Maverick has indeterminate growth habit and classified as late Group III maturity (relative maturity 3.8) maturing 5 d later than 'Iroquois' and 6 d later than 'Jack' (5,6). At SCN-infested locations, seed yield of Maverick was 25% higher than Iroquois and 3% higher than Jack. Compared with Iroquois at SCN-noninfested locations, Maverick was similar in yield and height. Compared with Iroquois, Maverick has 11 g kg\(^{-1}\) higher seed protein content, 9 mg seed\(^{-1}\) lower seed weight, 15 cm taller plant height, and a 0.4 higher lodging score. Maverick is similar in seed quality score and seed oil concentration.

Maverick has purple flowers, grey pubescence, brown pods at maturity, and dull yellow seed with buff hilum. Maverick is resistant to pythiodora (Rps-k-gene); it is susceptible to brown stem rot (caused by Phialophora gregata (Allington & D.W. Chamberlain) W. Gams) and sudden death syndrome (caused by Fusarium solani (Fusaria nr. solani of Triticum aestivum L.) (Reg. No. CV-854, PI 596533)) is a major problem. A maximum of only 15 to 20% of a producer’s acreage is suggested to be planted to Bacup because of its lower yield and lodging susceptibility.

Bacup originated from the cross “Nuy Bay” “2375”//“Marshall” Nuy Bay is a source of resistance to scab for spread in the spike. Bacup originates from the former Pioneer spring wheat breeding program and F2 rows were evaluated for scab by the USDA-ARS, University of Minnesota spring wheat breeding program in 1990 under a naturally occurring scab infection. The F2 headrows were selected again in natural scab conditions in 1991, and selected heads were evaluated as F3 headrows in 1992 for leaf rust (caused by Puccinia recondita Roberge et Desmaz.) and stem rust (caused by Puccinia graminis Pers.:Pers.) during inoculated scab disease nursery. Bacup was tested as MN253 at three locations in 1994 and in statewide trials at seven locations in 1995. A nonpurified F7 bulk source of seed was sent to Arizona for increase in the winter of 1994–1995. Seed was increased again in 1995 in Minnesota. This bulked seed was released as Bacup in 1996. Of the plants consisting of taller and later plants are present at about 5% frequency in the population.

Bacup was tested in Minnesota statewide yield trials in 1995 and 1996 where it yielded about 18% less than ‘Grandin’ and 2375 over 11 environments. In two severe scab environments, Bacup was 11% lower yielding than 2375 and Grandin. Bacup is about 4% higher in grain volume weight (79 kg hL\(^{-1}\)), about 2 d earlier to head, and similar in plant height to Grandin. It is similar in lodging to 2375 but more susceptible than Grandin.

Bacup has long, wide, white glumes with an elevated shoulder and an acuminate beak. The spike is awned, fusiform, and middense. The kernel is red, elliptical to ovate, and midsize, with a prominent brown collar and medium in length. The brush has narrow, rounded cheeks and a narrow, middeep crease. The brush has no stem rust. Bacup displays leaf tip necrosis which has been associated with the leaf rust resistant gene L34 (1). Bacup is resistant to currently prevalent races of stem and leaf rust. It limits the spread of scab in the spike when inoculated, and after infection, maintains kernel appearance and grain volume weight. Under natural scab epidemics in Minnesota in 1995 and 1996, Bacup had the highest grain volume weight of all tested spring wheat cultivars. In scab-inoculated disease nurseries and in industry evaluations (Spring Wheat Quality Council) in 1995. Bacup had the highest grain volume weight of all tested spring wheat cultivars. In scab-inoculated disease nurseries and natural infection in 1996, Bacup had the fewest infected kernels and lowest deoxynivalenol (vomitoxin) content of all tested cultivars.

Bread-making properties of Bacup were judged acceptable in tests at the USDA Spring Wheat Quality Laboratory at Fargo, ND in 1994 and 1995, and in industry evaluations (Spring Wheat Quality Council) in 1995. Bacup is very high in protein content, about 2.0 percentage points higher than 2375 and 1.6 percentage points higher than Grandin. Flour yield is lower than Grandin and 2375, but water absorption of the flour is higher than Grandin and 2375, but somewhat weaker than Grandin. Internal and external leaf characteristics were judged to be poorer than Grandin, with more open grain and texture.

References and Notes