tonia solani Kühn), resistant to narrow brown leaf spot (Cercospora oryzae Miyake), moderately resistant to leaf smut (Entyloma oryzae Syd. & P. Syd), and susceptible to the physiological disorder straighthead.

Variants observed and removed from increase fields of Bengal were taller and included any combination of the following: pubescent, earlier, later, and intermediate grain type. The total number of variants numbered fewer than 1 per 5000 plants.

Breeder and foundation seed of Bengal will be maintained by the Louisiana State University Agricultural Center, Louisiana Agricultural Experiment Station, Rice Research Station, P.O. Box 1429, Crowley, LA 70527-1429.

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Registration of 'GR863' Wheat

'GR863', soft red winter wheat (Triticum aestivum L.) (Reg. no. CV-778 PI 508287) was developed by the Ohio Agricultural Research and Development Center, Ohio State University, and licensed to the Agricultural Genetic Research Association (AGRA) in 1986. GR863 was produced from the three-way cross: 'Xelaju 66'/'Logan'/'Abe' and was first selected as a single F3 plant in 1976. It was reselected in 1980 in the F7 generation. Progeny of 16 F7 plants, selected for uniformity in 1980 to 1984, were bulked following the 1984 harvest to comprise breeder seed.

GR863 is a brown chaffed, awned wheat with distinctive purple ligules and auricles observable prior to grain ripening. Glumes are long with oblique-square shoulders and acuminate beaks. GR863 has red kernels that are ovate with narrow creases and rounded cheeks. The brush is not collared.

GR863 was tested in 25 statewide trials in Ohio from 1981 to 1985. The average yield of GR863 was 4428 kg ha⁻¹ compared with 4253 kg ha⁻¹, 4448 kg ha⁻¹, and 4602 kg ha⁻¹ for 'Hart', 'Becker', and 'Cardinal', respectively. GR863 is an early-maturing cultivar that headed an average of 2 d earlier than Hart and 4 d earlier than Cardinal. It is comparable in height to 'Adena' and 10 to 12 cm shorter than Hart and Cardinal. The foliage of GR863 is blue-green. GR863 has acceptable winterhardiness, but was slightly inferior to Hart, Adena, and Cardinal in Ohio tests. The lodging resistance of GR863 is similar to 'GR855' and superior to Hart, 'Titan', Adena, Becker, and Cardinal.

GR863 has good resistance to leaf rust (Puccinia recondita mildew (Erysiphe graminis DC. f. sp. tritici) and wheat spindle streak mosaic virus (WSSMV). It also possesses the H3 gene for resistance to races GP, A, C, and F of Hessian fly (Mayetiola destructor Say).

USDA Soft Wheat Quality Lab (Wooster, OH) data indicate that GR863 has medium milling and baking quality. Its combined quality scores from analyses of statewide samples taken from statewide tests exceeded those for Hart in 1983 and 1984. GR863 was tested as OH256 in the Four-State (Illinois, Indiana, Missouri, and Ohio) Regional Nursery from 1982 to 1984, and in the Uniform Eastern Soft Red Winter Wheat Nursery in 1985. The superior yields of GR863 in comparison to other cultivars in these nurseries demonstrate its adaptation to Ohio and surrounding states.

Foundation seed of GR863 was first distributed to seedsmen in the fall of 1986. GR863 is a Title V protected cultivar under the provisions of the Plant Variety Protection Act (Certificate 8700139). Breeder seed will be maintained by the Ohio Agricultural Research and Development Center, Ohio State University, Wooster, OH 44691.

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References and Notes

4. S.D. Linscombe, F. Jodari, P.K. Bollich, and R.T. Dunand, Rice Research Station, P.O. Box 1429, Crowley, LA 70527-1429; and K.S. McKenzie, Rice Research Station, P.O. Box 306, Biggs, CA 95917. Approved for release of the Louisiana Agricultural Experiment Station 86-6338. Research supported in part by the Rice Board. Registration by CSSA Accepted 31 Oct 1992. *Corresponding author.