Registration of Crop Cultivars

REGISTRATION OF UC SIGNAL BARLEY

G. F. Worker, Jr., and C. W. Schaller

‘UC SIGNAL’ barley (Hordeum vulgare L.) CI 15536, was developed at the Imperial Valley Field Stn., Univ. of Calif., El Centro. It was developed from a single plant selected in 1965 from the F$_2$ generation of a bulk population grown for 11 generations (F$_2$ to F$_{10}$) in the semi-arid environment at the Imperial Valley Stn. The original bulk F$_1$ population was received from the Agron. and Range Sci. Dep., Univ. of Calif., Davis, in 1973. The population was synthesized using male-sterile selections from C.C. XIV and C.C. XV as female parents and C.C. II, C.C. V, and C.C. XII as pollen sources.

UC Signal is a six-rowed, semi-smooth awned, early maturing, spring-type feed barley. It has medium short, weak straw and medium dense, erect spikes. The kernels are large, with medium blue aleurone color and short-haired rachilla. It has limited tolerance to the barley yellow dwarf virus.

Yield trials comparing UC with cultivars being grown commercially in the Valley were conducted over a 6-year period at the Imperial Valley Field Stn. UC Signal outyielded ‘California Mariout,’ ‘CM 67,’ ‘Numar,’ and ‘UC 566’ by 27, 13, 15, and 15%, respectively. In eight location-year comparisons in the San Joaquin Valley its performance was slightly lower than UC 566 and CM 67.

UC Signal was released by the Univ. of Calif., Davis, in 1973. It is recommended for production in the lower desert areas, principally in the Imperial Valley.

Breeder seed will be maintained by the Dep. of Agron. and Range Sci., Imperial Valley Field Stn., Univ. of Calif., El Centro.

REGISTRATION OF PURCELL BARLEY

E. A. Hockett, J. A. Benson, and R. F. Eslick

‘PURCELL’ barley (Hordeum vulgare L.), CI 16181, was developed cooperatively by the ARS, USDA, and the Mont. Agric. Exp. Stn., Bozeman. It was selected from a ‘Freja’ × ‘Vantage’ backcross, with the original cross being made in 1952. Following the third backcross, selection for stiff straw was made each backcross generation. The final selection (MT 8553-Stiff Freja) was made in 1968 and was derived from a single F$_3$ plant. Purcell was released to growers in 1974.

Purcell is a two-rowed, midseason, mid-tall, white-kerneled, colorless aleurone color spring feed barley, very similar to Freja in appearance. It is equal to Freja for test weight and plant height, but heads one day earlier and is superior for lodging resistance. It has nodding spikes with rough awns, long hairs on the rachilla, glumes covered with long hairs, and glume awns equal to the length of the glume. The disease reaction of Purcell is unknown.

Purcell was released to growers in 1974. It averaged 18.8% higher in yield than Freja and 3.5% higher than ‘Firlbecks III’ in 4 station-years of testing at Bonnets Mountain Barley Nursery (19 stations), Purcell is adapted best to the northern portions of Montana. Freja is grown and shows superior adaptation to the southern portions of Montana. Breeder seed will be maintained by the Dep. of Agron. and Range Sci., Univ. of Calif., Davis, in 1973. It was tested as M16 before release. The name Purcell is a contraction of the words “many kernels” which is a distinguishing characteristic of the cultivar.

Purcell is a two-rowed, midseason, mid-tall, white-kerneled, colorless aleurone color spring feed barley. The spike is medium-lax, long, and semi-erect. Manker is medium-early, mid-tall and has moderately strong straw. It is distinct from ‘Larker’ and similar barleys grown in the upper Midwest in having more kernels/spike, fewer tillers, and lower tiller mortality. It is highly rust and to spot blotch.

In 66 trials in Minnesota conducted over 2 years, grain yields of Manker have exceeded those of other Minnesota. Quality testing, done in collaboration with the USDA Barley and Malt Lab., Madison, Wis., and industry laboratories, shows that Manker differs from Larker and other malting cultivars in the Midwest by having a higher percentage of soluble protein. Industry plant scale malting and brewing tests should be completed with the 1974 crop. Breeder seed is maintained by the Minn. Agric. Exp. Stn., St Paul, MN 55108.

REGISTRATION OF TAMNUT 74 PEANUT

C. E. Simpson and O. D. Smith

‘TAMNUT 74’ peanut (Arachis hypogaea L.) is a Spanish type cultivar, developed and tested as breeding line TP-716-2-I and was released with characteristics very similar to ‘Start.’ Tamnut 74 was developed from a single F$_2$ plant selected from the cross ‘Spantex’ × wild American peanut. Tamnut 74 was released to growers in 1974.

It is recommended for production in the lower desert areas, principally in the Imperial Valley. It is a semideterminate, early-maturing cultivar with characteristics very similar to ‘Start.’ Tamnut 74 is highly tolerant to the barle.y yellow dwarf virus. Industry plant scale malting and brewing tests have shown that Tamnut 74 is superior to ‘Starr’ and other cultivars in the Midwest by having a higher percentage of soluble protein. Industry plant scale malting and brewing tests should be completed with the 1974 crop. Breeder seed will be maintained by the Dep. of Agron. and Range Sci., Imperial Valley Field Stn., Univ. of Calif., El Centro.

REGISTRATION OF MANKER BARLEY

D. C. Rasmusson and E. E. Bantari

‘MANKER’ barley (Hordeum vulgare L.), CI 15549, was developed by the Minn. Agric. Exp. Stn. and released Apr. 1, 1974. Manker appears best adapted to the Red River Valley area of Minnesota. Quality testing, done in collaboration with the USDA Barley and Malt Lab., Madison, Wis., and industry laboratories, shows that Manker differs from Larker and other malting cultivars in the Midwest by having a higher percentage of soluble protein. Industry plant scale malting and brewing tests should be completed with the 1974 crop. Breeder seed is maintained by the Minn. Agric. Exp. Stn., St Paul, MN 55108.