

Effects Cultural Practices on the Grain Yield and Quality of Ratoon Rice

II. Effects of harvest-timing of days after heading¹

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Summary

Field experiments were conducted in 1993 and 1994 at Hualien District Agricultural Experiment Station to study the effects of harvest-timing on the yield and quality of rice. The japonica rice cultivar Taikeng 6 was grown in the first crop by transplanting culture followed by ratoon culture in the 2nd crop. After the 1st crop rice was harvested, the ratoon seedlings of 15-20 cm in height were cut with a mechanized device at 5 cm high aboveground; different harvest timing were treated by 25, 30, 35, 40 and 45 days after heading of ratoon rice, the sixth treatment was harvested at physiological maturity stage while the conventional transplanting culture was used as the check. Experimental design were arranged in a nested randomized complete block with four replications, and the plot sizes wase 21.6 m². The performance of agronomic characteristics, and grain yield and quality of the ratoon rice were evaluated.

Experimental results indicated that grain yield of ratoon rice, irrespective of all harvest timing treatments, was lower than that of the transplanted rice (4,583 and 4,558 kg/ha for 1993 and 1994, respectively) which was affeced by seed-set percentage, the yields of ratoon rice were between 2,676and 3,36 kg/ha, the treatments of harvest timing of 25 and 30 days after heading were below 62.8%. Although the appearance and milling quality of ratoon rice were poorer in comparison to those of transplanted rice, the harvest timing of 35, 40, 45 days after heading have stable performance. Eating quality of the ratoon rice also lower than that of the transplanted rice, the percentage of unmatured and dead rice of harvest timing of 25,30 and 35 days after heading were high significantly. In conclusion, ratoon rice is not comparable to transplanted rice in terms of both grain yield and quality, nevertheless, harvest timing of 40and 45 days after heading is worth to be recommended for this labor-saving practices as it improves significantly the performance of ratoon rice.

(Key words:Rice, *Oryza sativa* L., Ratoon rice culture, Rice quality. Harvesting timing)

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