and Lebonnet, rating a 4 on a relative straw strength (lodging) scale (0 = erect, 9 = flat) compared to a 5 and 6 for Labelle and Lebonnet, respectively. Tebonnet has glabrous lemma, palea and leaf blades, and grains may have colorless or purple apiculi on the lemma. At maturity, the hulls are straw colored.

Tebonnet is slightly more tolerant to sheath blight, caused by Rhizoctonia solani Kuhn, than Bond, Labelle, or Lebonnet, normally rating a 7 in artificially inoculated tests on a disease scale of 0 = immune, 9 = maximum disease, while the latter three cultivars rate an 8 or more. Tebonnet plants rated a 1, 5, and 7 to international rice blast (Pyricularia oryzae Cavara) races 1H-1, 1G-1 and IC-17, respectively. Tebonnet, which rated 6 on the disease scale for strawhead (a physiological disorder), requires special water management when grown on strawhead susceptible soils.

Total milled rice yields of Tebonnet averaged approximately 1 percentage point higher than those of Bond, Labelle and Lebonnet. Whole kernel milled rice yields of Tebonnet exceeded those of Labelle and Lebonnet by approximately 1 and 4 percentage points, respectively.

Individual kernel dimensions for Tebonnet, Labelle, Lebonnet, and Newbonnet averaged as follows: for rough rice, length—9.5, 9.3, 10.0, and 9.4 mm; width—2.5, 2.5, 2.5, and 2.5 mm; length/width ratio—3.8, 3.7, 3.5, and 3.5; and thickness—1.9, 1.9, 2.0, and 1.9 mm. Corresponding brown rice measurements averaged: length—7.5, 7.2, 7.2, and 7.2 mm; width—2.1, 2.1, 2.2, and 2.2 mm; length/width ratio—3.5, 3.4, 3.5, and 3.4; and thickness—1.7, 1.6, 1.7, and 1.7 mm. For whole-grain milled rice the averages were: length—7.0, 7.0, 7.3, and 7.2 mm; width—2.0, 2.0, 2.1, and 2.1 mm; length/width ratio—3.5, 3.5, 3.5 and 3.5; and thickness—1.7, 1.6, 1.7, and 1.7 mm.

Average individual kernel weights for Tebonnet, Labelle, Lebonnet, and Newbonnet, respectively, were: rough rice—24.0, 21.4, 25.7, and 23.5 mg; brown rice—20.1, 17.2, 21.0, and 18.9 mg; and for milled rice—18.8, 16.2, 19.3, and 18.1 mg. These values indicate that Tebonnet and Newbonnet kernels are comparable in size, both being slightly larger than those of 'Starbonnet', a standard long-grain variety.

Kernels of Tebonnet are nonglutinous, nonaromatic, and normally free of chalk. The pericarp is light brown. Results from the Cooperative Regional Rice Quality Laboratory at Beaumont, TX, indicate that Tebonnet, with an average starch amylose content of 22.9%, and an intermediate gelatinization temperature as indicated by a 1.7% KOH spreading reaction of 2 to 5, has typical U.S. long-grain quality characteristics as described by Webb et al. (8).

A carefully rogued 0.5 ha seed increase of RU7801011 planted at Stuttgart, AR, in 1982, from hand-picked seed, produced the breeder seed used to plant the 16 ha foundation seed production field at Stuttgart in 1983. In 1983, 5000 breeder seed panicle rows were grown along with a 0.5 ha increase block to produce the breeder seed source for the 31 ha foundation seed field grown at Stuttgart, AR, in 1984. Forty-nine panicle rows were selected and approximately 100 panicles were saved from each to grow in family blocks for further purification and increase of Tebonnet breeder seed in 1984. Twenty-three families with phenotypically similar characteristics were bulked for production of further purified breeder and foundation seed in 1985 and 1986. Although the seed increases have been rogued many times, a few taller plants and/or later plants as well as possible gold-hull-, intermediate-, and/or medium-grain and other off type plants, still may be encountered.

Breeder and foundation seed of Tebonnet will be maintained by the University of Arkansas Rice Research and Extension Center, P.O. Box 351, Stuttgart, AR 72160. Plans are being made to submit application for registration and variety protection of Tebonnet under Public Law 91-577 with the certification option.

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References and Notes


REGISTRATION OF 'OKER' SAFFLOWER

'OKER' safflower (Carthamus tinctorius L.) (Reg. no. 10) was developed at the Eastern Agricultural Research Center, Montana Agricultural Experiment Station, Sidney, MT, and released in 1984.

Oker originated from the cross Sidney Selection 87-42-3/AC-1. Sidney Selection 87-42-3 is a 1965 selection resistant to Alternaria leaf spot, incited by Alternaria carthami (Chow). This selection was made from the 1964 bulk composite of 555 safflower introductions from the 1960 world safflower collection. The 1964 bulk composite was grown on a lower Yellowstone River Valley site near Sidney, MT, that had been continuously cropped to safflower since 1961. The AC-1 is a high seed oil content cultivar with a purple-striped hull developed by Anderson Clayton Company, Phoenix, AZ.

The initial cross was made in 1973. Field selection for early flowering, early ripening, and disease resistance to Alternaria leaf spot and bacterial blight, incited by Pseudomonas syringae (Van Hall), was practiced at Sidney during the F2 and F3 generations. Oker is an individual F2 plant selection derived from an early maturing disease resistant F2 plant selected in 1975. It was subsequently tested in Montana and North Dakota yield trials as 80B2793-2.

Oker is an early flowering, early ripening variety with resistance to Alternaria leaf spot and bacterial blight. The seeds have a predominantly purple-striped hull with an occasional white normal hull (1/100). The flowers are yellow in the bud and full bloom stages. When wilted, the flower color is light orange except under high humidity conditions the color appears orange to light red. Oker plants are spiny and average 1 day earlier in flowering.