

OREGON AGRICULTURAL EXPERIMENT STATION
OREGON STATE UNIVERSITY
CORVALLIS, OREGON
and
IDAHO AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF IDAHO
MOSCOW, IDAHO
and
WASHINGTON AGRICULTURAL EXPERIMENT STATION
WASHINGTON STATE UNIVERSITY
PULLMAN, WASHINGTON
and
UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
WASHINGTON, D.C.

NOTICE OF NAMING AND RELEASE OF THE WHITE WINTER WHEAT VARIETY
WEATHERFORD
OR898120

The Oregon, Idaho, and Washington Agricultural Experiment Stations and the United States Department of Agriculture announce the release of the white winter wheat variety.
WEATHERFORD.

Description

Selection OR898120 is a soft white common wheat. It is a semi-dwarf with stiff straw. The spike is awned, fusiform, mid-dense, and nodding. Glumes are glabrous, white, mid-long; shoulders are narrow, acuminate, 2 to 3 mm. Awns are 2 to 7 cm long. The kernels are white, mid-long, soft, elliptical with a small to midsize germ, a narrow, mid-deep crease and rounded cheeks. The brush is small.

Pedigree and History

Selection OR898120 resulted from a top cross involving Malcolm/3/VPM/MOS 951//Hill/4/VPM/MOS 951//2*Hill with VPM/MOS 951//2*Hill being the top cross parent. The cross was made in 1986. The original selection was obtained from F₃ rows which resulted from a single F₂ plant. Additional selections were made in F₃ through F₅ with phenotypically similar F₆ head rows bulked for seed increase and further evaluation. Spikes have been sent to the Crop Improvement program for the generation of breeders seed.

Area of Adaptation

The Selection OR898120 is adapted to the winter wheat growing areas of the Pacific Northwest. However, as noted in the yield data, it has performed better East of the Cascade Mountains.

Selection OR898120 is resistant or moderately resistant to Stripe Rust Puccinia striiformis, Leaf Rust Puccinia recondita, Common Bunt Tilletia caries, Powdery Mildew Erysiphe graminis, Leaf Blotch Septoria tritici, and Columbia Basin Foot Rot or Eyespot Pseudocercospora herpotrichoides. (Table 1) It appears moderately susceptible to Dwarf Bunt, Tilletia controversa. Mixed reactions have been observed to Cephalosporium Stripe, Cephalosporium gramnecium, and Flag Smut, Urocystis agropyri.

Agronomic Traits

Selection OR898120 is similar in heading date to Madsen and later than Stephens. It is also taller than either cultivar, similar in winterhardness response to Stephens and in lodging and agronomic score comparable to both Stephens and Madsen. (Table 2) Selection OR898120 does have superior straw to Madsen in terms of handling the residue.

Yield

Selection OR898120 has been grown in the Elite yield trial nurseries for four years at three locations. In Table 3, it can be observed that OR898120 has yielded more than either Stephens or Madsen during this period at the Rugg's site. It yielded more than Stephens at Corvallis, but less than Madsen. At Moro OR898120 yielded slightly less than Stephens and was superior to Madsen.

In Table 4, results from the Western White Winter Uniform Nursery are provided. When compared with Stephens and Madsen, OR898120 has had the highest yield across experimental sites in Washington, Idaho, and Oregon.

Grain Quality

In Table 5 a-c, the grain, milling, and baking characteristics are provided for OR898120, and compared to Stephens and Madsen. With the exception of sponge cake volume and cake score, where OR898120 is superior, it is similar to the commercial cultivars in other attributes. The quality data are provided by the Western Quality Laboratory located at Pullman, Washington.

Plant Variety Protection will be sought for this cultivar.

<u>R. E. Hutton</u>	8/22/00
Director, Oregon Agricultural Experiment Station	Date
<u>Douglas C. Fennell</u>	10/10/2000
Director, Idaho Agricultural Experiment Station	Date
<u>Ralph P. Caval</u>	9/1/00
Director, Washington Agricultural Experiment Station	Date
<u>Edward B. Knippling</u>	1/17/2001
Administrator, USDA/Agricultural Research Service	Date

Department of
Crop and Soil Science

WHEAT RESEARCH



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TO: Ron Cook, OSU Seed Certification
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Russ Karow, OSU Extension
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Mark Hodges, OWC
Keith Pfeifer, Washington Crop Improvement
Greg Volmer, Washington Foundation Seed
Kathy Stewart-Williams, Idaho Foundation Seed
Greg Lowry, Idaho Crop Improvement

FROM: C. James Peterson *C. Peterson*
Professor, Wheat Breeding and Genetics

RE: Variants in 'Weatherford'

Please amend the variety description for 'Weatherford' to include the following:

Weatherford may contain up to 1 in 10,000 bronze (red or tan) chaff heads in the field and may contain up to 10 red wheat seed per pound in Breeder, Foundation, Registered, or Certified classes.

Please contact me if you have any questions or comments.