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’ (Reg. no. PF 83401/PF 78901/PF 75766) 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 F₁ generation by means of the pedigree method of breeding with individual spikes selected for plant type, from the original cultivars. The F₂ plants was used to establish an F₁ field plot. Approximately 661

Published March, 2002

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 for the 3-yr rotation with the Agricultural Experiment Stations (AESs) of the state trials, grain yield of AGS 2000 was 4488 kg ha⁻¹ as compared with 4224 and 3993 kg ha⁻¹ for Pioneer Brand ‘2684’ and ‘Coker 9835’, respectively. Grain yield weight of AGS 2000 (799 kg m⁻³) is equal to Pioneer 2684 and 51 kg m⁻³ higher than Coker 9835. In comparison with Florida 302, AGS 2000 averaged 4 d earlier in maturity and 1 cm shorter in height. In the USSRWWN, AGS 2000 ranked first in 1999 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 WAI007850, 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/Cl 13438 113-6’/‘Ida’ed’/‘Marfed’ 68-5/4’/Lemhi 66/336’/Yaktana 54A*’/Norin 10’/Brevor’6/’Walladay’/7’/PI 506355/8’/Treasure’. Cl 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 F₂ plot. Seed from the F₂ 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 F₃ head row families. Following selection for general adaptation, plant height, and grain appearance, seed from 30