Registration of ‘Jules’ Wheat

‘Jules’ (Reg. no. CV-813, PI 564851) hard red winter wheat (Triticum aestivum L.) was developed by the Colorado Agric. Exp. Stn. and released to seed producers in March 1993. Jules was released because of its high grain yield under long-season conditions and its resistance to leaf rust (caused by Puccinia recondita Roberge ex Desmaz.). Jules was selected from the cross NE76667/’Hawk’ made in 1981. Hawk was released by AgriPro Biosciences, Inc., in 1981; NE76667 is a Nebraska line, ‘Warrior’*5/’Agent’//’Agate’ sib. Jules is an F4-derived line bulked in 1986 and tested as CO860094. It was later purified for plant type by the selection of 60 headrows from the F4 generation to propagate breeder seed.

Jules has been tested in Colorado yield nurseries since 1987 and in the Southern Regional Performance Nursery (SRPN) in 1991 and 1992. In 3 yr (1990–1992) of dryland testing in the Colorado Variety Trial (23 location-years), Jules’s grain yield (2897 kg ha\(^{-1}\)) was 3% higher than ‘TAM 107’ and 7% higher than ‘Lamar’. At two longer-season locations, Jules was 5% higher yielding than the earlier TAM 107, and remained 7% higher than the later Lamar. In the SRPN in 1991 and 1992, Jules averaged 6.5 and 19% higher yielding than TAM 107 in Colorado and Nebraska tests, respectively. Jules is the same height as ‘Yuma’ and TAM 107 and 10 cm shorter than Lamar, a conventional height wheat. Jules has a longer coleoptile (91 mm) than Yuma (82 mm). Jules is recommended for all long-season production areas in Colorado.

The grain volume weight of Jules is lower than most other cultivars, probably because of its lateness. The winterhardiness of Jules is adequate for Colorado growing conditions and is equal to TAM 107 and ‘Arapahoe’. Jules is 6 d later in anthesis date than TAM 107 and 3 d later than ‘Akron’. The straw strength of Jules is less than TAM 107 and greater than Lamar, and should be adequate for Colorado dryland and irrigated conditions. Jules is resistant to the prevalent races of leaf rust and stem rust (caused by P. graminis Pers.:Pers.). Jules is susceptible to aphid [Diuraphis noxia (Mordvilko)]. Based on composite samples from several locations, Jules has lower yield and test weight under irrigated management, where mildew and 19% higher yielding than TAM 107 in Colorado and Nebraska tests, respectively. Jules has the same heading date as Ute. The chaff is tan at maturity, whereas the chaff of Ute is bronze. Internodes of Garland are rounded and short, whereas those of Ute are long and slender. The flag leaf is recurved. Plants are green at the boot growth stage. The kernel is medium length, red, hard textured, and ovate. The kernel of Jules has been classified by the Federal Grain Inspection Service as hard red winter wheat.

Jules has been protected under the U.S. Plant Variety Protection Act (PVP no. 9400122) with the certification option.

J. S. QUICK,* G. E. ELLIS, J. F. SHANAHAN, K. LORENZ (1)

References and Notes

1. J.S. Quick, G.E. Ellis, R.M. Normann, and J.F. Shanahan, and Crop Sciences, and K.J. Lorenz, Dep. of Plant Science, Colorado State Univ., Fort Collins, Federal Grains and Flour Nutrition, developed with partial financial support from the USDA, Fort Collins, National Program Project Administrative Committee. Registration by CSSA, *Corresponding author (Email: jquick@ceres.ag.colostate.edu).

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Registration of ‘Garland’ Wheat

‘Garland’ (Reg. no. CV-816, PI 583291) hard red winter wheat (Triticum aestivum L.) was developed by the Utah Agricultural Experiment Station (UAES) and released in 1993. Garland, tested under the designation UT1706-1, was released to provide superior yield and test weight under irrigated management, where mildew (caused by Erysiphe graminis DC. f. sp. tritici Em. Marchal) can be severe. Garland was derived from the cross ‘Favorite’/S/‘Garland’ (Reg. no. CV-816, P1 583291) hard red winter wheat (Triticum aestivum L.) was developed by the Colorado Agric. Exp. Stn. and released to seed producers in March 1993. Garland was released because of its high grain yield under long-season conditions and its resistance to leaf rust (caused by Puccinia recondita Roberge ex Desmaz.). Garland is an F4-derived line bulked in 1981 and planted as headrows in a nursery at the Greenville Experiment Station. Garland has U.S. plant variety protection (No. 9400178). Breeder seed of Garland will be maintained by the Utah Agricultural Experiment Station at Logan.

Garland is an awned, semidwarf wheat. Tolumnial and juvenile growth is semierect. Garland is less than ‘Nugaines’ and 1.5 cm shorter than ‘Utah’. Garland has the same heading date as Ute. The chaff is tan. The kernel is medium-length, red, hard textured, and ovate. The kernel of Garland is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect.

Garland is an awned, semidwarf wheat. The gramineous and juvenile growth is semierect. Garland is less than ‘Nugaines’ and 1.5 cm shorter than ‘Utah’. Garland has the same heading date as Ute. The chaff is tan. The kernel is medium-long length, red, hard textured, and ovate. The kernel of Garland is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect. The kernel is white and juvenile growth habit is semi-erect.

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