Registration of 'AC Albright' Barley

'AC Albright' six-row spring barley (*Hordeum vulgare* L.) (Reg. no. CV-263, PI 592796) (Plant Gene Resources of Canada no. PGR27230) was developed from a single-plant selection of the early-maturing cultivar Otal (1,2) made at the Northern Agriculture Research Centre, Agriculture and Agri-Food Canada, Beaverlodge, AB, in 1984. It is from the cross ‘Otra’/6/(Weibull 1514-64)‘Morgenroth’/5/‘Tammi’/4/‘Maja’/3/ ‘Opal’/2/‘Hanna’/1/‘Svanhals’. It was registered (Canadian Reg. no. 3703) for sale in Canada on 19 Feb. 1993. AC Albright is classed as a feed barley, in that it does not meet Canadian malting quality standards.

For most morphological characteristics, AC Albright is indistinguishable from Otal. Spikes of AC Albright are six-rowed, medium length, and lax to medium dense, with lateral kernels overlapping at the tip. Lemma awns are long and rough. Glumes are one-half to three-quarters the length of the lemma, and covered with short hairs. Glume awns are rough, purplish at the tip, and about three times the length of the glume. (In contrast, Otal has both long and short glume awns, being heterogeneous for this characteristic.) Kernels of AC Albright are hulled and midsize to small, with white aleurone. The rachilla is midlong with short hairs. Lemma veins are purplish with few barbs. The lemma is smooth to finely wrinkled and the palea is finely wrinkled. The basal marking is an incomplete horseshoe depression. During the grain-filling period in the field, the heads of both AC Albright and Otal are nodding. AC Albright appears somewhat more uniform in height, and slightly more uniform (but later) in mean heading date and maturity.

AC Albright was tested as Otal-1 at Beaverlodge in 1986 and under the same designation in 1987 in the Northwestern Canada Barley Test. In 1988, it was reentered into this test as ‘NoTal-L’. It was tested as BT670 in the Western Cooperative Six Row Barley Registration Test, from 1989 to 1991, and has been in the six-row barley test of the Alberta Regional Variety Trials from 1990 through 1995. Breeder seed was developed from 220 head selections taken in 1988 from the Northwestern Canada Barley Increase Test at Beaverlodge, AB. Progeny of 202 of these were bulked in 1991 to form breeder seed.

From 1990 to 1992, in Areas 3 to 6 of the Alberta Regional Variety Tests, comprising the north-central and northwestern parts of the province (Area 5 includes the Peace River region of northeastern British Columbia), AC Albright yielded 4465 kg ha⁻¹ (56 trials) and matured in 85 d (30 trials) (3). This was 9% higher yield and 2 d later maturity than Otal. In these same tests, AC Albright yielded 103% of the early-maturing cultivar Jackson (maturing in the same number of days), 99% of 'AC Stacey' (maturing 1 d earlier), 89% of the top-yielding malting cultivar Duel (maturing 6 d earlier), and 83% of the top-yielding feed cultivar AC Lacombe (maturing 7 d earlier). Grain-volume weight of AC Albright averaged 62.1 kg hL⁻¹, compared with 61.9 for Otal, 62.5 for Jackson, 60.6 for AC Stacey, and 59.8 for Duel and AC Lacombe (53 comparisons). Seed weight averaged 34.2 mg for AC Albright, compared with 34.3 for Otal, 38.9 for Jackson, 34.8 for AC Stacey, 35.9 for Duel, and 34.6 for AC Lacombe.

References and Notes

4. R.I. Wolfe, Agric. & Agri-Food Canada, Field Crop Research Centre, Agriculture and Agri-Food Canada, Beaverlodge, AB, and the Northern Agriculture Research Centre, Agriculture and Agri-Food Canada, Beaverlodge, AB, and the Western Cooperative Six-Row Barley Registration Trials as BT664 in 1985, BT663 in 1986, and BT660 in 1987. Progeny of 193 of these were bulked to form the cultivar.

Registration of 'AC Stacey' Barley

'AC Stacey' six-row spring barley (*Hordeum vulgare* L.) (Reg. no. CV-264, PI 592797) (Plant Gene Resources of Canada no. PGR26729) was developed at the Northern Agriculture Research Centre, Agriculture and Agri-Food Canada, Beaverlodge, AB, and was registered for sale in Canada in 1989 (Canadian Reg. no. 3751). Breeder seed was tested in 1983 at Beaverlodge as Bv.B57814-2, in 1984 in Areas 1 to 5 of the Alberta Regional Variety Tests, comprising the north-central and northwestern parts of the province, and in 1985 and BT663 in 1986.

AC Stacey is from the cross 'Otal'/Melvin'. It was selected as a single F₆ plant in 1981 from a single-seedling plant of the cross. Previously, plants in the bulk were selected for earliness, vigor or high number of tillers, freedom from disease, and a visual impression of agronomic excellence. Breeder seed was developed from 217 head selections taken from 1984. Progeny of 193 of these were bulked to form breeder seed.

AC Stacey is a hulled, early maturing, spring habit, Feed barley. It has great juvenile growth and grain yield.

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