REGISTRATION OF CULTIVARS

Registration of ‘Tercel’ Barley

‘Tercel’ barley (Hordeum vulgare L.) (Reg. no. CV-273, PI 599202) is a two-row, hulless, spring-habit feed cultivar released in 1997 by the Field Crop Development Centre of Alberta Agriculture, Food and Rural Development, Lacombe, AB, Canada (Canadian Reg. no. 4610). It was selected from the cross WA7698-62/RPB 222-69//Clipper/APM-IB65 made in 1981. The first and second crosses were made at Oregon State University, Corvallis, OR, in 1970 and 1971. WA7698-62 is a line originated from Washington State University, Pullman, WA. The line RPB 222-69 is a short-stature, introduced European line of unknown parentage. Clipper/APM-IB65 is a hulless line from the International Maize and Wheat Improvement Center (CIMMYT), Mexico, introduced in 1979. Using a modified bulk breeding method, seed from F1 plants was bulked to form the F2 generation grown at Lacombe in 1982. Head selections were harvested and bulked in nurseries alternating between Alberta and California. In the F1 generation, grown at Lacombe in 1988, head selections were made for line development. Subsequent F12 head-rows, including the one that became Tercel, were planted at Lacombe in 1989 and were advanced to yield testing. Selections were made in the F12 and following generations for yield, maturity, test weight, protein content, straw strength, threshability, and leaf disease resistance. Breeder seed of Tercel was derived from a bulk of 191 F15 lines.

Tercel is a rough-awned, midseason, medium-height cultivar. It has a green coleoptile and a semierect juvenile growth habit. Its flag leaf is dark green, narrow, long, and of semierect attitude. The auricle is white, with a waxy sheath. Leaves are green, narrow, and long, with glabrous green sheaths and blades. Stems are green and waxy, with an average thickness of 2 mm. Culms generally have five nodes, a closed collar shape, a slightly undulated neck, and an exsertion above the base of the flag leaf blade of 3 to 10 cm. Tercel’s spikes are dense, nodding, and of medium length, with kernels overlapping at the tip. Lemma awns are long, with purplish tips. It has few barbs on the laterals veins. Glume awns are rough and as long as the glume. Kernels are hulless, medium long, and medium wide, with a yellow aleurone and a transverse crease at the base. The rachilla is short, with long hairs.

Tercel was tested from 1989 to 1993 as H81044007N in the Alberta Regional yield trials, and as HB605 from 1994 to 1996 in the Western Cooperative Hulless Barley Test (WCHBT). In 35 site-years of the WCHBT including Manitoba, Saskatchewan, and Alberta production areas, Tercel yielded 5111 kg ha−1, 104% of the predominant two-row hulless check ‘Condor’, and 99% of the yield of six-rowed check ‘Firlbecks III’. In the Alberta production years, Tercel had a yield of 5111 kg ha−1, 95% of the yield of six-rowed check ‘Firlbecks III’. It had a lodging score of 3.2, on a scale of 0 to 9 (0 = fully resistant to lodging, 9 = fully lodged), compared with 2.6 for Condor and 2.0 for Venus.

Tercel is moderately susceptible to common root rot [caused by Puccinia graminis Pers.:Pers. f. sp. tritici Erb.] (non-QCC) and net blotch (caused by Pyrenophora teres Drechs.). It is susceptible to loose smut [caused by Ustilago nuda (C.N. Jensen) Rostr.], and loose eyes (caused by Septoria passerinii Sacc.).

Breeder seed of Tercel is being maintained by the Field Crop Development Centre of Alberta Agriculture, Food and Rural Development, Lacombe, AB. Distribution rights are held by Progressive Seed Ltd., Box 1237, Three Hills, AB, Canada. Limited quantities of seed are available upon request from the corresponding author for at least 5 years.

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References and Notes

1. Alberta Agriculture, Field Crop Development Centre, Lacombe, AB, T4L 1W8, Canada. Registration on file is on file in May 1998. *Corresponding author (corztet@agric.gov.ab.ca).

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Registration of ‘GA-Luttrell’ Barley

‘GA-Luttrell’ barley (Hordeum vulgare L.) (Reg. no. CV-274, PI 602058) is a winter feed cultivar developed at the Georgia Agricultural Experiment Station in cooperation with USDA-ARS and was released in 1994. GA-Luttrell is derived from a single cross ‘Volbar’/‘Sussex’ made in 1981 to honor E.S. Luttrell, a former plant pathologist at the Georgia Station, Griffin.

GA-Luttrell was developed using a modified bulk breeding method. Individual spike selections were maintained as F4, and F5 generations at Griffin. GA-Luttrell is the progeny of two crossing the southern and eastern USA in the USDA Uniform Winter Barley Yield Nursery in 1992 through 1994.

GA-Luttrell is an awned, six-rowed, winter feed barley. It has a green coleoptile and a semierect juvenile growth habit. Its flag leaf is dark green, narrow, and of semierect attitude. The auricle is white, with a waxy sheath. Leaves are green, narrow, and long, with glabrous green sheaths and blades. Stems are green and waxy, with an average thickness of 2 mm. Culms generally have five nodes, a closed collar shape, a slightly undulated neck, and an exsertion above the base of the flag leaf blade of 3 to 10 cm. GA-Luttrell’s spikes are dense, nodding, and of medium length, with kernels overlapping at the tip. Lemma awns are long, with purplish tips. It has few barbs on the laterals veins. Glume awns are rough and as long as the glume. Kernels are hulless, medium long, and medium wide, with a yellow aleurone and a transverse crease at the base. The rachilla is short, with long hairs.

GA-Luttrell was tested from 1989 to 1993 as H81044007N in the Alberta Regional yield trials, and as HB605 from 1994 to 1996 in the Western Cooperative Hulless Barley Test (WCHBT). In 35 site-years of the WCHBT including Manitoba, Saskatchewan, and Alberta production areas, Tercel yielded 5111 kg ha−1, 104% of the predominant two-row hulless check ‘Condor’, and 99% of the yield of six-rowed check ‘Firlbecks III’. In the Alberta production years, Tercel had a yield of 5111 kg ha−1, 95% of the yield of six-rowed check ‘Firlbecks III’. It had a lodging score of 3.2, on a scale of 0 to 9 (0 = fully resistant to lodging, 9 = fully lodged), compared with 2.6 for Condor and 2.0 for Venus.

Tercel is moderately susceptible to common root rot [caused by Puccinia graminis Pers.:Pers. f. sp. tritici Erb.] (non-QCC) and net blotch (caused by Pyrenophora teres Drechs.). It is susceptible to loose smut [caused by Ustilago nuda (C.N. Jensen) Rostr.], and loose eyes (caused by Septoria passerinii Sacc.).

Breeder seed of Tercel is being maintained by the Field Crop Development Centre of Alberta Agriculture, Food and Rural Development, Lacombe, AB. Distribution rights are held by Progressive Seed Ltd., Box 1237, Three Hills, AB, Canada. Limited quantities of seed are available upon request from the corresponding author for at least 5 years.

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