

学 位 論 文 の 要 旨

論文題目 **Improvement of Thai Farmers' Livelihood through Alternative Rice Farming:
A Case Study of Japonica Rice in the Northern Thailand**

代替稲作によるタイ農民の生計向上ー北部のジャポニカ米生産の事例研究ー

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Purpose and Objectives

The structures of Thai rice production and marketing have recently changed. Nowadays, farmers have faced many problems in rice cultivation influencing their income such as high production cost and lower market price and yield of paddy. Some farmers have cultivated other crops or moved to non-agricultural sector more. Moreover, Thailand has lost a leadership of the largest rice exporter in the world rice market because of intense competition. These changes have deeply affected the situations of Thai rice production and marketing. Consequently, the government and private sectors have encouraged farmers to cultivate alternative rice that can meet the needs of particular target consumers in specialty rice market. The aims of this encouragement were to increase farmers' income, and to add value and diversity of Thai rice to enhance the competitiveness in the world rice market. Naturally, the marketing processes of both ordinary and alternative rice are different. Alternative rice farming such as Japonica rice in the north produced through contract farming (CF) systems which are handled by particular rice mills. Alternative rice cultivation like Japonica rice may be a good way for increasing farmers' income due to high return and market certainty. However, it is difficult to identify whether or not agricultural production through the systems is beneficial for farmers because each rice mill has a different management approach.

This dissertation focused on the production and marketing of Japonica rice because demand for Thailand's Japonica rice (THJR) has continuously increased. The purpose of this research is to investigate the farmers' benefit from current production and marketing of THJR. To achieve this purpose, the dissertation has four particular objectives, as follow: 1) to explore characteristics of THJR production through CF systems; 2) to analyze costs and earnings of growers, particularly in Chiang Rai Province; 3) to examine the current marketing system of THJR and 4) to evaluate the perspectives of Thai consumers towards THJR

Methodology

Chiang Rai Province (Northern region) and Bangkok (Central region) were selected as study areas

of this research. In production side, Chiang Rai Province was selected as a study area because it is a most proper area for planting Japonica rice. Two rice mills, 36 growers and 3 officers of Chiang Rai Rice Research Center (CRI) were selected as the representatives. They were interviewed according to the specific objective 1) and 2). In marketing side, 5 rice mills in Chiang Rai Province, 4 distributors, 3 retailers, 4 managers of Japanese restaurants and 385 Thai consumers in Bangkok were selected as the respondents for in-depth interviewing to answer the particular objective 3) and 4). All respondents were selected by using the purposive sampling method. Interviews were conducted basically using in-depth and face-to-face interviews by using structure questionnaires. The primary data collections were conducted during 2014 to 2015. This research adopted the following analysis tools: (1) quantitative data analysis (descriptive and inferential statistics), and (2) qualitative data analysis.

Japonica rice production through contract farming systems in the northern Thailand

The current characteristics of THJR production through CF systems were based on the intermediate model. The rice mills in the selected research sites needed to process through collectors who acted as a local coordinator and consultant for the contract farmers in the system. Japonica rice contract farming (JRCF) was regarded as a type of the production management contract, in which the contract rice mills would guarantee the purchase price of paddy, and provided extension services and agricultural inputs, particularly Japonica rice seeds for growers. The CRI was a main producer of such seed to distribute to rice mills. Each rice mill had a different management on signing a contract, setting up purchase price, and commission and transportation fees for their collector. A strategy of pricing could attract farmers to participate in JRCF. The production of THJR had advantages rather than disadvantages, especially as regards high contract price and assured market, as well as high yield.

Costs and earnings of Japonica rice growers through use of the contract farming systems

Moreover, some rice mills were not very strict with their contract farmers. They allowed the farmers to buy fertilizers and agricultural chemicals from any other suppliers whose prices were cheaper than the contract rice mills. However, the collector who also planted Japonica rice would mainly purchase such inputs on credit from their rice mills. They stocked and sold such inputs to their farmers, and used for their Japonica rice farming. Therefore, the collectors had higher production cost than contract farmers, which led to lower earning. The use of fertilizers provided from extension service of contract rice mills had a significant impact on the economic structure of growers. Nevertheless, the system of JRCF could help growers realize a higher price and high yield which brought more income. Japonica rice growers had a lower production cost and higher income than non-contract glutinous rice growers in the same region. Therefore, Japonica rice cultivation through CF system enhances income of growers in Chiang Rai Province.

Marketing system analysis of Thailand's Japonica rice in the domestic market

The current marketing system of THJR in domestic market found that rice mills had a significant role affecting the market price of Japonica rice. The retail price and paddy price of Japonica rice were quite distinct. Milled THJR from rice mills were distributed to domestic consumers through distributors or wholesalers who are located mainly in Bangkok, retailers and Japanese restaurants. The main users of polished THJR were Japanese restaurants, which their cooking

with such rice is increasing. Analysis on buyer attitudes towards marketing obstacles of THJR found that a cheaper price of Vietnam's Japonica rice was a key obstacle for development of its business in the domestic market. However, such import is decreasing because Thailand has a great potential to produce Japonica rice more and more. An unstable market price of Japonica rice was an obstacle for trading THJR, which the Rice Pledging Scheme of government was a main factor affecting price of Japonica rice. A quality of milled THJR, especially yellow in color of grain was also a problem in the market, however, this problem rarely happened. With regard to the positive aspects for marketing of THJR, the buyers indicated that the government and private sectors should promote the planted area and consumption of THJR more.

The perspectives of Thai consumers towards Thailand's Japonica rice

The final party involved in the process of THJR distribution in domestic market was consumers. The most respondents enjoyed to consume Japanese cuisine at the restaurants, especially in the shopping malls. They visited the restaurants once a month. Their consumption is increasing when compared to the frequency of consumption in the past. Such behavior influenced the increase of demand for Japonica rice as well. The flavor of food in Japanese restaurants was the most important factor for choosing the restaurants. Therefore, selecting a good quality of food ingredients including Japonica rice can improve a good taste of Japanese cuisine as well. The evaluation of their preference for different Japonica rice choices found that THJR was chosen as the second best in all attributes, which its flavor, smell and soft sticky texture were similarly to the original Japanese rice from Japan. However, an imported Japonica rice from Vietnam was a competitor product for THJR because its attributes particularly smell and soft sticky texture were comparable to THJR. Analysis on respondents' attitude toward THJR consumption, they had a positive attitude. They agreed that the northern region had a great potential to produce Japonica rice for consumption in the domestic market, and THJR would be a good alternative rice for Japanese restaurants and consumers by considering its attributes.

Conclusion and recommendation

According to the current study, farmers in the selected areas received the actual benefits from THJR production and marketing. They could produce Japonica rice with a high yield and more income because of the better knowledge of cultivation practices and other support services from extension officers of contract rice mill, except supply of fertilizers. They also obtained the high contract price and certain market under the JRCF. Moreover, the domestic consumption of THJR expands continuously because of increasing consumption behaviors for Japanese cuisine. The buyers of THJR have also continued to purchase milled Japonica rice from their suppliers with the same amount. Furthermore, consumers had a positive attitude toward THJR consumption. These viewpoints have a positive impact on THJR production in Chiang Rai Province. However, the CRI should more improve and develop a quality of Japonica rice seed, in order to increase the efficiency of Japonica rice production and to be more suitable for the environment in the northern part.