Registration of ‘AGS 2000’ Wheat

‘AGS 2000’ soft red winter wheat (Triticum aestivum L.) (Reg. no. CV-913, PI 612956) was cooperatively developed and released by the Georgia and Florida Agricultural Experiment Stations in September 1999. AGS 2000 has a combination of high yield, high test weight, above average milling quality, good disease resistance, and medium maturity.

AGS 2000 was derived from a three way cross, Pioneer Brand ‘2555’/PF 84301/‘Florida 302’ in 1989. PF 84301 (PF 7576/PF 78901/CNT10/BR5) is an experimental line with aluminum tolerance from the National Wheat Improvement Center (EMBRAPA), Passo Fundo, Rio Grande do Sul, Brazil. It has the 1BL.1RS translocation. The F1 was grown in the field as a single row during the 1990 season. The population was advanced thorough the F5 generation by means of the pedigree method of breeding with individual spikes selected for plant type and agronomic characters, including dark shoulders and acuminate beaks. Kernels are red and ovate; the kernel crease is shallow in width and medium in depth. The kernel brush is short; the kernel cheek is rounded. The Milling and Baking quality with above average micro test weight, average softness equivalent, above average flour yield, low flour protein, and average cookie diameter.

In Georgia, AGS 2000 is medium maturing (114 d to heading), awned, white chaffed, blue-greenish plant color, and medium stature (87 cm) at maturity with good straw strength. The spikes of AGS 2000 are erect at maturity, medium size, strap, and awned. The glumes are wide and long with oblique shoulders and acuminate beaks. Kernels are red and ovate; the kernel brush is short; the kernel cheek is rounded. and the kernel crease is shallow in width and medium in depth. The stems and leaf sheaths are blue-greenish color with a waxy bloom. Kernel weight is about 38 mg.

AGS 2000 is resistant to the biotypes E, G, and O of Hessian fly [Mayetiola destructor (Say)], USDA-ARS Crop Production and Pest Control Research Unit, West Lafayette, IN, and to prevalent biotypes in the field present in Georgia and Florida. AGS 2000 is moderately resistant to leaf rust, powdery mildew, and glume blotch. It is moderately susceptible to the soilborne mosaic virus (WSBMV).

Classes of seed production are limited to Breeder, Foundation, and Certified. Breeder seed of AGS 2000 will be maintained by the Georgia Agricultural Experiment Station, University of Georgia, Georgia Station, Griffin, GA 30223-1797. A small sample of seed for research purposes can be obtained from the corresponding author for at least 5 yr. U.S. Plant Variety Protection for AGS 2000 (89482E7) is pending (PVP Certificate no. 200000141).


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Registration of ‘Zak’ Wheat

‘Zak’ soft white spring wheat (Triticum aestivum L.) (Reg. no. CV-914, PI 607839) was developed by the Agricultural Research Center of Washington State University in cooperation with the Agricultural Experiment Stations (AESs) of the University of Idaho and Oregon State University and the USDA-ARS. This variety was named in honor of emeritus professor Dr. C.F. Konzak, who was the spring wheat breeder at Washington State University from 1957 to 1993. Zak was jointly released by the AESs of Washington, Idaho, and Oregon and the USDA-ARS. Zak was released as a replacement for ‘Wawawai’ in the intermediate to high rainfall (<457 mm of average annual precipitation), nonirrigated wheat production regions of Washington State based on its tolerance to the Hessian fly [Mayetiola destructor (Say)], high grain yield and superior end-use quality.

Zak, tested under the experimental designations WA00-7850, W9400154, and K89792, which were assigned through progressive generations of advancement, is a F1 head row selection derived from the cross ‘Pavon S’/‘5/PI 167822/CI 13438 113-6/’Idaeda’/‘Marfed’ 68-5/4/‘Lemhi 66’/3/‘Yaktana 54A’/4/‘Norin 10’/‘Brevor’/6/‘Walladay’/7/PI 5063558/8/‘Trea- sure’. CI 13438 113-6 and Marfed 68-5 were single plant selections, based on plant type, from the original cultivars. The following modified pedigree-bulk breeding method was used to advance early generation progeny. Bulked seed (30 g) from F1 plants was used to establish an F1 field plot. Approximately 100 heads were selected at random from individual F1 plants, and a 40-g subsample of the bulked seed was used to establish a single F1 plot. Seed from the F1 plot was bulk harvested, then a 60-g subsample was used to establish an F3 field plot. Single heads from 150 F3 plants were threshed individually to establish F4 head row families. Following selection for general adaptation, plant height, and grain appearance, seed from 30