row block of Labelle grown at Beaumont in 1969 was used to plant a 4 ha field for breeder seed production in 1970. Foundation seed was produced on 122 ha in 1971 and was distributed to growers in the spring of 1972 (Bollich et al. 1972). The spikelet of Labelle is straw colored, glabrous, and awnless. It has faint anthocyanin pigmentation in the apiculus. The grain is a typical U.S. long-grain rice, slightly smaller than that of Belle Patna and 'Bluebelle' and about the same size as that of 'Starbonnet'. Labelle is similar to Belle Patna in plant type, but it has 5 to 8 cm shorter straw and slightly narrower leaves. Labelle is about the same in maturity as Belle Patna and averages 80 days from seeding to heading.

Labelle is the product of an accelerated testing and breeding program for very short season rice cultivars with resistance to the blast disease caused by *Pyricularia oryzae* Cav. Information regarding reaction to other diseases is presented in Tables 1 and 2.

Labelle has about the same first-crop yield as Belle Patna, but the second-crop yield potential is higher. It is more resistant to lodging than Belle Patna, but less so than Bluebelle. Labelle produces high milling yields and has the light hull color preferred by industrial processors of parboiled long-grain rice. Labelle possesses the superior cooking and processing behavior that characterizes U.S. long-grain varieties. Like other preferred U.S. long-grain types, it has a relatively high amylose content (24 to 25%) and an intermediate gelatinization temperature range (70 to 75 C).

Labelle was grown on about 2,300 ha in Texas in 1972. Reports from growers indicate that first-crop yields of Labelle tended to be higher than those of Belle Patna and Bluebelle, and second-crop yields were generally superior.

The initial foundation seed of Labelle contained a trace of grains with gold hulls. These offtypes have been eliminated through use of head rows in breeder seed increases. Breeder and foundation seed of Labelle are maintained by the Texas A&M Agricultural Research and Extension Center at Beaumont, Texas.

**REGISTRATION OF NORTAI RICE**

(Reg. No. 39)


'Nortai' rice (*Oryza sativa* L.), C.I. 9836, was developed jointly by the Agricultural Research Service, USDA, and the Arkansas Agricultural Experiment Station. It was derived from the cross 'Northrose' × P.I. 215936. The pollen parent, P.I. 215936, was made at the University of Arkansas Rice Branch Experiment Station in 1959. Northrose has been registered (Johnston and Henry, 1966). P.I. 215936 ('Tainan-iku 487') is a high yielding, pubescent, short-grain introduction from Taiwan (Johnston et al., 1972).

Nortai spikelets are characteristic awnless and glabrous. There may be a few hairs on the lemma keel. The apiculus, sometimes the apex of the grains, and the outer glumes carry the purple coloring of the P.I. 215936 parent. The purple pigmentation on the panicles usually is rather pronounced at heading, but the intensity diminishes at maturity. The lemma and palea usually are light yellowish-gold in color when the grains mature. The purple coloration of Nortai distinguishes it from all other commercial rice cultivars presently grown in the United States. It was released for commercial production in March 1972 as a replacement for 'Caloro' in Arkansas (Johnson, Templeton, and Henry, 1973).

Nortai was tested under the designations C.I. 9836 and S1g 661152. It has 25% shorter straw than Caloro and is considerably more resistant to lodging. It averages about the same in plant height as the widely grown, long-grain 'Starbonnet'. Nortai resembles Caloro in that the plants have thin culms and rather narrow, dark-green leaves. Nortai heads about 10 days later than 'Nova 66' and about 6 days earlier than Caloro from normal seeding dates. Unlike Caloro, Nortai is not photoperiod sensitive.

Nortai equalled Caloro in grain yield and exceeded it by 5% in kg/ha of milled head rice (whole kernels) in 22 replicated experiments in Arkansas during 4 years, 1969-1972. Rough rice yields of Nortai were nearly as high as, and milling yields exceeded, those of the high yielding, medium-grain cultivar, Nova 66. Percent milling yields of Nortai were almost equal to those of the excellent milling 'Nato'. Nortai has shown greater field resistance to both blast and straighthead diseases than Caloro and has been equal to it in resistance to kernel smut in the same Arkansas tests. Nortai has surpassed both Nato and Nova 66 in field resistance to blast and kernel smut in Arkansas. Other disease reactions are presented in Tables 1 and 2.

Nortai produced an average rough rice yield of 7,070 kg/ha in 18 Arkansas variety trials, with a high average of 8,500 kg/ha in one experiment. High grain yields also were obtained in seed rate and in nitrogen fertilizer experiments at Stuttgart. Small observational fields and seed increase fields of Nortai on rice farms in both 1971 and 1972 also produced high yields of rough rice. Data from cooperative cultural experiments show that Nortai requires higher rates of nitrogen fertilizer than Caloro and other short- or medium-grain cultivars to produce maximum grain yields.

Brown rice kernels of Nortai averaged 5.6 mm long and 2.9 mm wide, compared with corresponding measurements of 5.4 and 3.1 mm for Caloro, 5.7 and 2.6 mm for Nato, and 6.1 and 2.9 mm for Nova 66. Length/width ratios averaged 2.0, 1.8, 2.2, and 2.2 for Nortai, Caloro, Nato, and Nova 66, respectively. Nortai and Caloro are short-grain types, whereas Nato and Nova 66 are classed as medium-grain cultivars. Milled kernels of Nortai are much less chalky than those of Caloro. The two cultivars are very similar in cooking and processing characteristics, according to specific physicochemical tests conducted at the cooperative Regional Rice Quality Laboratory at Beaumont, Texas (Webb et al., 1972). Additional tests by industry representatives indicate that Nortai can be used for the same purposes as Caloro.

The original release of foundation seed contained a scattering of taller, non-purple, and otherwise different offtypes. Breeder seed panicle rows, hand picking of seed, and severe roguing of seed increase fields are being used to purify the cultivar further. Seed is produced in Arkansas under restricted certification, with only two generations of each seed for the classes registered and certified seed. Application is not being made for protection under the Plant Variety Protection Act. Breeder and foundation seed are maintained by the University of Arkansas Rice Branch Experiment Station, P. O. Box 351, Stuttgart, AR 72160.

**REGISTRATION OF VISTA RICE**

(Reg. No. 40)

Nelson E. Jodon, Earl A. Sonnier, Jr., and W. O. McLirath

'Vista' rice (*Oryza sativa* L.), C.I. 9628-2, was developed cooperatively at the Rice Experiment Station, Crowley, Louisiana, by the Agricultural Research Service, USDA, and the Louisiana Agricultural Experiment Station. It was a selection from an apparent F₁ hybrid plant found in a 1961 headrow block of a grafted selection from 'Rexoro' × ('Lacrosse' × 'Magnolia'). The pollen parent may have been a strawhull selection from

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