IDAHO AGRICULURAL EXPERIMENT STATION
Moscow, Idaho

Announces the release of

JEROME
Hard red spring wheat

'Jerome' (Reg. No. CV XXX, PI 632712, NSSL No. 423391) is a hard red spring wheat (*Triticum aestivum* L.) developed by the Idaho Agricultural Experiment Station and released in 2004. Jerome was released for its superior grain yield and baking quality in the intermountain zone of the western United States. Jerome well adapted to both irrigated and rain-fed production systems.

Jerome derived from the 1991 cross, A91197S, at Aberdeen, ID of 'Sunstar II' (PI 559378)/'Westbred 926'. Sunstar II is a hard red spring wheat released by Sunstar Plant Breeding, Twin Falls, ID and derived from a field cross of 'Westbred 906R' (PI 483455) to an unknown second parent. Westbred 926 is a hard red spring wheat, with a proprietary pedigree, developed by Western Plant Breeders, Bozeman, MT. A91197S was advanced in generations using the bulk method in the F_2 to F_4 generations using field plots grown at Aberdeen. In 1994, approximately 200 heads were harvested from short plants in the F_4 bulk population. In 1995, 67 $F_{4:5}$ headrows were planted at Aberdeen and selected for stripe rust resistance (causal organism *Puccinia striiformis* Westend) and short stature. One of those headrows, designated A91197S-9 was advanced to yield testing in 1996 and was evaluated in yield trials in southeastern Idaho for four years (1996 to 1999). In 2000, A91197S-9 was designated IDO566 and entered into the Tri-State Regional Spring Wheat Nursery. IDO566 was advanced to the Western Regional

maturity. Seed of Jerome is red and oval, with a shallow narrow crease similar to Sunstar II. Jerome has large seed, averaging 41 mg per kernel, greater than Jefferson hard red spring wheat (36 mg per kernel), but not significantly different from Westbred 926 (42 mg per kernel). Jerome carries the high molecular weight glutenin alleles *Glu-A1b* (2*), *Glu-B1i* (17+18), and *Glu-D1d* (5+10).

Jerome is an early maturing spring wheat, with an average heading date in Idaho of 172 days after January 1 in 22 field observations from 1998 to 2003. By comparison, Jefferson headed 2 days later ($p<0.01$) and Westbred 936 headed 1 day later ($p<0.05$) than Jerome. Jerome has excellent lodging resistance, similar to Westbred 936. In 21 Idaho yield trials, where lodging occurred, Jerome, Westbred 936, and Jefferson respectively had 17%, 16%, and 29% of plants lodged in a plot (Jerome and Jefferson different at $p<0.01$). In 48 yield trials grown across Idaho from 1998 to 2003, Jerome had an average grain yield 5740 kg ha^{-1}, greater than Jefferson (5460 kg ha^{-1}, $p<0.01$) and Westbred 936 (5477 kg ha^{-1}, $p<0.01$). In the same yield trials, Jerome had an average grain volume-weight of 778 kg m^{-3}, greater than Westbred 936 (769 kg m^{-3}, $p<0.01$), yet less than Jefferson (784 kg m^{-3}, $p<0.05$).

Jerome has resistance to stripe rust comparable to Jefferson. In four years of trials (2000 to 2003) at Pullman and Mount Vernon, WA, stripe rust-caused lesions did not occur on Jerome or Jefferson while the susceptible check cultivar 'Lemhi 66' had an average percent of leaf area covered in lesions that exceeded 50%. Jerome is resistant to Pacific Northwestern US populations of the Hessian fly (*Mayetiola destructor* Say) based on replicated laboratory evaluations of Jerome using Hessian fly populations collected

Seed of Jerome will be maintained by the University of Idaho, Foundation Seed Program and may be obtained by contacting the Foundation Seed Manager, University of Idaho, Kimberly, Idaho. Plant Variety Protection has been applied for with the recognized classes of foundation, registered, and certified seed.

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Director, Idaho Agricultural Experiment Station Date
Moscow, Idaho