

Effects on the Growth and Yield between Lowland and Upland Rice under Saving Irrigation Model at Taitung Area

Wen-Yen Ting¹, Chiou-Lan Huang² and Jui-Kung Chiang³

Abstract

This study was conducted on the growth and yield between lowland and upland rice under saving irrigation model, to establish the reasonable moisture management of paddy rice. Results indicated that the saving irrigation treatment reduced 4 times irrigations than control. The yield of normal cultural irrigation treatment had higher yield than saving irrigation obviously, the varieties of lowland rice had higher yield performance than upland rice, also. It showed that saving irrigation reduced the yield in the first crop more than the second crop. According to the agronomic characteristic, the saving irrigation could reduce the grain number per panicle in the second crop of 2006 and the panicle number and fertility percentage of lowland rice in the first crop of 2007. And it reduced the panicle number of Tunglu 1 and Tunglu 2 in the second crop of 2006, the fertility percentage of upland rice in the first crop of 2007. Otherwise, the saving irrigation treatment had no effect on the rice quality, but the head rice of the first crop of 2007 would be reduced by the water deficit.

Key words: Rice, Upland rice, Drought resistant, Yield, Rice quality.