Due to the unique amylose-free composition of Waxy-Pen starch, several end-use quality traits are dramatically altered. The following mean (± sd) end-use quality traits of ‘Alpowa’ and Waxy-Pen, respectively, were obtained from single replicate samples from Lamont, Lind, Pullman, St. John, and Moses Lake, WA, Western Regional Uniform Cooperative Wheat Nurseries (Alpowa was the check variety for the soft white spring WRN Coop Wheat Nurseries; Penawawa was not included): test weight, 804 (15) and 767 (13) kg m⁻³; Single Kernel Characterization System kernel hardness, 34 (3) and 36 (5); wheat protein, 124 (9) and 128 (11) g kg⁻¹; L-DOPA polyphenol oxidase activity (Anderson and Morris 2001), 1.17 (0.10) and 1.20 (0.23) A₄₇₅; flour yield, 661 (12) and 594 (18) g kg⁻¹; break flour yield, 505 (12) and 445 (14) g kg⁻¹; flour ash, 4.1 (0.2) and 5.4 (0.3) g kg⁻¹; milling score, 78.9 (1.9) and 62.7 (3.2); flour protein, 109 (10) and 116 (13) g kg⁻¹; flour swelling volume, 19.9 (0.6) and 26.5 (0.4) mL g⁻¹; carbonate Solvent Retention Capacity (SRC), 789 (41) and 1166 (75) g kg⁻¹; water SRC, 563 (12) and 723 (18) g kg⁻¹; sucrose SRC, 1063 (57) and 1505 (91) g kg⁻¹; mixograph water absorption, 558 (26) and 625 (15) g kg⁻¹; and cookie diameter, 9.18 (0.27) and 7.72 (0.18) cm. Consequently, Waxy-Pen must be strictly segregated from other soft white wheat grain.

Waxy-Pen received protection under U.S. Plant Variety Protection (PVP Certificate No. 200600005) and has been exclusively licensed to the WSU Research Foundation (WSU RF), 1610 N.E. Eastgate Blvd., Pullman, WA, 99163. Licenses for this cultivar will be available after the expiry of the Plant Variety Protection for research purposes, including development or commercialization of new cultivars.

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References


Registration of ‘FirstStrike’ Slender Wheatgrass

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‘FirstStrike’ slender wheatgrass [Elymus trachycaulus (Link) Gould ex Shinners] (Reg. No. CV-29, PI 643910) was developed by a research team at the USDA-ARS Forage and Range Research Laboratory at Utah State University, Logan, UT, in collaboration with the U.S. Army Engineer Research and Development Center, Hanover, NH. FirstStrike was released on 16 Oct. 2006. In field trial evaluations as part of the Strategic Environmental Research and Development Program (SERDP) project CS-1103 to identify and characterize and develop wear-resistant plant cultivars for use on military training lands, FirstStrike demonstrated high persistence and overall plant vigor in response to herbicides and defoliants. FirstStrike is a multi-origin composite of the best-performing accessions from Colorado and Wyoming. Seedling establishment and persistence of FirstStrike was equal or better than other available cultivars as determined from evaluations on range sites in western portions of the USA.