Registration of ‘AC Reed’ Spring Wheat

‘AC REED’ (Reg. no. CV-786, PI 560334), a soft white spring wheat (*Triticum aestivum* L.), was developed at the Research wheat Variety Registration Office, Plant Products Division, Food Production and Inspection Branch, Agriculture Canada, Lethbridge, Alberta. Registration no. 3499 was issued for AC Reed on 20 Dec. 1991 by the Variety Registration Office, Plant Products Division, Food Production and Inspection Branch, Agriculture Canada, Ottawa.

AC Reed was developed from a single plant selection made in an F4 bulk of a four-way cross ‘PT303’/‘Dirkwin’/‘Kenya 321’/‘Fieldwin’. An F4-derived F6 line, designated as 83351-796, was tested in preliminary and advanced yield trials in 1986 and 1987, respectively. From 1988 to 1990, it was evaluated in Western Soft White Spring Wheat Cooperative Tests as SWS-87.

AC Reed is an awned, semidwarf wheat adapted to irrigated regions of southern Alberta and Saskatchewan. It yielded 6% more than ‘Fielder’ and 1% less than ‘Owens’ in 3 yr of Western Soft White Spring Wheat Cooperative Tests. It averaged 74 cm in height, and matured 2 d earlier than Fielder and Owens. Its lodging resistance is similar to that of Fielder, and better than Owens. AC Reed has better shattering and sprouting resistance than Fielder.

The spikes are oblong to tapering, middense, midlong, erect to seminodding, glabrous, and white at maturity; glume shoulders are elevated, mid-wide; glume beaks are narrow and acute. The kernels are soft, creamy white, midsize, midlong, mid-wide, and ovate; the germ size is small to midsize, and ovate; the cheeks are rounded to angular; the brush hairs are small to midsize, and midlong; and the crease is midwide to wide, and middeep.

AC Reed is resistant to prevalent races of stripe rust (caused by *Puccinia striiformis* Westend.) under field conditions. However, approximately 2% of seedlings showed a low level of infection when inoculated with the pathogen under controlled conditions, in which the checks (Fielder and Owens) were 99 to 100% susceptible. AC Reed is moderately resistant to powdery mildew (caused by *Erysiphe graminis* DC. f. sp. *tritici* Ém. Marchal) and common root rot (caused by *Cochliobolus sativus* (Ito & Kuribayashi) Drechs. ex Dastur). It is susceptible to leaf rust (caused by *Puccinia recondita* Roberge ex. Desmaz.), stem rust (caused by *Puccinia graminis* Pers.:Pers.), loose smut (caused by *Ustilago tritici* (Pers.) Rostr.), black point (caused by *Alternaria alternata* (Fr.:Fr.) Keissl.), and common bunt caused by *Tilletia laevis* Kühn in Rabenh. and *T. caries* (DC) Tul. and C. Tul.

AC Reed is superior to the standard check cultivar Fielder in overall cookie quality, flour yield, falling number, sprouting resistance, and similar or superior in flour ash, color, and water absorption (1).

Breeder seed derived from a bulk of 221 head rows will be maintained by the Agriculture Canada Experimental Farm, at the Research Wheat Quality Laboratory, Wooster, OH. Breeder seed of GA-Gore will be maintained by the Georgia Agricultural Experiment Station, University of Georgia Station, Griffin, GA 30223-1797.


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