REGISTRATION OF UC SIGNAL BARLEY
(Reg. No. 142)
G. F. Worker, Jr., and C. W. Schaller

‘UC Signal’ barley (Hordeum vulgare L.) CI 15356, was developed at the Imperial Valley Field Stn., Univ. of Calif., El Centro. It was developed from a single plant selected in 1963 from the F₂ generation of a bulk population grown for 11 generations (F₁ to F₁₁) in the semi-arid environment at the Imperial Valley Stn. The original bulk F₁ population was received from the Agron. and Range Sci. Dep., Univ. of Calif., Davis, in 1975. 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 Signal with cultivars being grown commercially in the Valley were conducted over a 6-year period at the Imperial Valley Field Stn. UC Signal outyielded ‘Calif. Marriot’, ‘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
(Reg. No. 143)
E. A. Hockett, J. A. Benson, and R. F. Elick

‘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’ F₁/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 F₁ plant. Purcell was released to growers in 1974.

Purcell is a two-rowed, midseason, mid-tall, white-kerneled, colorless aleurone spring feed barley, very similar in appearance to Freja. It is equal to Freja for test weight and plant height, but bears 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 averaged 18.8% higher in yield than Freja and 35% higher than ‘Firehecks III’ in 4 station-years of testing at Bonners Ferry, Idaho. It yielded 6.7% and 5.8% more than Freja and ‘Bettes’, respectively, and 5.1% less than ‘Unitan’ in 32 station-years of testing in Montana during 1970-75. In the 1973 Rocky Mountain Barley Nursery (19 stations), Purcell yielded 4.6% more than Firehecks III and 5.4% more than Unitan.

Purcell is adapted best to the northern Idaho area, where Freja is grown and shows superior adaptation. Breeder seed will be maintained by the Sandpoint Res. and Ext. Cen., Sandpoint, Idaho.

REGISTRATION OF TAMNUT 74 PEANUT
(Reg. No. 144)
D. C. Rasmusson and E. E. Banttari

‘TAMNUT 74’ peanut (Arachis hypogaea L.), CI 15549, was developed by the Minn. Agric. Exp. Stn. and released Apr. 1, 1974. It was tested as M16 before release. The name Manker comes from a contraction of the words “many kernels” which is a distinguishing characteristic of the cultivar. Manker originated from a single F₁ plant selected from the cross ‘Gree’/4’/Parkland’/2’/NDB12/3’/Vantage’/2’/Kindred’/1/’Jotun’, which was made in 1963. F₁, F₂, F₃, and F₄ generations were grown during the winter in greenhouses at St. Paul; the F₈ and F₉ generations, in the field at the Northwest Exp. Stn., Crookston, Minn.; and the F₉ generation was grown in a winter nursery at Ciudad Obregon, Sonora, Mexico.

Manker is a six-rowed, rough-awned, spring barley. The kernels are covered, medium sized, with a short haired rachilla and a white aleurone. 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 midwest in having more kernels/spike, fewer tillers, and lower tiller mortality. It is resistant to stem rust and to spot blotch.

In six trials in Minnesota conducted over a 5-year period, grain yields of Manker have exceeded those of Larker by 9%. 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.