

MAY 3 1990 RECEIVED

COLLEGE OF AGRICULTURE RESEARCH CENTER

WASHINGTON STATE UNIVERSITY

PULLMAN, WASHINGTON 99164-6420

AND

IDAHO AGRICULTURAL EXPERIMENT STATION

UNIVERSITY OF IDAHO

MOSCOW, IDAHO

AND

OREGON AGRICULTURAL EXPERIMENT STATION

OREGON STATE UNIVERSITY

CORVALLIS, OREGON

RELEASE OF 'HUNDRED' (WA6739)
A NEW SIX-ROW WINTER BARLEY CULTIVAR

The Washington Agricultural Research Center announces the release of WA6739 barley with the name 'Hundred' to farmers and seedsmen for commercial production. Hundred was developed by the Washington Agricultural Research Center. The proposed cultivar name is a reflection of the centennials of the State of Washington (1989) and of Washington State University (1990).

Hundred was initially selected in Pullman in 1977 in the F₄ generation from a 1973 cross of two WSU lines, WA2196-68/WA2509-65. WA2196-68 resulted from the cross Luther/Hudson and WA2507-65 is from the cross Alpine/Svalof/White Winter/Triple-Bearded Mariout-305. The selection was subsequently tested as WA6739. It was tested in Washington nurseries for six years and the USDA-ARS coordinated Northwest Regional Winter Barley Nursery for three years prior to release.

Hundred yielded 108 and 118% of Boyer and Kamiak (the two most grown winter barleys in Washington), respectively, averaged over 74 location-years in Washington and across western states. Within Washington Hundred outyielded Boyer and Kamiak by 8 and 30%, respectively, over 17 location-years at four state nursery sites and by 14 and 24%, respectively, over 27 location years at nine Extension nursery sites. Hundred was the top yielder in eight of the nine Extension nursery sites averaged over three years. Hundred yielded 103 and 109% of Boyer and Kamiak, respectively over 34 location-years in the Northwest Regional Nursery. Hundred's yield has been equal to or slightly higher than that of Hesk, a good commercial cultivar but little grown in Washington. Hundred's test weight is similar to that of Boyer, Showin and Hesk and slightly lower than Kamiak.

The average protein percentage measured over 16 locations-years in Washington was 13.4% which was similar to the average of the other cultivars grown in




Washington; Boyer, Kamiak, Showin and Hesk. Animal nutrition trials indicate that Hundred has nutritional quality higher than Boyer, Kamiak and Showin and about the same as Hesk. Micro-malting tests have indicated that there is some potential for Hundred to be acceptable to industry for malting purposes, but currently it is classified as a feed barley.

Hundred has a semi-dwarf stature and lodging resistance similar to Showin's, but with superior yield. Hundred's plant height is 93, 93, 84 and 108% of the plant height of Boyer, Hesk, Kamiak and Showin, respectively. Hundred's height advantage over Showin's could be beneficial in dry growing areas. Hundred's lodging resistance is similar to the other semi-dwarfs; Boyer, Showin and Hesk, and 40% greater than the standard height cultivar Kamiak. Hundred has winterhardiness similar to Kamiak, the most winterhardy barley grown in the Pacific Northwest, and slightly better than Boyer, Showin and Hesk. Hundred is earlier in maturity than Showin, similar to Boyer and Hesk and later than Kamiak. Diseases have been of little consequence in winter barley, but Hundred has displayed greater resistance to scald (*Rhynchosporium secalis*) and powdery mildew (*Erysiphe graminis hordei*) than the other commercial cultivars.


Hundred is a 6-rowed, mid-season maturing, erect growing, winter barley. It has a club, erect spike with long, rough awns and white kernels with short rachilla hairs.

Approximately 10,000 head rows collected from the 1988 crop were planted the fall of 1988 for Breeder's Seed production in 1989. Ten acres of Breeder's Seed was planted in the fall of 1989 for Foundation Seed Production in 1990. Breeders and Foundation Seed of Hundred will be maintained by the Washington State Crop Improvement Association.

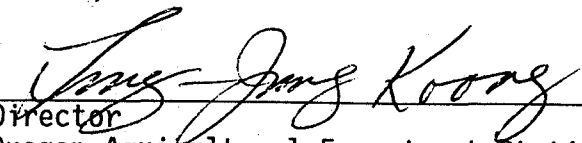
The proposed date for release of Hundred for publicity purposes shall be effective subsequent to the date of final signature of this release notice.

for 
Director
Washington Agricultural Research Center
Washington State University
Pullman, Washington

4-30-90
Date


Director
Idaho Agricultural Experiment Station
University of Idaho
Moscow, Idaho

4-23-90
Date

for 
Director
Oregon Agricultural Experiment Station
Oregon State University
Corvallis, OR

4-25-90
Date

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for *J. C. Alenst*
Director
Washington Agricultural Research Center
Washington State University
Pullman, Washington

4-30-90
Date

Ray C. Lee
Director
Idaho Agricultural Experiment Station
University of Idaho
Moscow, Idaho

4-23-90
Date

for *Tommy-Jung Koong*
Director
Oregon Agricultural Experiment Station
Oregon State University
Corvallis, OR

4-25-90
Date

