

Registration of 'Finley' Wheat

'Finley' hard red winter wheat (*Triticum aestivum* L.) (Reg. no. CV-881, PI 586757) was developed by the Agricultural Research Center of Washington State University in cooperation with the USDA-ARS. Finley was released by the Washington Agricultural Research Center for the semi-arid, dryland wheat production regions of Washington state based on its grain yield, superior end-use quality and stripe rust resistance.

Finley (WA007773, N9102104) was selected in the F₅ generation by Edwin Donaldson from the cross 'Weston'/'Hatton' sib/TX69A450-1. It has an awned, brown chaffed, and lax spike with midlong kernels that are elliptical, hard, and red, but Finley may have up to 25 white seeds per kilogram. Seed of Finley has a midsize germ with a midwide, middeep crease, rounded cheeks, and a midsize brush. Finley has winter hardiness less than Hatton but equal to Weston (1989, 1991, Lind, WA, field observations); straw strength greater than Weston and similar to Hatton; and an average heading date in Washington state of 148 d, 2 d earlier than Hatton and similar to Weston.

On the basis of natural field infections from 1991 to 1999, Finley has adult plant resistance to stripe rust (caused by *Puccinia striiformis* Westend.) races that are common in North America. Finley is moderately susceptible to Pacific Northwest races of leaf rust (caused by *Puccinia triticina* Eriks (= *Pucci-*

nia recondita Roberge ex Desmaz. f. sp. *tritici* Eriks. & E. Henn.)] and stem rust (caused by *P. graminis* Pers.:Pers.).

Finley was tested in the Western Regional Hard Winter Wheat Nursery from 1994 to 1998 (53 site years) and had an average yield 113% greater than the long term check 'Wanser'. In the semi-arid regions of Washington state 1992 to 1995 (17 site years), the average grain production of Finley (3400 kg ha⁻¹) was similar to Hatton and Weston (3364 and 3445 kg ha⁻¹, respectively). The average volume weight of Finley is similar to Weston and 8 g L⁻¹ less than Hatton. The average plant height of Finley (91.4 cm) is 2.5 cm taller than Hatton and 2.5 cm shorter than Weston. The coleoptile of Finley is long (114% of Hatton and similar to Weston) and it exhibits excellent emergence from deep (15.3 cm) planting (366 and 125% of Hatton and Weston, respectively).

On the basis of mean values from quality tests conducted by the USDA-ARS Western Wheat Quality Laboratory in Pullman, WA, using grain produced in Washington state from 1992 to 1996, Finley has good milling and baking quality. Compared with Weston, which is considered to have good baking characteristics, Finley has 3.5% greater flour yield (67.3 vs. 65%), 26% longer mix time (3.3 vs. 2.6 min), and similar water absorption (65%) and loaf volume (1030 cm³). Compared with Hatton, which has good milling characteristics, Finley is similar for flour ash (0.32%), flour protein (12.0%), and crumb grain score (3.5).

Seed of Finley will be maintained by the Washington State Crop Improvement Association under the supervision of the Department of Crop and Soil Sciences and the Washington State Agricultural Research Center. Finley seed may be obtained by contacting the corresponding author or through the National Plant Germplasm System (<http://www.ars-grin.gov/npgs/>; verified March 9, 2000).

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References and Notes

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Registration of 'Edwin' Wheat

'Edwin' (Reg. no. CV-882, PI 606765) is a club soft white winter (SWW) wheat (*Triticum aestivum* L.) developed by the Agricultural Research Center of Washington State University in cooperation with the Agricultural Experiment Stations of the University of Idaho and Oregon State University, and the United States USDA-ARS. Edwin was named in honor of Edwin Donaldson, Ph.D., wheat breeder at the Washington State University Dryland Research Unit, Lind, WA, from 1971 to 1999. On the basis of its high grain yield, excellent emergence, resistance to disease, and superior end-use quality, Edwin was released by the Washington Agricultural Research Center as a replacement for 'Moro' in the semi-arid, dryland club wheat production regions of Washington state.

Edwin (WA007834, H9109703) is a F₅ selection derived from the cross 'Jacmar'/'Stephens'/'Tres'/'4/PI167822/CIr 13438/'Luke'/'3/'Paña'. Edwin is short, standard-height wheat with mid-season maturity. It has elliptical, dense, awnless, white glumed spikes with kernels that are white, short, soft

and ovate; small germ with a midwide crease, rounded cheeks and a midshort to short brush.

On the basis of natural field infections from 1989–1999, Edwin expresses adult plant resistance to stripe rust (caused by *Puccinia striiformis* Westend.) races that are common in North America, but has seedling susceptibility to races CDL17 and CDL37. It is moderately susceptible to Pacific Northwest races of leaf rust (caused by *Puccinia triticina* Eriks) and stem rust (caused by *P. graminis* Pers.:Pers.). It has moderate resistance to eyespot [caused by *Pseudocercospora herpotrichoides* (Fron.) Deighton], cephalosporium stripe [caused by *Hymenula cerealis* Ellis & Everh. (= *Cephalosporium gramineum* Nisikado & Ikata)] and speckled snow mold disease (caused by *Typhula idahoensis* Rems & Tishikariensis Imai).

Edwin was evaluated in 24 replicated field trials over 5 yr in Washington state and the average grain yield and grain volume weight of Edwin exceeded that of Moro by 540 kg ha⁻¹ and 22 g L⁻¹, respectively. The average plant height of Edwin is medium-tall (92 cm), 8 cm shorter than Moro, while the straw strength (moderately stiff) is superior to Moro (moderately weak). The coleoptile of Edwin is long (101% of Moro) and the average heading date in Washington state is similar to Moro (146 and 145 d, respectively). Field survival in 1991 and 1999 (when winterkill was common in Washington state) suggests that the winter hardiness of Edwin is superior to Moro.

Mean values from tests conducted by the USDA-ARS Western Wheat Quality Laboratory from 19 site years in Washington state show that Edwin has grain properties that are generally equal to or better than Moro. Compared with Moro, Edwin has 8% less flour ash (0.36 vs. 0.39%), and is not significantly different than Moro in grain protein (11.4%), flour yield (71.1%), milling score (88.6), flour protein (10.3%), and flour viscosity (98 cP). Physical dough and end product testing indicate that it has flour that is equal to Moro in mixograph water absorption (52.7%), cookie diameter (9.3 cm), top grain score (5.7), sponge cake volume (1253 cc), and sponge cake score (72).

Seed of Edwin will be maintained by the Washington State Crop Improvement Association under supervision of the Department of Crop and Soil Sciences and the Washington State Agricultural Research Center, and may be obtained by contacting the corresponding author or through the National Plant Germplasm System (<http://www.ars-grin.gov/npgs/>; verified March 8, 2000).

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References and Notes

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Registration of 'Cassab' Lentil

'Cassab' lentil (*Lens culinaris* L.) (Reg. no. CV-11, PI 612245) was developed by the Centre for Legumes in Mediterranean Agriculture (CLIMA) germplasm evaluation team Western Australia (WA) and Agriculture Western Australia. It is a high yielding and high quality red lentil cultivar suitable for the low and medium rainfall areas of southern Australia.