REGISTRATION OF CROP CULTIVARS

and yellow when mature. The panicle is medium in size and equilateral in shape with spreading branches. There is some unevenness in height; however, only a few panicles, if any, are completely above the panicle canopy. The overall appearance of Moore resembles Lodi, one of its parents, except for plant color.

Seed of Moore was released to certified growers in Minnesota, North Dakota, South Dakota, and Wisconsin in 1979. The cultivar is best adapted to the northern portion of that area.

Breeder seed will be maintained by the Minnesota Crop Improvement Association, 1900 Hendon Ave., St. Paul, MN 55108.

Application for plant protection will be made.

REGISTRATION OF M-301 RICE

(Reg. No. 55)

C. W. Johnson, H. L. Carnahan, S. T. Tseng, and D. M. Brandon

'M-301' (Oryza sativa L.), C.I. 9973, (experimental designation 78-Y-65) is a composite of 15 homogeneous F₁ lines. It was derived from a cross, R273, made at the California Co-operative Rice Research Foundation's Rice Exp. Stn. in the winter of 1974 to 1975. This cross was 'Calrose 76'/'CS-M3'/'M5'. The Calrose 76/CS-M3 parent was a short-stature, late-maturing, medium-grain F₁ line that was later increased and released as 'M7'. M5 is a tall, medium-grain cultivar of intermediate maturity which originated as an earlier maturing natural mutant from CS-M3.

M-301 was compared with cultivars and experimental varieties from California in replicated tests conducted cooperatively with the California Agric. Exp. Stn. and the California Coop. Ext. Service.

The designation, M-301, indicates that the new cultivar has medium-grain shape (M), is of intermediate maturity (300 series) and is the first cultivar in this series (01) to be released since adoption of this naming system in 1979. It has glabrous lemma, palea and leaf blades except that some hairs are found on the leaf blade margins. No plant parts of M-301 show anthocyanin pigmentation. M-301 is sparsely awned.

M-301 has short stature, averaging around 97 cm as compared to 125 cm for M5. Panicles of M-301 normally are exserted completely from the leaf sheaths. The new cultivar has good seedling vigor and intermediate maturity similar to the M5 parent. It is not photoperiod sensitive. M-301 is much more resistant to lodging than M5, averaging 42 vs. 85 % lodging for the latter. It lodges more than M7 which averaged 10% in the same tests.

Brown rice kernels of M-301 are slightly smaller than M5, averaging 22.9 mg as compared to 23.8 for M5. Brown rice kernels range from 5.9 to 6.0 mm long and 2.7 to 2.8 mm wide. Milled kernels of M-301 are similar to those of M5 in translucency. Grains of M-301 have light brown bran (pericarp) and white non-glutinous and non-aromatic endosperm. Results from the Cooperative Regional Rice Quality Laboratory at Beaumont, Tex. showed that the amylose makes up 17 to 19% of the starch. M-301 kernels have a low gelatinization temperature as evidenced by alkali spreading scores of 6.9 to 7.0 in 1.7% KOH. These values are typical of those for U.S. medium-grain cultivars. Taste panelists rated M-301 as satisfactory.

Whole kernel (head) and total milling yields of M-301 are satisfactory and comparable to those for M5.

M-301 has performed well in 8 replicated tests conducted in 1978 and 1979 at sites representative of the California rice growing areas. M-301 averaged 8,037 kg/ha as compared to 7,179 kg/ha of paddy (rough rice) for M5 at 12% moisture. Unpublished data obtained by

REGISTRATION OF S-201 RICE

(Reg. No. 56)

H. L. Carnahan, C. W. Johnson, S. T. Tseng, and D. M. Brandon

'S-201' rice (Oryza sativa L.), C.I. 9974. (experimental designation 78-Y-38 + 78-Y-41) is a composite of two homogeneous F₁ lines from the cross 'Calrose 76'/'CS-M3'/'M6' made at the California Cooperative Rice Research Foundation's Rice Exp. Stn. in California. This cross, designated R542, was made in 1975 and 1976, and released in 1979 on a “certification pending basis”. S-201 was released jointly by the California Co-operative Rice Research Foundation, Inc., the California Co-op. Ext. Service and the California Agric. Exp. Stn. and AR-SEA-USDA. It was approved for cultivation in California and should replace M5.

Foundation seed of S-201 was made available to certified growers in California in 1979 on a “certification pending basis”. S-201 was not registered for plant variety protection in the United States, but is a new variety that is being released by the breeder for the 1980 planting season. Application for plant protection will be made.

The designation, S-201, indicates that the new cultivar has short-grain shape (S), is of early maturity (200 series) and is the first cultivar in this series (01) to be released since adoption of this naming system in 1979. S-201 has glabrous lemma, palea and leaf blades except that some hairs are found on the lemma keel and on leaf blade margins. No plant parts of S-201 show anthocyanin pigmentation. The new cultivar has short stature, averaging 86 cm.

M-301 was compared with cultivars and experimental varieties from California in replicated tests conducted cooperatively with the California Agric. Exp. Stn. and the California Coop. Ext. Service.

The designation, S-201, indicates that the new cultivar has short-grain shape (S), is of early maturity (200 series) and is the first cultivar in this series (01) to be released since adoption of this naming system in 1979. S-201 has glabrous lemma, palea and leaf blades except that some hairs are found on the lemma keel and on leaf blade margins. No plant parts of S-201 show anthocyanin pigmentation. The new cultivar has short stature, averaging 86 cm. Panicles of S-201 normally are exserted completely from the leaf sheath. The new cultivar has good seedling vigor comparable to its S6 parent.

1 Registered by the Crop Sci. Soc. Am. Cooperative investigations of the University of California Coop. Ext. Service personnel indicated that the new cultivar is responsive to high N fertility but less so than M7.

2 M-301 has good tolerance to sterility (comparable to that of S5) and low temperatures 10 to 14 days before heading. Reaction of M-301 to diseases that are prevalent in humid areas is unknown. Reaction of M-301 to Sclerotinia oryzae is being similar in reaction to its parents.


