REGISTRATION OF KARLA BARLEY

'KARLA' BARLEY (Hordeum vulgare L.) (Reg. no. 194, CI 15856) was developed cooperatively by USDA-ARS and the Idaho Agric. Exp. Stn. It was released in 1981 by these agencies and by the Oregon and Utah Agric. Exp. Stns. The USDA Barley and Malt Laboratory, Madison, WI, and the Malting Barley Improvement Association (MBIA) (now the American Malting Barley Association), Milwaukee, WI, cooperated in testing its malting and brewing quality. Plantscale evaluations of malting and brewing quality were initiated in 1980 in cooperation with the MBIA. Great Western Malting Co., Vancouver, WA, assisted with the field-scale seed increases needed for plant-scale evaluations. Karla was recommended as acceptable for malting and brewing by the MBIA in November 1982.

Karla originated as a BC,F, selection from a cross of 63Ab2987-9/2* 'Conquest' made at Aberdeen, Idaho in 1972. The parent 63Ab2987-9 is a sister selection to 'Karl'. Conquest was developed at Brandon, Manitoba by the Canada Department of Agriculture. Karla was tested as 74Ab4302. It was first entered in replicated trials at Aberdeen in 1976 and was tested in the regional Western Spring Barley Nursery and the Western Dryland Barley Nursery in 1979 and 1980.

Karla is a six-rowed, midseason, spring malting barley. The semierect spikes are lax and mid-long to long with smooth awns and smooth rachis edges. Kernels have a white aleurone and long hairs on the rachilla. The lemma or hull is adhering and wrinkled, with moderately prominent lateral veins which have few barbs. The glume has relatively short hairs confined to the midline of the glume. The crease is relatively narrow, closed at the base, and flaring toward the awn end. The point of attachment is a depression tending to be a transverse crease. Lateral kernels are moderately twisted.

Karla heads 3 days later than 'Steptoe' in southern Idaho. It is similar to Steptoe in test weight, but lower than Steptoe in plump barley percent. Karla averaged 97 cm in height vs 91 cm for Steptoe in irrigated trials at Aberdeen in 1978-1982, but is superior to Steptoe in resistance to lodging. Karla is less susceptible than Karl to skinning, i.e., mechanical damage to the lemma in harvesting and handling, and it is superior in resistance to both shattering and lodging to Karl and most six-rowed malting barley cultivars with which it has been compared. Karla is susceptible to powdery mildew (caused by Erysiphe graminis DC. ex Mérat f. sp. hordei Em. Marchal) and bacterial leaf streak (caused by Xanthomonas campestris pv. translucens (Jones et al.) Dye). It has greater resistance to discoloration from weathering than Karl, but is more susceptible than Karl to black point (caused by Alternaria hordei).

Registration of Crop Cultivars

REGISTRATION OF 'LEWIS' BARLEY

'LEWIS' barley (Hordeum vulgare L.) (Reg. no. 193, CI 15860) was developed cooperatively by USDA-ARS and the Idaho Agric. Exp. Stn. It was released in 1981 by these agencies and by the Oregon and Utah Agric. Exp. Stns. The USDA Barley and Malt Laboratory, Madison, WI, and the Malting Barley Improvement Association (MBIA) (now the American Malting Barley Association), Milwaukee, WI, cooperated in testing its malting and brewing quality. Plantscale evaluations of malting and brewing quality were initiated in 1980 in cooperation with the MBIA. Great Western Malting Co., Vancouver, WA, assisted with the field-scale seed increases needed for plant-scale evaluations. Karla was recommended as acceptable for malting and brewing by the MBIA in November 1982.

Karla originated as a BC,F, selection from a cross of 63Ab2987-9/2* 'Conquest' made at Aberdeen, Idaho in 1972. The parent 63Ab2987-9 is a sister selection to 'Karl'. Conquest was developed at Brandon, Manitoba by the Canada Department of Agriculture. Karla was tested as 74Ab4302. It was first entered in replicated trials at Aberdeen in 1976 and was tested in the regional Western Spring Barley Nursery and the Western Dryland Barley Nursery in 1979 and 1980.

Karla is a six-rowed, midseason, spring malting barley. The semierect spikes are lax and mid-long to long with smooth awns and smooth rachis edges. Kernels have a white aleurone and long hairs on the rachilla. The lemma or hull is adhering and wrinkled, with moderately prominent lateral veins which have few barbs. The glume has relatively short hairs confined to the midline of the glume. The crease is relatively narrow, closed at the base, and flaring toward the awn end. The point of attachment is a depression tending to be a transverse crease. Lateral kernels are moderately twisted.

Karla heads 3 days later than 'Steptoe' in southern Idaho. It is similar to Steptoe in test weight, but lower than Steptoe in plump barley percent. Karla averaged 97 cm in height vs 91 cm for Steptoe in irrigated trials at Aberdeen in 1978-1982, but is superior to Steptoe in resistance to lodging. Karla is less susceptible than Karl to skinning, i.e., mechanical damage to the lemma in harvesting and handling, and it is superior in resistance to both shattering and lodging to Karl and most six-rowed malting barley cultivars with which it has been compared. Karla is susceptible to powdery mildew (caused by Erysiphe graminis DC. ex Mérat f. sp. hordei Em. Marchal) and bacterial leaf streak (caused by Xanthomonas campestris pv. translucens (Jones et al.) Dye). It has greater resistance to discoloration from weathering than Karl, but is more susceptible than Karl to black point (caused by Alternaria hordei).