**REGISTRATION OF WINTERMALT BARLEY**

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"WINTERMALT" barley (*Hordeum vulgare* L.), C.I. 15767, is a winter malting barley developed at the Cornell Univ. Agric. Exp. Stn. and released jointly with the Oklahoma Agricultural Experimental Station. Wintermalt is a pure line selection (formerly N.Y. 6005-18) from the 1960 Ithaca hybrid of 'Traill' (spring malting) × 'Hudson' (winter feed) cultivars. Wintermalt is believed to be the first winter malting barley to be developed in the United States.

In preliminary trials, Wintermalt exhibited satisfactory malting quality from New York and Oklahoma production fields. Quality evaluations were made by the barley and Malt Laboratory, ARS-S&E-USDA, Madison, Wis. and by industry laboratories. The overall quality of Wintermalt has often been marginal when compared to spring malting cultivars but has been superior when compared to winter cultivars. Malt quality is good enough to make the cultivar commercially desirable, especially in a year when the supply of spring malting barley is limited. In the Southwestern U.S. it appears to be better adapted to irrigated rather than dryland production. In New York, Wintermalt performs as well as 'Schuyler' or Hudson under fall-sown rainfally conditions but it should be planted later because of more rapid early growth with consequent danger from fall bolting and winter smothering.

Wintermalt is a medium short 6-rowed, semi-rough, awned winter barley with good lodging resistance and early midseason maturity. The kernels have a white (yellow) aleurone and an acceptable range of plump kernels when grown under irrigation or favorable rain-fed conditions. The spike is medium short and compact and rachilla hair length is short. Winter hardiness equals that of local varieties; however, Wintermalt has the characteristic of rapid fall growth with risk of winter smothering if sown too early.

In 110 tests grown over a period of 5 years (1969-1973) in the Uniform Winter Barley Nursery of Hardy Varieties, Wintermalt had mean performance records compared with Schuyler, respectively, as follows: yield, 3,557 vs. 3,563 kg/ha; test weight, 59.7 vs. 57.8 kg/ha; survival, 66 vs. 76%; date headed, 17.0 May vs. 22.4 May; height, 82 vs. 79 cm; and lodging, 20 vs. 17%. In 12 years of tests at Ithaca, N.Y., Wintermalt exceeded Schuyler in yield 3,694 to 3,471 kg/ha and in test weight 61.8 to 60.9 kg/ha.

In Oklahoma, the 6-year mean yield (kg/ha) of Wintermalt vs. 'Kerr', respectively, at selected sites was: Stillwater 1,683 vs. 2,125, Lahoma 2,471 vs. 2,546, Altus 1,403 vs. 1,303, and Goodwell (irrigated) 4,928 vs. 4,518. Under commercial field conditions at Goodwell, Okla. over a period of 4 years, Wintermalt consistently yielded over 5,376 kg/ha. Other Wintermalt vs. Kerr mean comparisons over 6 years at Goodwell were: test weight, 62.6 vs. 63.2 kg/ha; height, 84 vs. 87 cm; heading date, 9 May vs. 1 May; and lodging (2 years), 69 vs. 82%.

In New York, Wintermalt has shown moderate resistance to loose smut, incited by *Ustilago nuda* (Jens.) Rostr., covered smut, incited by *Ustilago hordei* (Pers.) Lagerh., and powdery mildew, incited by *Erysiphe graminis* (DC.) Merat *hordei* Em. Marchal, however, to barley yellow dwarf virus and scald, incited by *Rhynchosporium secalis* (Oud.) J. J. Davis.

The generation sequences of seed production will be Breeder, Foundation, and Certified with the Registered class an option in Oklahoma. Breeder seed will be maintained by the Cornell Univ. Agric. Exp. Stn., Ithaca, NY 14853.

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**REGISTRATION OF PINDAK PINTO BEAN**

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'PINDAK' pinto bean (*Phaseolus vulgaris* L.) was developed by the ARS-S&E-USDA at the Irrigated Agriculture Research and Extension Center, Prosser, Wash., in cooperation with the Washington Agric. Exp. Stn. Pindak was named and released jointly by the North Dakota Agric. Exp. Stn. and ARS-S&E-USDA on 29 Jan. 1981.

The parentage of Pindak is an early maturing Japanese bush bean (name lost) × [("Pinto UI-114" resistant P.I. 203958) × Pinto UI-114]. Pedigree seed for initial performance selections were made at Prosser.

Pindak was tested extensively at several dryland locations in North Dakota from 1977 through 1980 with a mean yield (kg/ha) of 2,505, with a coefficient of variation of 11%. In 1980, Pindak UI-114, a commonly grown cultivar in North Dakota, failed in the major bean-growing areas of North Dakota in the National Cooperative Dry Bean Trial grown at 13 locations. In Canada in 1980, the yield of Pindak averaged 649 kg/ha, tured 5 days earlier than UI-114, the check. In North Dakota, Pindak matures 3 to 4 days earlier and has thicker right vines than Pinto UI-114. The flowers are white.

Pindak has outyielded UI-114, a commonly grown cultivar in North Dakota, by about 10% in the National Cooperative Dry Bean Trial in 1980. Pindak has outyielded UI-114, a commonly grown cultivar in North Dakota, by about 10%.

In field evaluations Pindak appeared to be resistant to some of the bean common mosaic virus. Pindak is immune to curly top virus and common bean mosaic virus. Pindak is resistant to the prevalent type and New York 15 strains of *Uromyces phaseoli* (Burk.) Snyd. and Hans. var. typica (Pers.) Saee. f. sp. *phaseoli*Burk.

Canning tests conducted by S. R. Drake at Prosser indicated that Pindak produces a cooked product similar to popular Pinto beans. The generation sequences of seed production will be Breeder, Foundation, and Certified with the Registered class an option in Oklahoma. Breeder seed will be maintained by the Cornell Regents, Ithaca, N.Y. 14853.