Registration of ‘Clemson 201’
Soft Red Winter Wheat

‘Clemson 201’ soft red winter wheat (*Triticum aestivum* L.) (Reg. no. CV-818, PI 585044) was developed by the South Carolina Agricultural Experiment Station and released in 1994. It is an increase of an F₆ headrow selected from the cross *Triticum sphaerococcum* 'Chancellor', CI 15887//Coker 78-27. The cross was made in 1979 and segregating populations were advanced by the pedigree method. CI 15887 possesses resistance to powdery mildew [caused by *Erysiphe graminis* DC. f. sp. tritici Ëm. Marchal; syn. *Blumeria graminis* (DC.) E.O. Speer] from *Triticum sphaerococcum*. Coker 78-27 is an unreleased breeding line with *Sphaerococcus*. Clemson 201 was evaluated prior to release as SC850559. It was an entry in the Uniform Southern Soft Red Winter Wheat Nursery from 1990 through 1992.

Clemson 201 is moderately winter hardy and the same maturity as 'Coker 916'. Plant height is about 0.8 cm taller than Coker 916. At maturity, stems are moderately stiff and white. Spikes are apically awnletted, middense, fusiform, and inclined. Tip awns are white and range from 9 to 20 mm in length averaging approximately 12 mm. Glumes are glabrous, midwide, and midlong to long, with smooth veins. Shoulders are narrow and wanting. Beaks are wide and obtuse. Kernels are red, midlong, and ovate; brush is midsized, midlong, and collared; crease is midwide and middeep; cheeks are rounded.

In South Carolina, Clemson 201 is moderately resistant to leaf rust and powdery mildew. It is listed by the USDA Cereal Rust Laboratory as having *Lr*9 and other, unidentified resistance. It is susceptible to Biotypes E, L, and GP of the Hessian fly ([*Mayetiola destructor* (Say)]) as determined by the Purdue University. Clemson 201 is resistant to the root race complex at the Edisto Res. & Educ. Ctr., Blackville, SC.

Clemson 201 demonstrated a 9% yield advantage over Coker 916 in South Carolina from 1990 through 1993. It was 8% greater in yield than ‘Florida 302’ in the Uniform Soft Red Winter Wheat nursery at selected locations. Test weight of IL 84-4046 has averaged 39 kg m⁻³ higher than Florida 302 in the four-state (Illinois, Indiana, Missouri, and Ohio) Regional Nursery in 1988 and 1989 and in the Uniform Southern Soft Red Winter Wheat Nursery. Based on evaluations conducted by the USDA Soft Wheat Quality Lab (at Wooster, OH), IL 84-4046 has acceptable milling and baking qualities.

Registration of ‘IL 84-4046’
Soft Red Winter Wheat

‘IL 84-4046’ (Reg. no. CV-819, PI 586682) soft red winter wheat (*Triticum aestivum* L.) was developed by the Illinois Agricultural Experiment Station and released in 1995 for brand labeling. IL 84-4046 was developed from the cross: ‘Roy’//IL 77-2656. The pedigree of IL 77-2656 is ‘Coker 68-15’//IL 69-1751. The parentage of IL 69-1751 is ‘Etoile de Choisy’//Redcoat’//Etoile de Choisy/IL 58-844. IL 84-4046 combines high yield with high test weight, moderately early maturity, and medium short plant height. IL 84-4046 showed stable performance in state tests from 1986 to 1994 and in regional tests in 1988 to 1991. IL 84-4046 is adapted to Illinois and the surrounding Midwest region.

IL 84-4046 was first selected in 1984 as an F₃ headrow. In 1988, about 400 F₆ headrows were grown, and uniform headrows were harvested and bulked. Seed from the 1988 bulked headrows was increased in 1991, and another increase was grown in 1993. Some variation for height was present; therefore, in 1994 about 1000 headrows were grown, and any headrow that differed in height from the previous headrows was discarded. Heterosis for height was observed in 1994 and 1995.

IL 84-4046 has white coleoptiles, white auricles, and yellow anthers. Heads of IL 84-4046 are awnless, tend to remain erect at maturity. Glumes of IL 84-4046 are awnletted with a narrow shoulder and oblique shape, midwide, and medium short. Kernels of IL 84-4046 are red, midlong, and ovate; brush is midsized, midlong, and collared; crease is midwide and middeep; cheeks are rounded.

Clemson 201 demonstrated a 9% yield advantage over Coker 916 in South Carolina from 1990 through 1993. IL 84-4046 is moderately resistant to wheat soilborne mosaic virus and barley yellow dwarf virus. It is moderately resistant to leaf rust (caused by *Puccinia graminis* DC. f. sp. *tritici* Em. Marchal). IL 84-4046 is susceptible to Biotypes E, L, B, and GP of Hessian fly (*Mayetiola destructor* Say) as determined by the USDA-ARS at North Central Research Laboratory, Champaign, IL, in studies with other biotypes of Hessian fly.

IL 84-4046 is moderately resistant to leaf rust (caused by *Puccinia graminis* DC. f. sp. *tritici* Em. Marchal). IL 84-4046 is susceptible to Biotypes E, L, B, and GP of the Hessian fly (*Mayetiola destructor* Say) as determined by the USDA-ARS at North Central Research Laboratory, Champaign, IL, in studies with other biotypes of Hessian fly.

Based on evaluations conducted by the USDA Soft Wheat Quality Lab (at Wooster, OH), IL 84-4046 has acceptable milling and baking qualities. Milling and baking quality of IL 84-4046 was 3 kg m⁻³ lower (2 to 5%) than that of 'Florida 302' in the testing period. Soft milling and baking qualities are similar to 'Saluda', with slightly higher (2 to 5%) combined quality scores in regional tests. IL 84-4046 was first selected in 1984 as an F₃ headrow. In 1988, about 400 F₆ headrows were grown, and uniform headrows were harvested and bulked. Seed from the 1988 bulked headrows was increased in 1991, and another increase was grown in 1993. Some variation for height was present; therefore, in 1994 about 1000 headrows were grown, and any headrow that differed in height from the previous headrows was discarded. Heterosis for height was observed in 1994 and 1995.

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