Stewart, E. L. Sharp, G. A. Taylor and E. R. Hehn

'CREST' (Triticum aestivum L. em. Thell), CI 178383, is a hard red winter wheat (MT6619) selected from the cross P. I. 178383/P. I. 178382 made in 1961 at the Montana Agricultural Experiment Station. Selection was made for stripe rust resistance and dwarf stature. It is more resistant to prevalent races of stripe rust. All plants of Crest possessed both dominant and recessive genes for resistance to prevalent races of stripe rust. All plants also possessed the major dominant gene of P. I. 178383.

Crest possesses both dominant and recessive genes for stripe rust resistance to prevalent races of stripe rust. All plants have the major dominant gene of P. I. 178383 for stripe rust resistance. The variety is heterogeneous with respect to the three minor, recessive, additive genes. Using monosomics, the three recessive genes have been analyzed for chromosome location. The dominant gene is epistatic to the recessives. Crest is resistant to all prevalent races of stripe rust, including D-5.

Crest is awned with brown glumes. It is about 10 cm shorter than Tascosa and 4 days earlier heading than Cheyenne. It is a hard red winter wheat variety. It is resistant to soil-borne mosaic. It is moderately susceptible to leaf rust but is slow-rusting. Although susceptible to mildew, it has a slower build-up of this disease than some hard red winter varieties. It is susceptible to stem rust and bunt, but may be moderately resistant to loose smut since no loose smut infection has been detected under natural field conditions.

The straw of Crest is short and of good quality but not equal to Satanta and Chanute. The leaves maintain an erect position until heading. The variety has a high yield potential under above average fertility and moisture. It is 6 inches shorter and 3 days earlier than Tascosa.

Crest is resistant to soil-borne mosaic. It is moderately susceptible to leaf rust but is slow-rusting. Although susceptible to mildew, it has a slower build-up of this disease than some hard red winter varieties. It is susceptible to stem rust and bunt, but may be moderately resistant to loose smut since no loose smut infection has been detected under natural field conditions.

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