REGISTRATION OF KOMBAR BARLEY
(Reg. No. 149)
R. W. Matchett and O. P. Cantu

'Kombar' barley (Hordeum vulgare L.) CI 15694, was developed by Northrup, King & Co. and tested under the designation of experimental 314. Kombar was selected in 1972 as an F₁ line from the cross Minnesota 64-98-8 × 'Briggs' made at Woodland, Calif. in 1969. It has been evaluated in Calif. and Ariz. yield trials since 1973. Kombar has been evaluated in both Univ. of California Agric. Exp. Stn. trials and those conducted by Northrup, King & Co.

Kombar is a six-rowed, semi-smooth awned, midseason to late maturing feed barley. It is of spring growth habit, midtall and has stiff, strong straw. The spike is lax, midlong and strongly inclined at maturity. The midlong, white hulled kernels have slightly wrinkled lemmas, long haired rachillas and colorless aleurone. Kombar was moderately susceptible to the races of scald, Rhynchosporium secalis, prevailing in California in 1974 and 1975. It appears to have some field tolerance to the barley yellow dwarf virus.

Kombar has outyielded both Briggs and 'CM67' in Calif. yield trials. In 2 years of yield testing in Calif., Kombar averaged 128% of Briggs at two Sacramento Valley locations and 125% of CM67 at three San Joaquin Valley locations. Also, Kombar outyielded check cultivars in extensive tests conducted in Ariz.

Kombar is recommended for irrigated culture in Calif. and Ariz.

Breeder seed of Kombar will be maintained by Northrup, King & Co. at the Woodland Research Station in Woodland, Calif. Application has been made to the USDA for a Plant Variety Protection Certificate.

REGISTRATION OF BANFF KENTUCKY BLUEGRASS
(Reg. No. 13)
J. B. Lebeau and M. R. Hanna

'Banff' Kentucky bluegrass (Poa pratensis L.) is a dwarf cultivar developed as a lawn and fairway grass at the Agriculture Canada Research Station, Lethbridge. It was selected from a green on the Banff Springs Golf Course in Banff National Park, Alberta in 1968. This green had been seeded many years earlier to Colonial bent (Agrostis tenuis Sibth.) but had been invaded by Kentucky bluegrass over a period of years. Before the Kentucky bluegrass strain was selected, the golf green had been subjected to heavy watering, close clipping, heavy N fertilization, and exposure to severe attacks by snow-mold pathogens for about 20 years. Thus, the strain had evolved under selection pressures imposed by competition, intensive management, and disease. Reselection within the original material was carried on until the degree of uniformity indicated that the selections were at pure breeding stage. The selection was designated B101 and evaluated in a 10-hill yield trial near Corvallis, Ore. in 1972. In the following year, the strain was subjected to heavy watering, close clipping, heavy N fertilization, and exposure to severe attacks by snow-mold pathogens. This led to the release of the strain as 'Banff'

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'Banff' Kentucky bluegrass was released as a new variety in 1976.

REGISTRATION OF COLUMBIA
(Reg. No. 5)
Alfred Haunold, S. T. Likens, C. E. Zimmermann, and D. D. Roberts

'Columbia' is a female, triploid, nearly seedless hop variety (Humulus lupulus L.). It was selected in 1969 from a cross in 1967 between the colchicine-induced autotetraploid hop variety 'Fuggle T' and a male hop of unknown origin. Columbia was discovered as a volunteer seedling and is presumed to have arisen from open-pollination. Columbia consists of two-thirds Fuggle germplasm with Fuggle cytoplasm, and has a chromosome complement of 2n = 3x = 30.

Columbia was originally tested as Selection 67-6761-61 in 1971 at the ARS-USDA facility at Prosser, WA 99350. The cultivar was developed to offer the opportunity of growing a hop variety with an aroma profile similar to that of the low yielding Fuggle and imported European hops which frequently are available to U.S. brewers only at premium prices. The genetic sterility of Columbia should enable growers to earn the customary premium for seed while fertile pollen is present from fields where it is used to stimulate cone size and seed set.

Columbia has been tested in small commercial plots in the Willamette Valley and near Grants Pass, Oregon; in the Yakima Valley of Washington since 1971; and in Idaho since 1973. Commercial 0.8 ha (2-acre) test plots are established at two locations in the Willamette Valley in 1973. Columbia matures medium to late and has a vigorous growth habit with long sidearms, good cone set, and is easily propagated by layering or from softwood cuttings. The cultivar produces many large shoots in early season and frequently forms a head of foliage, resulting in a crop being near the top of the trellis.

Columbia is resistant to crown and compression midew (incited by Pseudoperonospora humuli), and moderately susceptible to Verticillium albo-atrum R. & B. and Verticillium dahliae. Columbia has exhibited Verticillium wilt symptoms such as variegated foliage, stunting, and reduced yields in infected plots.

Columbia was selected in 1969 for its high aroma profile and was released as a variety in 1976.