

Profit Efficiency of Hybrid Rice Production in the Central Vietnam

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Abstract

Thanks to its high yield, hybrid rice could contribute significantly to hunger eradication, poverty reduction, and national food security, especially in Central Vietnam where productive conditions are poor, and cultivated farmland is small and fragmented. The rate of hybrid rice adoption is declining in recent years, partly due to unattractive profit. The objectives of this study are to determine the profit efficiency of hybrid rice production, and to identify determinants of profit inefficiency using farm-level data collected from 328 rice farmers in Central Vietnam in the winter-spring season of 2012/2013 by a three-stage stratified random sampling method.

Based on profit maximization assumption, a stochastic translog normalized profit frontier function was employed. The results showed that the average profit efficiency of farmers' hybrid rice production in Central Vietnam was 0.63, indicating the existence of inefficiency. The research also found that age, educational level, rice-cultivated area, irrigation, share of rice income, share of hybrid rice area, frequency of training attendance about hybrid rice production, experience of hybrid rice production, and the topography of farm are robust determinants of profit inefficiency of hybrid rice production among farmers.

To enhance households' profit efficiency from hybrid rice production in Central Vietnam, policies to improve educational level, increase training about hybrid rice production, improve irrigation system, and promote high-quality hybrid rice intensive production should be reinforced, especially in the upland areas.