Effects of Different Nitrogen Levels on the Grain Yield and Quality of Rice Variety Taitung 35

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Abstract

Taitung 35 had been registered by Taitung District Agricultural Research and Extension Station in 2016. This cultivar has shown moderately resistant to rice leaf blast and resistant to lodging, posseses erect plant type and good grain appearance. The purpose of this study was to investigate the effect of nitrogen fertilizer level on the grain yield and quality of rice variety Taitung 35. Results indicated that the highest yield in the treatment with application nitrogen at 240 kg/ha for the 1st cropping season and 360 kg/ha for the 2nd cropping season, respectively. Whereas the grain volumetric weight and taste value were better with the application nitrogen at 120 kg/ha for the 1st and 2nd cropping season. The protein content of milled rice and chlorophyll content of mature leaves were higher with the increasing amounts of application nitrogen, but the protein content had the negative correlation with taste value. Base on the economics and grain qualities, application of nitrogen at 120 kg/ha or lower amounts for the 1st cropping season and 2nd cropping season of rice variety Taitung 35.

Keywords: Japonica rice, Nitrogen fertilizer, Grain quality, Grain yield

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