REGISTRATION OF CROP CULTIVARS

Columbia carries Prunus Necrotic Ringspot virus. However, no virus symptoms have been observed thus far in Oregon field trials.

The cultivar produces medium-sized cones (about 150 mg dry wt.), that are slightly smaller than those of seeded Fuggle. They can be picked easily by machine with little shattering and excellent vine cleanup. The resin (lupulin) glands are plentiful and have a golden yellow color. The aroma is mild, pleasant, and similar to that of Fuggle.

Mature plants of Columbia outyielded comparable Fuggle plants by 86% in experimental yield trials over a 5-year period, and by 38% in 0.8 ha commercial trials over a 2-year period. Seed content in commercial plots averaged less than 2%, compared to about 12% for Fuggle. The alpha acids content of Columbia in experimental yield trials varied from 7.0% to 10.2% with a mean of 8.5%, as compared to an average of 5.4% for Fuggle. The proportion of alpha acids to beta acids averaged slightly higher than that of Fuggle. The cohumulone content of Columbia was higher than that of Fuggle, but essential oils were slightly lower. In the 2 years of commercial trials, Columbia produced alpha acids levels that averaged 56% higher than those of Fuggle, while beta acids content was 42% higher.

Columbia yields about 15% extract (toluene solvent), compared to about 10% for Fuggle. The extract contains about 50 to 55% alpha acids. Preliminary data indicate that the storage stability of dried cones of Columbia is better than that of Fuggle. Commercial-scale brewing tests by a major domestic brewery indicated that Columbia would be an acceptable substitute for Fuggle, and other brewers have expressed interest in using it.

The variety is best adapted to the Willamette Valley of Oregon, where Fuggle also grows well. It is not adapted to the Yakima Valley of Washington, and tests in Idaho have been inconclusive.

In April 1976, Columbia was released to hop growers for commercial production. The original breeder stock of Columbia will be maintained by the Oregon Agric. Exp. Stn., Corvallis, OR 97331.

REGISTRATION OF WILLAMETTE HOP

(Reg. No. 6)

Alfred Hauenholtz, C. E. Horner, S. T. Likens,
D. D. Roberts, and C. E. Zimmermann

‘Willamette’ hop (Humulus lupulus L.), a triploid sister selection of ‘Columbia’, was early recognized by a major U.S. brewer for having exceptionally desirable aroma characteristics that closely resemble those of Oregon-grown ‘Fuggle’. Willamette was first tested as Selection No. 6761-117 and in 1971 was assigned the permanent USDA Hop Accession No. 21041. Willamette was developed to offer American hop growers a cultivar with an aroma-profile similar to that of the low yielding Fuggle and imported European hops which frequently are available to U.S. brewers at premium prices. The triploid (2n = 3x = 30) chromosome complement of Willamette results in very low seed set when pollinated by fertile male plants. Therefore, growers receive the customary premium for seedless hops, regardless of pollination by fertile male hop plants.

In Oregon, Willamette matures in late August or early September, about 4 to 6 days earlier than its sister selection, Columbia. It produces many large, viscous shoots early in the season. A uniform white seed color. Resin (lupulin) glands are plentiful and have a golden yellow color.

Willamette is released to hop growers for commercial production. The original breeder stock of Willamette will be maintained by the Oregon Agric. Exp. Stn., Corvallis, OR 97331.

REGISTRATION OF DAWN PROSO MILLET

(Reg. No. 38)

Lenis A. Nelson

‘Dawn’ proso millet (Panicum miliaceum L.) was developed at the Univ. of Nebraska, Panhandle Station. The original breeder stock was assigned the permanent USDA Plant Accession No. 2080. Willamette was released on 20 Jan. 1976.

Dawn is a white-seeded proso with a closed head selection that was tested under the experimental number IPm 1108 which was in the 1.2 m wide plots but performed better in wider plots. It has a yield record slightly lower and more erratic than ‘Panhandle’ in the 1.2 m wide plots but performed better in wider plots.

Dawn was evaluated from 1970 to 1975 at several locations and has a golden yellow color. The aroma is mild, pleasant, and similar to that of Fuggle.

The variety is best adapted to the Willamette Valley of Oregon, where Fuggle also grows well. It is not adapted to the Yakima Valley of Washington, and tests in Idaho have been inconclusive.

Willamette was released to hop growers for commercial production. The original breeder stock will be maintained by the Oregon Agric. Exp. Stn., Corvallis, OR 97331.