REGISTRATION OF KLONDIKE BARLEY
(Reg. No. 174)

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KLONDIKE barley (Hordeum vulgare L.), CI 15284 (CN 452, BT 323, Br. YG 5-4), was developed at the Agriculture Canada Research Station, Brandon, Manitoba, Canada, which is part of the Eastern Prairie Barley Group. It was released in 1976.

Klondike is a six-rowed, smooth awned, spring barley that does not meet Canadian malting quality standards.

Klondike is resistant to Puccinia graminis f. sp. tritici Eriks, and E. Henn. It has resistance from the cultivar 'Jet' (CI 967) to Ustilago nuda (Jens.) Rostr., but is susceptible to some collections of this pathogen made in Canada since 1972. It is moderately susceptible to Ustilago hordei (Pers.) Lagerh. and Ustilago nigra Tapke. It has some field resistance to Pyrenophora teres (Pied.) Drechs., Cochliobolus sativus (Ito and Kurib.) Drechs. ex Dastur, and Septoria passerinii Sacc. It is moderately susceptible to Puccinia hordei Otth. and Erysiphe graminis (D.C.) ex Merat f. sp. hordeti Em. Marchal. Its resistance to common root rot (caused by Helminthosporium species), as evidenced by subcrown internode staining, is intermediate between 'Bonanza' and its parent Galt.

Klondike was released because of its high yield across the Canadian prairies, particularly in the eastern and central provinces, where in licensing trials, 1973 to 1975, it outyielded the highest yielding check, Bonanza, by 7%. Klondike has had increasing acceptance by producers in Manitoba and parts of Alberta, reaching 7.0 and 3.4% of the barley hectarage in these respective provinces in 1979.

Klondike is mid-late in maturity, being about 1 day later and 8 cm shorter than Bonanza.

The principle spike and kernel characteristics are as follows:

Spike: Six-rowed, mid-long, mid-lax to lax, base emerges 2 to 12 cm, semi-erect; lemma awn long, smooth up to one-fourth the distance from the tip; glume awns two to four times the length of the glume; glume hairs short, numerous, generally confined to a broad band; rachis edges have a moderate to numerous number of very fine short hairs.

Kernels: Hulled, mid-size; hull smooth to slightly wrinkled; aleurone white; rachilla mid-long, few long; hairs short; barbs on lateral veins few to 15; basal marking on incomplete horseshoe depression; test weight slightly superior to Bonanza; percent seed over a 2.38 mm slotted screen inferior to Bonanza.

Breeder seed is being maintained by the Seed Section, Agriculture Canada Research Station, Box 440, Regina, Saskatchewan S4P 3A2, Canada.

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