Registration of Crop Cultivars

REGISTRATION OF UC SIGNAL BARLEY¹
(Reg. No. 142)

G. F. Worker, Jr., and C. W. Schaller²

'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 F₃ generation of a bulk population grown for 11 generations (F₂ 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 '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.

¹Registered by the Crop Sci. Soc. of Am. Received Mar. 21, 1974.
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REGISTRATION OF PURCELL BARLEY¹
(Reg. No. 144)

E. A. Hockett, J. A. Benson, and R. F. Eslick²

'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' *7/'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 F₃ 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 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 hairs covering the awns. Purcell averaged 18.8% higher in yield than Freja and 3.5% more than Firlbecks 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 Montana Agric. Exp. Stn., Bozeman. It was selected from a 'Freia' *7/'Vantage' backcross generation. The final selection (MT 8553-Stiff Freja) was made in 1968 and was derived from a single F₃ plant. Purcell was released to growers in 1974.

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REGISTRATION OF MANKER BARLEY¹
(Reg. No. 131)

D. C. Rasmusson and E. E. Baer

'Manker' barley (Hordeum vulgare L.), CI 15549, was developed and tested as breeding line TP-716-2-I and was released from the F₄ generation of a bulk population grown for 11 years of testing in Montana during 1970-73. In the 1973 Rocky Mountain Nursery Seed Tests, 'Manker' averaged 18.8% higher in yield than Freja and 3.5% more than Firlbecks 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 Montana Agric. Exp. Stn., Bozeman. It was selected from a 'Freia' *7/'Vantage' backcross generation. The final selection (MT 8553-Stiff Freja) was made in 1968 and was derived from a single F₃ plant. Purcell was released to growers in 1974.

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REGISTRATION OF TAMNUT 74 PEANUT¹
(Reg. No. 143)

C. E. Simpson and O. D. Smith¹

'Tamnut 74' peanut (Arachis hypogaea L.), CI 16224, was described cooperatively by the ARS, USDA, and the Mont. Agric. Exp. Stn., Bozeman. It was selected from the cross 'Spantex' and a wild was obtained in 1960 from the USDA Breeding program at the Northwest Exp. Stn., Crookston, Minn. The name was derived from a contraction of the words "many kernels" which is a distinguishing characteristic of the cultivar. Tamnut 74 resulted from the cross, Start X breeding line TPL 647-2-5. TPL 647-2-5 was derived from a cross between 'Cree'/4/'Parkland'*/92243,'2/NDB112/3/'Vantage'/*2/'Kindred'/*/Jotun,' with characteristics very similar to 'Start.' Tamnut 74 was developed cooperatively by the ARS, USDA, and the Mont. Agric. Exp. Stn., Bozeman. It was selected from a 'Freia' *7/'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 F₃ plant. Purcell was released to growers in 1974.

Purcell is adapted best to the northern Idaho area, where Freja is grown and shows superior adaptation.

Breeder seed will be maintained by the Montana Agric. Exp. Stn., Bozeman. It was selected from a 'Freia' *7/'Vantage' backcross generation. The final selection (MT 8553-Stiff Freja) was made in 1968 and was derived from a single F₃ plant. Purcell was released to growers in 1974.

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