**REGISTRATIONS OF CULTIVARS**

**Registration of ‘Hopewell’ Wheat**

‘Hopewell’ soft red winter wheat (*Triticum aestivum* L.) (Reg. no. CV-909, PI 595678) was developed by the Ohio State University-Ohio Agricultural Research and Development Center (OSU-OARDC) and released in February 1995. Previous experimental numbers for Hopewell were ‘R19182B-33-2’ and ‘OH490’. Hopewell was released because of its superior yields, excellent straw strength, and diverse pedigree. Hopewell was named after the Native American mound building peoples that flourished in the Ohio valley 2100 yr ago.

Hopewell’s pedigree is ‘Logan’/‘Hart’/3270A/Rousalka/3/TN1685/IA22'/6767/216-6-3 (Lafever, 1968; Sechler et al., 1977). 3270A was an Ohio experimental line with the pedigree: 2669F/Logan. 2669F was an Ohio experimental F1 population with the pedigree ‘S410’/Logan/Logan/‘Arthur’ (Patterson et al., 1974). S410 was a dwarf spring wheat of unknown ancestry. TN1685 was an Ohio experimental line from the cross ‘Heines VII’/Pur5752cl-7/‘Tailbot’ (Whiteside and Grefler, 1964). Pur5752cl-7 was an Indiana AES experimental line. 6767 was an Ohio experimental line with the pedigree TN1493/Pur 5724B3-5P-8-2. TN1493 was an Ohio experimental line with the pedigree ‘Redcoat’/TN1345 (Patterson et al., 1978). TN1345 was an Ohio experimental line with the pedigree ‘Lucas/CIttr 12530 (Heyne, 1960). Materials received through the International Rust and Powdery Mildew Nursery Program include Rousalka (PI520076), a winter wheat cultivar developed by CIMMYT; ‘IA22’ (IAPAR 22-Guarauna), a *T. aestivum* cultivar developed in Brazil; and 216-6-3, a French experimental line of unknown pedigree possessing resistance to *Stagonospora nodorum* (Berk.) Castellani & E.G. Germano.

The final cross, designated R19182B, was made by H.N. Lafever in 1982. The population R19182B was advanced without selection to the F3 generation at the OSU-OARDC research farm, Wooster OH. Thirty spikes were harvested randomly. The F4 generation was evaluated for maturity, height, and disease resistance as 30 hill plots, each containing grain from a single F3 spike. Two spikes were selected from a single F4 hill plot based on visual selection for height, heading date, and resistance to powdery mildew (caused by *Erysiphe graminis* D.C. f. sp. tritici Ém. Marchal; syn. *Blumeria graminis* (DC.) E.O. Speer). The F5 generation was evaluated for maturity, height, and disease resistance as two hill plots, each containing grain from a single F4 spike. Two spikes were selected from a single F4 hill plot based on visual selection for height, heading date, and resistance to powdery mildew, glume blotch, leaf rust (caused by *Puccinia triticina* Eriks.), standability, and uniformity. Harvested grain was evaluated for yield, test weight, and milling and baking quality. R19182B-33-2 was advanced from the F7 generation in replicated yield trials, initially at Wooster and then throughout Ohio. R19182B-33-2 was renamed OH490 in 1994.

Selected hill plots were harvested and advanced with selection for uniformity for two more generations. In 1994, Registration was compiled from selected uniform put crop drill strips and grown as Breeders Seed by the Ohio State University, Purdue University, University of Illinois, University of Missouri, and University of Kentucky. Freedom (750 g kg⁻¹) was slightly better than that of Germano. Freedom (72.1 kg hL⁻¹) for Freedom. The test weight of Hopewell (743 g kg⁻¹) was similar to that of Germano. Freedom (72.1 kg hL⁻¹) for Freedom. The test weight of Hopewell (72.9 kg hL⁻¹) was slightly better than that of Germano. Freedom (72.1 kg hL⁻¹). Hopewell’s phenol reaction is dark brown. Kernels are rounded and medium and shallow creased, with medium and noncollared. Kernels average 6.8 in length, 3.4 mm in width, and 33 mg in weight. Uniformity has been observed across four generations at the time of release. In Breeder Seed nurseries, Hopewell exhibited total variants involving tall plants, awned spikes, and bluegreen coloration.

In 22 location–years of replicated yield trials between 1991 and 1994, Hopewell averaged 4465.1 kg ha⁻¹ compared with Freedom (4371.2 kg ha⁻¹) (Gooding et al., 1997). At locations in the northeastern and midwestern United States, Hopewell averaged 44 kg more than that of Freedom (4351.1 kg ha⁻¹) for Freedom. The break flour yield of Hopewell (383 g kg⁻¹) was similar to that of Germano. Freedom (572 g kg⁻¹) for Freedom. The test weight of Hopewell (138 g kg⁻¹) was similar to that of Germano. Freedom (145 g kg⁻¹). Hopewell’s phenol reaction is dark brown. Kernels are rounded and medium and shallow creased, with medium and noncollared. Kernels average 6.8 in length, 3.4 mm in width, and 33 mg in weight. Uniformity has been observed across four generations at the time of release. In Breeder Seed nurseries, Hopewell exhibited total variants involving tall plants, awned spikes, and bluegreen coloration.

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