Registration of ‘Trenasse’ Rice

‘Trenasse’ (Oryza sativa L.) (Reg. no. CV-121, PI 641796, NSSL 438456.52) is a very early maturing, short stature, high yielding long-grain rice cultivar developed at the Rice Research Station at Crowley, LA, by the Louisiana State University Agricultural Center (LSU AgCenter) in cooperation with the USDA-ARS, the Arkansas Agricultural Experiment Station, the Mississippi Agricultural and Forestry Experiment Station, and the Texas Agricultural Experiment Station. Trenasse was officially released by the LSU AgCenter in 2004.

Trenasse was developed from the cross ‘Cypress’/‘L-202’/‘Tebonnet’/3/LSBR-5’ made at the Rice Research Station in 1996 (96CR020). Cypress is a semidwarf, high yielding, long-grain rice cultivar with good milling stability which was released by the LSU AgCenter (Linscombe et al., 1993). L-202 is a semidwarf, very early maturing long-grain rice cultivar developed jointly by the Arkansas Agricultural Experiment Station and the USDA-ARS (Kuenzel et al., 1985). LSBR-5 is a sheath blight-resistant somaclonal mutant developed through the tissue culture of sheath blight susceptible rice cultivar ‘Labelle’ (CL66708) at the LSU AgCenter (Xie et al., 1992).

Trenasse was developed from an F4 bulk (0016184) selected in 2000. It was tested in the preliminary yield (PY) trials in Crowley, LA, as entry PY619 in 2001 and advanced to the Cooperative Uniform Regional Rice Nurseries (URRN) and multilocation Louisiana Commercial-Advanced (CA) yield trials in 2002 with the designation of RU0202008.

The principal reasons for releasing Trenasse were extremely early maturity, high main crop and ratoon yield potential, and good milling and grain quality. In 21 statewide and regional trials, average number of days from emergence to 50% heading for Trenasse was 74 d compared with 80, 82, and 83 d for Cocodrie, Cheniere, and Cypress, respectively. The average grain yield (main crop) of Trenasse in 21 statewide and regional trials was 8089 kg ha⁻¹ compared with 8504, 8247, and 7602 kg ha⁻¹ for Cocodrie, Cheniere, and Cypress, respectively. The average ratoon yield for Trenasse was 2439 kg ha⁻¹ compared with 2157, 1830, and 2169 kg ha⁻¹ for Cocodrie, Cheniere, and Cypress, respectively.

Under drill-seeding conditions, the average height of Trenasse was 101 cm compared with 95, 96, and 97 for Cocodrie, Cheniere, and Cypress, respectively. The flag leaf of Trenasse is narrow and remains below the panicle in all stages of growth. Basal leaves, lemma, and palea are glabrous. The rachis is golden colored, while the apiculus is purple. The pericarp is light brown in color.

Trenasse is susceptible to sheath blight (caused by Rhizoctonia solani Kühn), rating a 6.3 on the disease scale, 0 = immune, 9 = highly susceptible compared with 7.2 and 6.3 for Cheniere and Cocodrie, respectively. Trenasse is moderately resistant to leaf blast (caused by Pyricularia grisea) rating a 5.3 compared with 3.7 and 5.8 for Cocodrie and Cheniere, respectively. However, Trenasse is more susceptible to the physiological disorder straighthead, compared with 5.2 and 1.7 for Cocodrie and Cheniere, respectively.

Off-type observed and removed from the population include plants that were taller or shorter and later. The total number of off-type plants removed was less than 1 per 500 plants.

U.S. Plant Variety Protection under the P.L. 91-577 has been applied for Trenasse. Application for a utility patent for this cultivar has been filed with the United States patent office (Serial number: 08/228580. Filed: 21 Sep. 2005). Breeder and Foundation seed of Trenasse will be maintained by the Louisiana State University Agricultural Center, Louisiana Agricultural Experiment Station, 1373 Caffey Road, Rayne, LA, 70578. Requests for seed must be made to the corresponding author at least 20 yr from the date of release by Louisiana State University Agricultural Center (2004), at which time seed will be available from the NPGS.


References


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