Registration of '2137' Wheat

'2137' (Reg. no. CV-834, PI 592444) is a hard red winter wheat (Triticum aestivum L.) developed cooperatively by the Kansas Agricultural Experiment Station and the USDA-ARS. It was released to seed producers in 1995. 2137 was selected as an F₄ headrow from the cross W2440/W9488/'2163' (where the pedigree of W2440 is 'Sturdy'/ 'Coker 68-15'/ MO7510/3/'TAM W-101', that of W9488 is IN4946A-18-2/MOW7718/3/Sturdy/'Kaw' and that of 2163 is IN4946A/MOW7470/3/NB/SRW/ SRW). 2137 was originally selected in 1988 by wheat breeders at Pioneer Hi-Bred International at Hutchinson, KS. In 1990, Pioneer closed its hard red winter wheat breeding station and donated its fixed lines and developing germplasm to Kansas State University.

2137 is awned, white-gluomed, and semidwarf. It is approximately 2 cm taller and 1 d later in heading than 2163, but similar to 2163 in most other agronomic characteristics. 2137 was released because of its improved grain yield, grain volume weight, leaf rust resistance (see below), and grain milling when compared with 2163. It is intended to replace 2163 in Kansas.

2137 has an oblong, middense spike that is inclined at maturity. The glumes are oblique and midwide at the shoulder; the beak is narrow, with an acute apex. The kernel is hard, red, and elliptical; the brush is medium, with no collar; the crease is narrow and shallow, and the cheeks are rounded. The germ is midsized.

2137 has been tested in the Kansas IntraState Nursery since 1992 as KS92P0263-137. It was tested in the USDA Southern Regional Performance Nursery in 1994 and 1995, and in the Kansas Variety Performance Tests since 1994. During the past 4 yr of testing (40 location-years), grain yield of 2137 has been equal to that of Jagger and 14 and 8% higher than those of 'Karl 92' and 2163, respectively.

2137 is resistant to leaf rust (caused by Puccinia recondita Roberge ex Desmaz.), wheat soilborne mosaic virus (SBWMV), wheat spindle streak mosaic virus (WSSMV), powdery mildew (caused by Erysiphe graminis DC. f. sp. tritici Em. Marchal), Hessian fly [Mayetiola destructor (Say)], rust resistance to powdery mildew (caused by Puccinia graminis Pers.:Pers.), and barley yellow dwarf virus (caused by Puccinia graminis Pers.:Pers.).

2137 is awned, white-glumed, and semidwarf. It is equal in height to 'Karl' and approximately 1 d earlier in heading. Its winterhardiness is equal to that of Karl and slightly less than that of 'Scout 66'. Stems of Karl 92 are white, midstrong, and hollow; the flag leaf is lax, with few distinct leaf hairs. Spikes of Karl 92 are oblong to fusiform and midsed. Awns are white and vary in length (2 to 5.5 mm); the spike at maturity is inclined. Glumes are lower protein concentration and improved grain volume weight. 2137 has an oblong, middense spike that is inclined at maturity. The glumes are oblique and midwide at the shoulder; the beak is narrow, with an acute apex. The kernel is hard, red, and elliptical; the brush is medium, with no collar; the crease is narrow and shallow, and the cheeks are rounded. The germ is midsized.