REGISTRATION OF ‘CALMOCHI-202’ RICE
(Reg. No. 59)

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‘CALMOCHI-202’ rice (Oryza sativa L.), CI 9977, was designated experimentally as R4249-SC, 79-Y-37 and 80-Y-36. It is a composite of five homogeneous, true-breeding F3 lines from a cross made during the winter of 1976-77 at the California Co-operative Rice Research Foundation’s Rice Experiment Station near Biggs, CA. The cross, designated R4249, was R57-362-4/D51//Calmochi-201. The maternal parent of the final cross was a selection made at Davis, CA by the USDA. R57-362-4 was a tall, short-grain selection from ‘Colusa’/‘CS-M3’. D51 is a radiation-induced, short-stature mutant from ‘Calrose’ that is nearly identical to ‘Calrose 76.’ Calmochi-201 is a tall radiation-induced waxy or “sweet rice” mutant cultivar derived from ‘S6.’

Calmochi-202 was compared with other early-maturing cultivars and experimental varieties from California in seven replicated tests conducted in cooperation with the California Agric. Exp. Stn. and the California Coop. Ext. Service.

Calmochi-202 is a short-grain waxy or glutinous cultivar. It is a short stature, averaging 88 cm tall vs 113 cm for the tall cultivar, Calmochi-201. It 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 Calmochi-202 show anthocyanin pigmentation. It is awnless.

Panicles of Calmochi-202 normally are exserted completely from the leaf sheaths. The new cultivar has good seedling vigor. It heads and matures similar to S6 and Calmochi-201. It is not photoperiod sensitive. Calmochi-202 is much more resistant to lodging than Calmochi-201, averaging 16 vs 64% for the latter.

Brown rice kernels of Calmochi-202 have light brown bran (pericarp) and white opaque, waxy, non-aromatic endosperm. Results from the Cooperative Rice Quality Laboratory at Beaumont, TX, showed that the amylose makes up less than 0.1% of the starch. Calmochi-202 kernels have a low gelatinization temperature as evidenced by an alkali spreading score of 7.0 in 1.7% KOH. These values are similar to those for Calmochi-201 and are typical for U.S. waxy cultivars. The new cultivar, like its waxy parent, is considered unsatisfactory for making mochi cakes but is considered acceptable in other waxy rice markets.

Whole kernel (head) and total milling yields of Calmochi-202 are satisfactory and similar to those for Calmochi-201.

Calmochi-202 has performed very well in seven replicated tests conducted in 1979 and 1980 at sites representative of the major California rice growing areas. Grain yields averaged 8,765 kg/ha of paddy rice at 12% moisture compared to 7,520 kg/ha for Calmochi-201 and S6. Calmochi-202, like S6 and Calmochi-201, is moderately sensitive to low temperatures 10 to 14 days before heading which cause sterility or blanking. Reaction of Calmochi-202 to diseases prevalent in humid areas is unknown. It is moderately tolerant to stem rot incited by Sclerotium oryzae Catt., being similar to other California cultivars in reaction.

Calmochi-202 appears to be adapted to the major rice growing areas of California except the coldest areas and should replace Calmochi-201 as soon as seed becomes available.

Calmochi-202 was released jointly by the California Co-operative Rice Research Foundation, Inc., the California Agric. Exp. Stn. and AR-SEA-USDA. Accepted 3 June 1981.

1 Registered by the Crop Sci. Soc. of Am. Cooperative investigations by the California Co-op. Rice Res. Found., Inc., the California Agric. Exp. Stn. and AR-SEA-USDA.
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