CROP REGISTRATIONS


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Registration of ‘AC Hawkeye’ Barley

‘AC Hawkeye’ (Reg. no. CV-271, PI 600680) is a six-row hulless spring barley (Hordeum vulgare L.) cultivar developed at the Agriculture and Agri-Food Canada (AAFC) Research Centre, Brandon, MB; it was registered on 15 Nov. 1996 by the Canadian Food Inspection Agency, Ottawa, ON. AC Hawkeye was tested at Brandon and in the Western Hulless Barley Cooperative Test (WCHBRT) in 1994 based on merit for yield and agronomic performance. Published September, 1998.

AC Hawkeye originated from a single plant selected from the F3 population based on visual assessment for spike size and conformity, number of fertile tillers, vigor, and relative absence of disease. AC Hawkeye was selected from the cross ‘Conquest’/‘Post’/‘Viriden’/3/’G1-1’/’Tupper’. Line G01-1 is a sibling of ‘Klondike’. Tupper is the source of the hulless character.

The hybrid population (Brandon No. H67) was developed by hand crossing in controlled environment facilities at the Brandon Research Centre, AAFC, in 1987. Fifty-six F1 seed were planted in the greenhouse and harvested in bulk. F2 seed were planted in the field as a single 3-m-long row and were bulk-harvested. The procedure was repeated for the F3 generation using two rows 3 m long. Fifteen hundred seeds were chosen at random from the F3 bulk sample and were grown as F4 spaced plants with 1-m spacing. AC Hawkeye originated from a single plant selected from the F4 population based on visual assessment for spike size and conformity, number of fertile tillers, vigor, and relative absence of disease. F4 selections were grown as plots 3 m long and 1 m wide in a nearest-neighbor design, with CDC Buck as the check cultivar repeated every 20 plots. A single plot (H67-3) was selected from this F4 population on the basis of superior agronomic performance relative to CDC Buck, including yield, straw strength, test weight, maturity, and percent hull retention. H67-3 was tested in a replicated field trial in Brandon in 1991. H67-3 was tested also in the laboratory for resistance to a wide variety of foliar, spike, and root pathogens. H67-3 was then tested at two locations in 1992 (Brandon, MB; Oak River, MB) and advanced to the Eastern Prairie Barley Test (EPBT) in 1993 on the basis of merit for yield and overall agronomic performance. The EPBT was grown at seven locations in Manitoba and Saskatchewan. H67-3 was then advanced as HB 103 to the Western Cooperative Hulless Barley Registration Test (WCHBRT) in 1994 based on merit for yield and kernel quality.

Over three years of evaluation in the WCHBRT, AC Hawkeye was higher yielding than Falcon (the high-yielding check cultivar) and the breeder seed of AC Hawkeye. Breeder seed is being maintained by AAFC at the Indian Head Research Farm, Saskatchewan, Canada. The Canadian distributor for AC Hawkeye is Alfa Seeds, Inc., Ultrabred Div., Alberta Wheat Pool, Camrose Unit, 4715 65th Street, Camrose, AB, Canada, T4V 1P4.

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References and Notes

1. AAFC, Brandon Research Centre, Box 1000A, R.R. 7, Brandon, Canada, R7A 5Y3. Registration by CSSA. Accepted 28 Feb. 1998. *Corresponding author (MTherrien@em.agr.ca).

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Registration of ‘AC Rosser’ Barley

‘AC Rosser’ (Reg. no. CV-272, PI 600679) is a six-row hulless spring barley (Hordeum vulgare L.) cultivar developed at the Agriculture and Agri-Food Canada (AAFC) Research Centre, Brandon, MB; it was registered on 20 Jan. 1997 by the Canadian Food Inspection Agency, Ottawa, ON. AC Rosser was tested at Brandon and in the Western Cooperative Six-Row Barley Registration Test (WCSBRT) in 1994 based on merit for yield and overall agronomic performance. AC Rosser was selected from the cross ‘Steptoe’/‘Condor’/3/’Falcon’/’Brier’/’Heartland’/3/’Galt’/’Johnston’, Line BT 351 is the source of ‘Bona Ref’/’Bonanza’/WA6415-66/ND 136. WA6415-66 is a selection from West Dakota State University and ND 136 is a selection from the Dakota State University.

The hybrid population (Brandon cross F180) was developed by hand crossing in controlled environment facilities at the Brandon Research Centre, AAFC, in 1987. Forty-two F1 seed were planted in the greenhouse and harvested in bulk. F2 seed were planted in the field as a single 3-m-long row and were bulk-harvested. The procedure was repeated for the F3 generation using two rows 3 m long. Fifteen hundred seeds were chosen at random from the F3 bulk sample and were grown as F4 spaced plants with 1-m spacing. AC Rosser originated from a single plant selected from the F4 population based on visual assessment for spike size and conformity, number of fertile tillers, vigor, and relative absence of disease. F4 selections were grown as plots 3 m long and 1 m wide in a nearest-neighbor design, with CDC Buck as the check cultivar repeated every 20 plots. A single plot (F180-2) was selected from this F4 population on the basis of superior agronomic performance relative to CDC Buck, including yield, straw strength, test weight, maturity, and percent hull retention. F180-2 was tested in a replicated field trial in Brandon in 1991. F180-2 was tested also in the laboratory for resistance to a wide variety of foliar, spike, and root pathogens. F180-2 was then tested at two locations in 1992 (Brandon, MB; Oak River, MB) and advanced to the Western Cooperative Barley Registration Test (WCRBT) in 1993 based on merit for yield and overall agronomic performance. The WCRBT was grown at seven locations in Manitoba and Saskatchewan. F180-2 was then advanced as HB 103 to the Western Cooperative Hulless Barley Registration Test (WCHBRT) in 1994 based on merit for yield and kernel quality.

Over three years of evaluation in the WCHBRT, AC Rosser was higher yielding than Falcon (the high-yielding check cultivar) and the breeder seed of AC Rosser. Breeder seed is being maintained by AAFC at the Indian Head Research Farm, Saskatchewan, Canada. The Canadian distributor for AC Rosser is Alfa Seeds, Inc., Ultrabred Div., Alberta Wheat Pool, Camrose Unit, 4715 65th Street, Camrose, AB, Canada, T4V 1P4.

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References and Notes

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