some rough-awned cultivars. The palea is smooth to finely wrinkled. The rachilla is medium long, with short hairs. A small proportion of the rachillae are aborted. The aleurone is yellow. The glumes are about one-half to two-thirds the length of the lemma and are covered with short hairs; glume awns are rough, about equal to the glume in length, and green at the tip. The rachis segments are tapered; the edges have numerous short hairs.

In Areas 3 to 6 of the 1987 to 1989 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 Stacey yielded 4.9% more than 'Jackson' (66 trials) and matured 1.8 d later (41 trials) (1). In these same tests it yielded 89.3% of 'Duel', a top yielding midseason cultivar, and matured 6.0 d earlier. Test weights averaged 60.1 kg hl\(^{-1}\), compared with 62.2 for Jackson and 59.8 for Duel (57 comparisons). Seed weight averaged 34.3 mg, compared with 38.4 for Jackson and 38.0 for Duel (62 comparisons). Lodging resistance is fair. On a scale of 1 to 9 scale (where 1 = erect), it had a value of 3.3; the value for Jackson was 3.5, and for Duel, 3.0 (38 trials). AC Stacey is moderately short in height. It averaged 68.3 cm, 4.1 cm taller than the very short cultivar Jackson and 17.5 cm shorter than Duel (60 trials).

AC Stacey has excellent field resistance to barley leaf scald [caused by *Rhynchosporium secalis* (Oudem.) J.J. Davis]. In the trials cited above, ratings were obtained at 35 sites. On a scale of 1 to 9 scale (where 1 = scald-free leaves), AC Stacey had a value of 1.3. The value for Leduc, another resistant cultivar, was 1.4; for Jackson, it was 4.6, and for Duel, 3.7. AC Stacey is resistant to the spot-forming pathotype (857, maintained by Agriculture and Agri-Food Canada, Winnipeg) of net blotch, *Pyrenophora teres* Drechs. f. *maculata* Smedeg., and is susceptible to the two net-forming maculata pathotype (102 and 858), *P. teres* Drechs. f. *teres* Smedeg. It is susceptible to covered smut [caused by *Ustilago hordei* (Pers.) Lagerh.], false loose smut [caused by *U. avenae* (Pers.) Rostr.]; syn. *U. nigra* Tapke], and highly susceptible to loose smut [caused by *U. tritici* (Pers.) Rostr.; syn. *U. nuda* Jens. (Rostr.). It is susceptible to barley leaf stripe [caused by *Drechslera graminea* (Rabenh.) Shoemaker; syn. *Helminthosporium gramineum* Rabenh.], common root rot [caused by *Cochliobolus sativus* (Ito & Kuribayashi) Drechs. ex Dastur and *Fusarium* spp.] as evidenced by subcrown internode staining, and to stem rust [caused by *Puccinia graminis* Pers. f. sp. *tritici* Eriks. & E. Henn.].

Breeder seed of AC Stacey is maintained at the Experimental Farm, Agriculture and Agri-Food Canada, Indian Head, SK SOG 2K0. Responsibility for distribution to growers of pedigreed seed, 270 seeds were randomly chosen from an advanced bulk of these trials, where data were taken, Jackson's lodging resistance was 83%; for Leduc, 91%; and for Johnston, 82% (41 comparisons). Jackson yielded only 80% of Leduc, but matured 5 d earlier (36 trials), and yielded 77% of Johnston (maturity 8 d earlier). In 24 of these trials, where data were taken, Jackson's lodging resistance score, 2.3 (where 1 = erect and 9 = completely lodged), was superior to those of Leduc (3.2) and Johnston (3.8). Jackson's grain-volume weight of 62.3 kg hl\(^{-1}\) was heavier than that of Leduc at 61.3 kg hl\(^{-1}\), and the same as that of Johnston at 62.2 kg hl\(^{-1}\) (41 comparisons). Jackson's mean seed weight of 38.6 mg was lighter than that of Leduc at 42.5 mg, and similar to that of Johnston at 38.1 mg (41 comparisons). Jackson is short in stature. In these tests, it averaged 65 cm; Leduc averaged 74 cm and Johnston 81 cm. Plumpness was measured in these trials as the percent of seed remaining above a 2.4-mm slotted sieve. The value for Jackson was 83%; for Leduc, 91%; and for Johnston, 82% (41 comparisons).

Jackson is susceptible to the common barley diseases in northwestern Canada: barley leaf scald [caused by *Rhynchosporium*...