

Pitchaya Chaiyapoom 2010: The Analysis of RD 12 Glutinous Rice Adoption and Economic Returns in Nong Khai Province, Crop Year 2007/2008. Master of Science (Agricultural Economics), Major Field: Agricultural Economics, Department of Agricultural and Resource Economics. Thesis Advisor: Ms. Orachos Napasintuwong, Ph.D. 118 pages.

The main objectives of this research are to analyze cost and returns of glutinous rice production, and to analyze factors influencing the adoption of RD 12 glutinous rice. RD 12 has recently been certified by the Rice Department and introduced to farmer in 2007 to resolve the drought problem in Nong Khai Province. RD 12 glutinous rice can be grown in an upper land area and where the rainy season is short. Furthermore this variety is blast-resistant and has good cooking quality. The study areas are those in Nong Khai Province where RD 12 has been promoted. A multinomial logit model is adopted for four rice production decisions. Those are 1) neither RD 12 nor HangYi 71 2) HangYi 71 only 3) both RD 12 and HangYi 71 4) RD 12 only.

The results from costs and returns analysis show that, in the upper land area, RD 12 glutinous rice has the highest costs, returns, and net profit. However, in the lower land area, RD 6 glutinous rice has the highest costs, returns, and net profit. The results from farmers' adoption decision show that receiving seed samples from Nong Khai Rice Research Center and, higher proportion of upper land areas to total production area are important factors that will increase the probability of RD 12 glutinous rice adoption. On the contrary number of household labor will reduce the probability of RD 12 glutinous rice adoption. Therefore, in order to promote the adoption of RD 12 glutinous rice. Providing seed samples of to farmer in appropriate areas, specifically upper land, and to small-size household would increase the probability of farmers' adoption.

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Thesis Advisor's signature