REGISTRATION OF 'VANCE' WHEAT

'VANCE' (Reg. no. 752, PI 532150) is a hard red spring wheat (Triticum aestivum L.) developed cooperatively by the Minnesota Agricultural Experiment Station and the USDA-ARS and was released in February 1989. Vance originated from the cross of ND560/MN7595 made in 1979. ND560 is a North Dakota State University line originating from the cross 'Butte'/Olaf. MN7595 is from the cross MN7262/ MN7260. MN7262 has 'Lovrin 11' and MN7260 has 'Ciano 67' and both have 'Era' and 'Tobari' in their pedigrees. Vance originated as an F3-derived line in 1981. About 250 headrows from F1, were grown at Weslaco, TX for winter increase, and phenotypically similar rows were bulked to form breeder seed for increase at St. Paul, MN in 1987.

Vance was tested as MN82354 in Minnesota state-wide trials from 1982 to 1988 and in the Uniform Regional Hard Red Spring Wheat Nursery from 1986 to 1988. Vance was similar in grain yield to 'Marshall' after 5 yr of state testing, but was about 5% less than 'Wheaton'. In 52 trials in the Uniform Regional Nursery, Vance has yielded 7% more than Era. Vance is similar to Marshall in days to head and lodging resistance but is about 4-cm taller. It is moderately resistant to shattering. Vance possesses at least a 0.5 percentage point increase in protein content and superior breadmaking quality compared to Marshall. The spike of Vance is awned, fusiform to oblong, and middense. The glumes are glabrous and white, shoulders are wide and elevated, and beaks are tapering and midlong. The kernel shape is ovate, midsize, with rounded cheeks, and the crease is narrow and middeep. The brush is midsize to small and midlong. The Federal Grain Inspection Service judged Vance's kernel type as typical hard red spring wheat.

Vance is highly resistant to prevalent races of stem rust [caused by Puccinia graminis (Pers.) f. sp. tritici (Erikss. and E. Henn.)] and leaf rust [caused by Puccinia recondita (Rob. ex Desm.) f. sp. tritici]. It is moderately resistant to loose rust [caused by Puccinia graminis (Pers.) f. sp. tritici (Erikss. and E. Henn.)] and wet rust [caused by Puccinia recondita (Rob. ex Desm.) f. sp. tritici].

In 52 trials in the Uniform Regional Hard Red Spring Wheat Nursery from 1986 to 1988, Vance has dry matter yields of 5.3 tons ha-1 or 4% above those of Nordan and 2% above those of Fairway. Seed yields in 11 tests were 26% above those of Nordan and 30% above those of Fairway. Fertility of florets was 64% compared to 44% for Nordan, and 63% for Fairway. Regrowth after cutting was good, being similar to Nordan and above that of other cultivars. In vitro digestibility was slightly below that of Nordan and Fairway. Kirk showed superior emergence from deep seeding of 5 cm. Longevity of Kirk in the black soil zone of Saskatchewan was better than for Nordan, but inferior to that of Fairway.

Kirk is adapted to the general area of crested wheatgrass use with best performance under moderately drought conditions. Kirk is suitable for spring grazing and hay.

Breeder seed will be maintained by the Agriculture Canada Research Station at Saskatoon, Saskatchewan, Canada and released in 1987. The Saskatoon experimental designation was S-7317, with the Saskatchewan Crop Development Council. Breeder seed was distributed to registered seed producers through the Red River Seed Association, 512-885 Meadowlands Drive, Ottawa, Ontario, Canada. Foundation seed of Kirk will be increased through a single generation of spring seeding of 5 cm. Breeder seed of Kirk will be increased through a single generation of spring seeding of 5 cm. Breeder seed will be maintained by the Agriculture Canada Research Station at Saskatoon, Saskatchewan, Canada and released in 1987. The Saskatoon experimental designation was S-7317, with the Saskatchewan Crop Development Council. Breeder seed was distributed to registered seed producers through the Red River Seed Association, 512-885 Meadowlands Drive, Ottawa, Ontario, Canada.