REGISTRATION OF 'CENTENNIAL' HOP

'CENTENNIAL' HOP (Humulus lupulus L.) (Reg. no. CV-17, PI 546055) was developed at the Irrigated Agriculture Research and Extension Center in Prosser, WA, and was released cooperatively by the Washington Agricultural Research Center and the USDA-ARS in September 1990.

Centennial is a selection from the cross OR6619-04/USDA63015M made at Prosser in 1974. Selection OR6619-04 is from a cross of 'Brewer's Gold'/Brewer's Gold/19040M. Selection 19040M is from a cross of 'Fuggle'/Fuggle/unknown male. USDA63015M is from a cross of Brewer's Gold/Brewer's Gold/19062M. Selection 19062M is from a cross of 'East Kent Golding'/Bavarian/unknown male. The genetic composition of Centennial is 3/4 Brewer's Gold, 3/32 Fuggle, 1/16 East Kent Golding, 1/32 Bavarian and 1/16 unknown.

Centennial was tested as selection W415-90 for 15 yr in single-hill and five-hill plots at the Roza unit of the Irrigated Agriculture Research and Extension Center. During this time it had a calculated average seedless hop cone yield of 1870 kg ha⁻¹, an average α-acid content of 11.2%, and an average β-acid content of 4.1%. Selection W415-90 was tested in five-hill plots near Corvallis, OR, for 7 yr, where it had a calculated average cone yield of 1630 kg ha⁻¹, an average α-acid content of 12.1%, and an average β-acid content of 4.3%. In a 3-yr nine-hill plot at Wilder, ID, it had an average α-acid content of 11.5%, and an average β-acid content of 4.2%. Between 1985 and 1989, selection W415-90 was tested in a 0.8-ha commercial planting near Prosser, WA. During this time it had an average seedless hop cone yield of 1996 kg ha⁻¹, an average α-acid content of 11.5%, and an average β-acid content of 4.6%. During the same period, the average commercial seedless hop cone yield in Washington was 2077 kg ha⁻¹.

Centennial is an early- to midseason-maturing cultivar. It has excellent spring regrowth and good vigor. The shoots cling well to the supporting string and climb rapidly to the top of the trellis (5.5 m). The lateral branches range between 0.6 and 1.3 m in length, and the plant has a clavate growth form. Centennial is moderately resistant to hop downy mildew caused by Pseudoperonospora humuli (Miyabe & Takah.) G.W. Wils. Field stocks infected with hop mosaic virus, hop latent virus and American hop latent virus show no apparent symptoms.

Centennial produces small, dense cones evenly distributed on the upper half of the plant. Seedless cones average 33 mm in length and 245 mg in dry weight. At maturity, bracts are light green, ovate, and average 17 mm in length; seedless bracteoles are yellow-green, lanceolate, and average 14 mm in length. The cones are borne in loose clusters on the lateral branches, and thus are easily picked and cleaned. The abundant lupulin is yellow and has an average α-acid homologue composition of 61% humulone, 29% cohumulone, and 10% adhumulone. After 6 mo storage at room temperature, >50% of the original α-acid content remained in the dried hop cones.

References and Notes