REGISTRATION OF CROP CULTIVARS

REGISTRATION OF 'MARION' ANNUAL LESPEDEZA

'Marion' annual lespedeza (Lespedeza striata (Thunb.) H. and A.) (Reg. no. 14, PI 535811) was cooperatively released by the Missouri Agricultural Experiment Station, the Arkansas Agricultural Experiment Station, and the USDA-ARS, in March 1989.

Marion originated from F.C. 31852, an early maturing selection acquired by J.D. Baldridge, USDA-ARS (Retired), University of Missouri, M. S. Offutt, University of Arkansas (deceased), extensively evaluated F.C. 31852 and developed 'ARK-S-100', the experimental designation of Marion, from a single plant selection within F.C. 31852.

Marion is about 3 wk earlier in maturity than 'Kobe' (L. striata), but 1 wk later than 'Summit', an improved cultivar of 'Korean' lespedeza (L. stipulaceae Maxim.) when grown at Fayetteville, AR. Observations at Columbia, MO demonstrate that Marion flowers approximately 3 wk earlier than Summit and 4 wk earlier than Kobe. Marion can be grown successfully as far north as the Missouri-Iowa border where killing frosts commonly inhibit successful seed production of the striate lespedezas. Marion flowers exhibit a deep pur-

Detailed serological tests involving the ELISA technique over a 3-yr period have shown that Mt. Hood is free of the Apple and Cherry serotypes of Prunus necrotic ringspot virus and is also free of other major hop viruses such as hop mosaic virus, hop latent virus, and American hop latent virus. The lower leaves of mature plants of Mt. Hood occasionally show a slight yellow-fleck pattern, which is believed to be due to physiological causes.

Mt. Hood produces from 1400 to 2200 kg/ha of dried cones, substantially higher than Hallertauer mittelfrühr under comparable conditions. Its soft resin content (alpha plus beta acids) is about 2% higher than that of Hallertauer mittelfrühr with beta acids sometimes higher than alpha acids. The ratio of alpha/beta acids over the 3-yr testing period has ranged from 1.3 to 0.7 with the lower ratios predominating in the commercial test plots. The cumulonule fraction of the alpha acids has ranged from 22 to 27% with the lower values predominating. The ratio of humulene:caryophyllene in the essential oils has ranged from 2.2 to 2.65, somewhat lower than the Hallertauer mittelfrühr control. Like Hallertauer mittelfrühr, the essential oil of Mt. Hood contains little or no farnesene. Experienced brewery taste panels have judged Mt. Hood to be comparable to imported noble aroma hops such as Hallertauer mittelfrühr and Hersbrucker.

Mt. Hood was released for public use by the USDA in March 1989 in cooperation with the Oregon, Washington, and Idaho Agricultural Experiment Stations. Virus-free clones of Mt. Hood will be maintained by the USDA-ARS, in the Hop Cultivar World Collection in the Hop Cultivar World Collection at Oregon State University, and at the USDA National Clonal Germplasm Repository, Corvallis, OR.

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References and Notes


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in early spring and Helminthosporium leafspot (caused by Drechslera poae Baudys-Shoem).

Commercial seed of Ronde will be produced under the seed certification with classes limited to breeder, foundation, and certified. Breeder seed will be produced from spaced plants. Seed samples may be obtained from the author or the seed company contractor. Seed production fields will be limited to a 5 yr rotation sequence unless otherwise dictated by certification requirements. United States Plant Variety Protection is pending.

R.D. ENSIGN* (3)

References and Notes

1. Ensign, R.D. 1987 Registration of 'Alene' Kentucky bluegrass. Crop Sci. 27:149


REGISTRATION OF MT. HOOD HOP

'Mt. Hood', a new aroma hop (Humulus lupulus L.) cultivar (Reg. no. 16, PI 535808) resulted from a 1983 cross between the colchicine-induced tetraploid female 'Hallertaur mittelfrühr', USDA 21397, and the male hop genotype USDA 1905SM (1). In 1985 the USDA Accession Number 21453 was assigned to the selection and Mt. Hood has since been tested under this number.

Mt. Hood is an aroma hop of medium maturity adapted to the hop growing areas of the Pacific Northwest. It is a triploid (2n = 3x = 30), nearly sterile female hop cultivar with quality and aroma characteristics similar to its female parent Hallertaur mittelfrühr. Its genetic composition is 4/6 Hallertaur mittelfrühr, 1/6 Early Green, and 1/6 unknown.

Mt. Hood has been tested in nursery plots near Corvallis, OR since 1985 and in 1.2 ha commercial plots in the major hop growing areas of Oregon, Washington, and Idaho, respectively.

Mt. Hood is well adapted to the major U.S. hop growing areas in the Pacific Northwest. The main advantages of Mt. Hood are its higher yield potential and its similarity to imported European aroma hops that until recently have never been available in sufficient quantities to U.S. brewers.

In the spring, Mt. Hood plants produce abundant numbers of erect shoots that are ready for training in early to mid-May. They rapidly climb a supporting string and reach the top of the trellis (5.5 m) in late June or early July. Flowering starts about 5–10 July and continues for about 2 wk. Sidearms average from 50 to 120 cm in length with good primary and secondary branching. Cones are seedless, even in the presence of fertile diploid males, but may contain an occasional seedlike structure from stimulation due to pollination that, however, rarely contains a viable embryo.

Mt. Hood is moderately resistant to hop downy mildew (incited by Pseudoperonospora humuli Miy. et Tak. G. W. Wilson). Systemic infection of established cones has never been observed in Mt. Hood. Occasional infection of shoots in the spring can easily be controlled with fungicides registered for use in hops. No symptoms of verticillium wilt (incited by various Verticillium spp.) have been observed in any nursery or field plots.

Detailed serological tests involving the ELISA technique over a 3-yr period have shown that Mt. Hood is free of the Apple and Cherry serotypes of Prunus necrotic ringspot virus and is also free of other major hop viruses such as hop mosaic virus, hop latent virus, and American hop latent virus. The lower leaves of mature plants of Mt. Hood occasionally show a slight yellow-fleck pattern, which is believed to be due to physiological causes.

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