Effect on the Growth and Yield of Upland Rice among the Different Cultural Models

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Abstract

To establish the suitable cultural model of upland rice, we used 14 varieties(lines) under lowland,upland and saving irrigation model in the first cropping season and the second cropping season at Taitung area. Analysis the grain appearance and amylose content, it showed that these 14 materials could divided 3 groups, including 5 Japonica rice, 4 Indica rice and 5 Indica glutinous rice. Comparison among the different cultural models, we found that the plant height, panicle length and yield of the second crop were higher than the first crop under lowland culture. Investigation the growth characters indicated that, all the varieties(lines) had fewer panicle numbers, fertility percentage and yield under the upland culture. Obviously, the normal irrigation treatment had higher plant height and yield than the saving irrigation, it indicated that the saving irrigation decreased the yield by water deficits, and the effect of water deficits in the second crop was stronger than the first crop.

Keywords: Upland rice, Culture models, Yield.

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