Registration of ‘IL 85-3132-1’
Soft Red Winter Wheat

‘IL 85-3132-1’ (Reg. no. CV-820, PI 586683) soft red winter wheat (Triticum aestivum L.) was developed by the Illinois Agricultural Experiment Station and released in 1995 for brand labeling. IL 85-3132-1 originated from the cross ‘McNair 1003’/‘Caldwell’. IL 85-3132-1 combines high yield with high test weight and intermediate maturity. IL 85-3132-1 showed stable grain yield performance in tests in Illinois from 1988 to 1994 and in regional tests from 1990 to 1993. IL 85-3132-1 is adapted to Illinois and the surrounding Midwest region.

IL 85-3132 was first selected in 1985 as an F3 headrow. Heads were selected from the F3 headrow and a single F3,4 headrow was selected in 1986 and designated IL 85-3132-1. Seed of IL 85-3132-1 was increased from the single F3,4 headrow. IL 85-3132-1 has been true-breeding; however, variants (primarily taller plants) were rogued several times during increase. Breeder seed was produced in 1994 (F12), and parent seed was produced in 1995 (F13).

The performance of IL 85-3132-1 was evaluated in breeding nursery trials in Illinois from 1988 to 1994, in variety testing trials from 1991 to 1994, in the four-state (Illinois, Indiana, Missouri, and Ohio) Regional Nursery in 1990 and 1991, and in the Uniform Eastern Soft Red Winter Wheat Nursery in 1992 and 1993. The yield of IL 85-3132-1 was equal to or better than ‘Cardinal’ in most environments within the Midwest region. In 30 performance trials throughout Illinois from 1991 to 1994, IL 85-3132-1 averaged 4347 kg ha\(^{-1}\), compared with 4011 kg ha\(^{-1}\) for Cardinal in the same trials. IL 85-3132-1 is several days earlier and 2.5 to 5 cm shorter than Cardinal. IL 85-3132-1 has high test weight. Test weight of IL 85-3132-1 has averaged 22 kg m\(^{-3}\) more than Cardinal in 30 tests in Illinois.

Coleoptiles and auricles of IL 85-3132-1 are white, and anthers are yellow. A waxy bloom is present on the stem, and internodes are hollow. Heads of IL 85-3132-1 are awnless, tapering, tan, and midlong and midwide, with a narrow shoulder and a recondite brush. Beaks of the glumes are narrow, short, and obtuse; kernels are rounded, and the crease is narrow and short; and collar is short, midsized, and collared on most kernels.

IL 85-3132-1 is moderately resistant to wheat streak mosaic virus and barley yellow dwarf virus. IL 85-3132-1 is resistant to moderately susceptible to leaf rust (caused by Puccinia recondita Roberge ex Desmaz.) and is susceptible to powdery mildew (caused by Erysiphe graminis DC. f. sp. tritici Eriks.). IL 85-3132-1 is resistant to Biotypes GP, E, and B and susceptible to Biotypes C, D, and L of the Hessian fly [(Mayetiola destructor Say)]. It has not been evaluated with other biotypes.

Based on evaluations conducted by the USDA-ARS, Quality Lab. at Wooster, OH, IL 85-3132-1 has excellent hardness and baking quality. Milling and baking quality of IL 85-3132-1 has been as good as or better than Cardinal in most environments. Breeder seed of IL 85-3132-1 will be maintained at the USDA Agricultural Experiment Station, Urbana, IL 61801. IL 61801 is licensed for nonexclusive brand labeling through Illinois Foundation Seeds, Box 722, Champaign, IL 61820.

F. L. Kolb* and C. M. Brown (1)

References and Notes

1. Dep. of Crop Sciences, Univ. of Illinois, 1102 S. Goodwin Ave., Urbana, IL 61801. Research supported in part by Illinois Foundation Seeds. Registration by CSSA. Accepted 30 Sept. 1995. *Corresponding author (Email: myu@asrr.arsusda.gov).


Published in Crop Sci. 36:469 (1996).