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Washington Agricultural Research Center  
Washington State University  
Pullman, Washington

and

Oregon Agricultural Experiment Station  
Oregon State University  
Corvallis, Oregon

and

United States Department of Agriculture  
Agricultural Research Service  
Washington, D.C.

#### RELEASE OF EDWALL (PI477919) SOFT WHITE SPRING WHEAT

The Washington Agricultural Research Center, the Agricultural Research Service, U.S. Department of Agriculture and the Oregon Agricultural Experiment Station announce the joint release of Edwall, PI477919, a semidwarf soft white spring wheat (Triticum aestivum L.) to certified seed growers. Edwall was developed cooperatively by the Washington Agricultural Research Center and the Agricultural Research Service of the United States Department of Agriculture.

Edwall was selection No. 186, K7905209, from the cross: Potam 70/Fielder made at Pullman in 1974. The variety has been in four years' tests in Washington and three years in the Western Regional Spring Wheat Nursery as WA6831. Lines for breeder seed stock were increased in Arizona in the 1983-84 winter. Extensive mass selection and reselection was employed to assure that the breeder seed stock is free of red seed color contaminants.

Edwall is mid-season in maturity. The spike is erect with medium-long awns. Kernels are white, soft and medium-sized. The grain of Edwall has a higher test weight than that of Waverly or Dirkwin. Edwall heads about one day later than Dirkwin and about one day earlier than Waverly. Edwall has been grown at several locations in Washington State under irrigated and non-irrigated tests. Edwall carries a single semidwarf gene derived originally from the Japanese wheat Norin 10. The variety has shown good resistance to lodging and a good combination of height for dryland, high rainfall and irrigated culture.

Edwall carries a favorable combination of resistances to locally prevailing forms of stripe rust (Puccinia striiformis), leaf rust (Puccinia recondita) and stem rust (Puccinia graminis tritici). Its stripe rust resistance appears to combine the race-specific resistance of its Fielder parent with a more durable adult plant resistance derived from the CIMMYT variety, Potam 70. When Fielder specific stripe rust races are present, Edwall shows seedling stage susceptibility, but its adult plant

resistance becomes effective earlier and is a higher type than that of Waverly. It is highly resistant to all stages of the stripe rust race which attacks the soft white club winter wheat Tye. Edwall carries a moderately high level of tolerance to aluminum (acid soil) toxicity like that of Fielder. However, Edwall is moderately susceptible to powdery mildew (Erisiphe graminis), to some races of common bunt (Tilletia caries), and to the hessian fly.

Edwall has yielded higher than comparable soft white spring wheats in most trials in Washington. However, its superiority over Waverly and Dirkwin has not been statistically significant at all locations or years, except in 1980.

Collaborative tests by the United States Department of Agriculture, Agricultural Research Service, Western Wheat Quality Laboratory at Pullman, Washington, have shown Edwall to have satisfactory milling and baking properties.

Edwall is primarily a pastry wheat but will be used in all white wheat flour products. Seed classes of Edwall will be breeder, foundation, registered and certified. The Washington State Crop Improvement Association will maintain breeder and foundation classes of seed. Seed requests should be sent to Washington State Crop Improvement Association, N. 513 Front Street, Yakima, Washington, 98901.

The proposed release date is (April 1), 1985. Each agency involved in the agreement may make news releases as it considers appropriate on or after the release date.

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*6-4-85*

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