Registration of ‘Tamrun 96’ Peanut

‘Tamrun 96’ (Reg. no. CV-59, PI 601819) is a runner market-type peanut (Arachis hypogaea L. subsp. hypogaea var. hypogaea) cultivar with high yield potential and useful levels of resistance to tomato spotted wilt virus (TSWV), southern blight (stem rot) (caused by Sclerotium rolfsii Sacc.), and pod rot (caused by Pythium myriotylum Drechs.). It was tested as Tx896100 and was released by the Texas Agricultural Experiment Station in 1996.

Tamrun 96 has a prostrate plant growth habit with leaflet size and shape, stem thickness, plant color, and main stem height similar to ‘Florunner’ (1). However, the lateral branch terminals of Tamrun 96 are somewhat more lifted until late in the growing season and the main stem a little less prominent than in Florunner. Flowers are seldom found on the main stem and fruiting is mostly at alternate nodes, but highly irregular and sometimes near sequential on lateral branches. Pods are mostly two-seeded, with moderate constriction, slight beak, and moderate reticulation. Shell thickness is similar to slightly thicker than in Florunner. Pod and seed length and width measurements averaged 34% larger than Florunner, and the 100-seed weight averaged about 5% heavier than Florunner.

Tamrun 96 was derived from a cross of ‘Langley’ (2) × Tx833841 made at College Station, TX, in 1985. Tx833841, selected from a 1980 cross of Florunner × PI 475871, had good resistance to pod rot and southern blight, good agronomic performance, and good pod traits but a thick shell, which resulted in shelling percentages 2 to 3 points below Florunner. The Langley × Tx833841 F1, and F2 generations were grown near Bryan, TX, with the F2 harvested by single-pod descent. Individual plants were harvested in the F3 and the F3,4 progeny row was selected in 1989 for preliminary yield trial in 1990. Following two years of two-station tests in Texas, the line was included in the Uniform Peanut Performance Test from 1993 to 1995. Fifteen seeds from each of 60 random F3,4 plants with similar pod appearance were harvested in the fall of 1994 and winter-increased in Puerto Rico. Subsequent increase of 52 of those progenies formed the breeder seed of the new variety.

Tamrun 96 averaged 20.4% higher in pod yield than Florunner in 31 replicated yield tests during a 6-yr period (1990–1995). This included average yield advantages of 18% with low (9 tests) and 33% with high (5 tests) incidences of tomato spotted wilt disease in South Texas, and of 40% for three North Texas tests where sclerotinia blight (caused by Sclerotinia minor Jagger) occurred and 13% (13 tests) where that disease was not found. The average shelling percentage of Tamrun 96 was slightly (1 point) lower than Florunner, and the chemical properties were similar. In Texas, differences between Tamrun 96 and Florunner in spotted wilt disease ratings have coincided with their yield differences; however, the sclerotinia blight disease scores for the two varieties have been relatively similar. Additional studies have shown reduced infection by southern blight and pod rot for Tamrun 96. Tamrun 96 is susceptible to both early and late leaf spot. Limited observations indicate Tamrun 96 to be intermediate between ‘Tamrun 88’ (3) and Florunner in rate of seedling emergence.

Registration of ‘Elkhorn’ Wheat

‘Elkhorn’ is a hard red winter wheat (Triticum aestivum L. no. CV-859, PI 596352) cultivar developed by the Agricultural Experiment Station in cooperation with the USDA-ARS and released in 1995. Elkhorn was tested as an F3-derived line from the cross ‘Norstar’/4/’Centurk’/’Ulianovka’/3/SD76694 made in 1984 by D. Cox.

Elkhorn is mid-maturity, similar to ‘Seward’. It is mid-maturity, similar to ‘Roughrider’. Elkhorn spikes are awned, awned, and white at maturity. Glumes are 2 to 3 points below Florunner. The Langley × Tx833841 F1, and F2 generations were grown near Bryan, TX, with the F2 harvested by single-pod descent. Individual plants were harvested in the F3 and the F3,4 progeny row was selected in 1989 for preliminary yield trial in 1990. Following two years of two-station tests in Texas, the line was included in the Uniform Peanut Performance Test from 1993 to 1995. Fifteen seeds from each of 60 random F3,4 plants with similar pod appearance were harvested in the fall of 1994 and winter-increased in Puerto Rico. Subsequent increase of 52 of those progenies formed the breeder seed of the new variety.

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Elkhorn averaged 3288 kg ha⁻¹, which was 7% greater than ‘Arapahoe’, and 12% greater than Roughrider. Elkhorn was tested in the Northern Regional Performance Nursery from 1992 to 1994 (19 site-years across Montana, North Dakota, and South Dakota) and had an average yield of 3405 kg ha⁻¹, 9% greater than Roughrider. Elkhorn is moderately susceptible to both early and late leaf spot. Limited observations indicate Tamrun 96 to be intermediate between ‘Tamrun 88’ (3) and Florunner in rate of seedling emergence.

Elkhorn has grain volume weight (742 kg m⁻³), which was less than ‘Seward’, but greater than ‘Arapahoe’. Wheat protein content, flour extraction, and wet gluten are intermediate between Roughrider (higher protein) and Seward (lower protein). Dough mixing properties of Elkhorn are intermediate between Roughrider and Seward, and equivalent to Roughrider. Bread baking performance is also good, performing equal to Roughrider.

Cultivar protection of Elkhorn under the U.S. Plant Variety Protection Act is pending (no. 9700319). Breeder and foundation seed of Elkhorn may be obtained from the Foundation Seed Development Program, USDA-ARS, 630 N. College Station Blvd., College Station, TX 77843; C.E. Simpson, Texas A&M University, College Station, TX 77843; J.B. Rasmussen, USDA-ARS, 630 N. College Station Blvd., College Station, TX 77843.