Registration of ‘Post 90’ Barley

‘Post 90’ barley (Hordeum vulgare L.) (Reg. no. CV-312, PI 549081) is a winter feed barley developed cooperatively by the Oklahoma Agricultural Experiment Station and the USDA-ARS and released in 1991. Post 90 is a composite of greenbug (Schizaphis graminum Rond.) resistant plant selections from the cultivar Post. Post (Edwards et al., 1985), released by the Oklahoma Agricultural Experiment Station in 1977, is a high yielding, widely adapted, winter feed barley reported to be resistant to all then known greenbug biotypes B, C, and E (Webster and Starks, 1984). Greenbug resistance is derived from a parent ‘Will’ (Jackson and Schellhuber, 1965), which was reported to carry the greenbug resistance gene Grb (Gardenhire et al., 1973) later renamed Rslga (Merkle et al., 1987). Post, used extensively in greenbug biotyping studies (Puterka et al., 1988), was found heterogeneous for greenbug resistance. Post 90 is a composite of 105 Post plants that were selected for homozygous resistance to biotype C. Post 90 was assigned the experimental number OK82850 and is equivalent to Post for yield, test weight, and straw strength. It is more uniform in height, spike size, and maturity.

Post 90 is a short-strawed, six-rowed, rough-awned barley with mid-to late-season maturity. Early plant growth is semi-prostrate when fall-seeded. Spikes are short and dense with rachis internodes approximately 2 mm in length and edged with few glumes. Glumes are partially covered with long hairs and are approximately one-half the length of the lemma. Lemma awns are long and glume awns are longer than glumes. The covered kernels have a white aleurone and have a few lemma teeth on the lateral and marginal nerves. Rachilla hairs are short and hulls are slightly to semi-wrinkled. Post 90 is 2 cm shorter in stature than Post. Post 90 is adapted statewide in Oklahoma and also to some environments in the western, northwestern, eastern, and north-eastern USA. It has been evaluated in replicated performance trials from 1983 to 1990 both in Oklahoma and in the Uniform Winter Barley Nursery at 17 locations across the barley growing areas of the USA and Canada. Average yields (22 station years) are 3961 kg Station. Cache meadow bromegrass is intended for use on irrigated pastures in the Intermountain Region and Northern Great Plains of western USA. Cache was evaluated in replicated performance trials from 1983 to 1990 the USDA-ARS, Forage and Range Research Laboratory at Ft. Collins, CO. 2004. *Corresponding author (crogers@ag.arizona.edu).

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Registration of ‘Cache’ Meadow Bromegrass

‘Cache’ meadow bromegrass (Bromus riparius Rehms.), (Reg. no. CV-22, PI 634710) was developed by a research team at the USDA-ARS, Forage and Range Research Laboratory at Utah State University, Logan, UT, and was released on 2 Feb. 2004 in cooperation with the Utah Agricultural Experiment Station. Cafe meadow bromegrass is intended for use on irrigated and semi-irrigated pastures in the Intermountain Region and Northern Great Plains of western USA. Cache was evaluated under the experimental designation UT-MB.

The parental germplasm for Cache was derived from selections within PI 578532 (‘Regar’; 20.9%) (Alderson and Sharp, 1994), PI 536002 (‘Fleet’; 54.1%) (Knowles, 1990a), and PI 536013 (‘Paddock’; 25%) (Knowles, 1990b). The original space-plant source nursery established in 1995 consisted of 1200 plants of meadow bromegrass representing 400 plants each of the three cultivars. On the basis of vegetative vigor in 1996, open-pollinated (OP) seed was harvested from 70 selected plants. On the basis of a selection index that included total seed yield and 100-seed weight, seed from 12 OP plants were selected and 100 seedlings from each plant were established in 1997 at the Evans Research Farm, Logan, UT, in a completely randomized design to initiate cycle-2 selection. On the basis of vegetative vigor, OP seed from 133 cycle-2 plants were selected. With additional emphasis placed on seed yield, 100-seed weight, and seedling emergence from a 7.6-cm planting depth (Maguire, 1962), this number was reduced to OP seed from 28 plants. In 1999, the 28 progeny lines


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