

**NEBRASKA AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF NEBRASKA-LINCOLN
DEPARTMENT OF AGRONOMY**

RELEASE OF P-954 WINTER FEED BARLEY

The Nebraska Agricultural Experiment Station releases a new six-rowed, winter, feed barley variety (*Hordeum vulgare* L.) named P-954. P-954 was previously tested as NE86954. P-954 was selected from the cross Hitchcock/Maury//Hitchcock which was made by Dr. John W. Schmidt or his graduate students in 1980. P-954 is an F₃-derived line selected in the F₄ generation on the basis of its maturity, plant height, straw strength, and winter hardiness. Replicated agronomic testing began in 1986. P-954 was released on the basis of its superior winter hardiness, straw strength, and grain yield under dryland conditions.

P-954 has rough awns, and its covered kernels have long rachilla hairs and a yellowish aleurone. The spike is medium lax and medium in length. In 20 trials grown in Nebraska (1990-1998), P-954 yielded 56.1 bu/a (3010 kg/ha). This yield was higher than Dundy (49.8 bu/a, 2680 kg/ha), Hitchcock (42.4 bu/a, 2280 kg/ha), and Perkins (49.9 bu/a, 2686 kg/ha). Grain volume weight is similar to that of Dundy (49 lb/bu, 63.1 kg/hl) and higher than that of Hitchcock (48 lb/bu, 61.8 kg/hl). At mature plant height, P-954 is about 2 inches (5 cm) shorter than Perkins (31.5 in, 80 cm) and has good straw strength. P-954 flowers similarly to Perkins, but 2 days earlier than Hitchcock and Dundy. P-954 has a similar winter hardiness to Hitchcock and Dundy but is superior to Perkins. P-954 has better resistance to powdery mildew (incited by *Erysiphe graminis* DC. f. sp. *Hordei* Em. Marchal) than Perkins and Hitchcock, but is more susceptible than Dundy. P-954 is moderately susceptible to leaf rust (incited by *Puccinia hordei* G. Otth) and barley yellow dwarf virus (BYDV). Based on current information, P-954 is best adapted to dryland production in western Nebraska and the southern Great Plains where winterkilling is less frequent than in eastern Nebraska.

Small quantities (10 g) of seed of P-954 for crossing is freely available from Dr. P. S. Baenziger, 330 Keim Hall, University of Nebraska, Lincoln, 68583-0915 to interested plant breeders. Exclusive seed production and marketing rights for P-954 have been licensed to Paramount Farms, Route 3, Box 46, Quinter, Kansas 67752 who will maintain the commercial classes of seed. This cultivar will be protected by contract with Paramount Farms.

Development Team: P. S. Baenziger, Kyung-moon Kim, Jill McNeill, Laura Oberthur, Terry Berke, Thomas Payne, Stephen Dofing, and John W. Schmidt (deceased).

Approval

Director, Nebraska Agricultural
Experiment Station

date