

Thesis Title Economic Feasibility of Production Expansion of
Hom Dawk Mali Rice

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Abstract

Rice export and its low price have been problems for Thailand in the past decade especially for low quality rice. One of solutions to the problems is to replace low quality rice by good quality, high priced and good potential market, Kao Dawk Mali (KDML) rice. Therefore, this study aims to analyse possibility to expand KDML rice production by evaluating feasibility at the farm level and possibility to raise farm price of KDML.

The farmer interview was conducted in 2 provinces, Chiang Rai and Surin to represent North and North-east, respectively. The survey included 150 for each province consisting of farmers who grew KDML,

RD 15 and RD 6. The farm survey data were used for comparison of returns to production of the 3 varieties and to analyse possibility to reduce unit cost of KDML. The market information including the interview of local merchants, millers and exporters, and price statistics, was used to analyse market structure, price determination and price transmission.

Most of Chiang Rai farmers grew RD 6 for home consumption and KDML for market which is opposite to the purpose of Surin farmers. However, the farmers of both provinces reported they grew KDML and RD 15 because both varieties are suitable for the rainfed upland areas and RD 6 for better water conditioned areas. Yields of the 3 varieties for the similar land type were similar ranging 350-540 kg/rai in Chiang Rai and 140-310 kg/rai in Surin.

Total production cost in this study includes only variable cost. Total cost per rai of all varieties did not differ within each province. However, the cost per rai in Chiang Rai (1,600 baht/rai) was double of those in Surin (800 baht/rai). The unit costs of KDML, RD 15 and RD 6 in Chiang Rai were 3.82, 3.85 and 3.16 baht/kg and those in Surin were 3.26, 3.55 and 3.15 baht/kg, respectively. The gross margin were 0.20, 0.15 and 0.64 baht/kg in Chiang Rai and 0.93, 0.67 and 0.47 baht/kg in Surin.

Marketing analysis shows that 73% of paddy were sold to local buyers and only 27% sold directly to millers. Prices paid by both buyers were almost identical. Gross margin to marketing services of exporter were largest (1,671 baht/ton) followed by wholesalers (787baht/ton) millers (218-241 baht/ton) and local buyers (20 baht/ton).

Local market of KDML was highly competitive but the export market could be considered as monopolistically competitive. For 69% of the export volume were shared among 25% of exporters. Price cutting was a market strategy. Mixing other rice varieties to KDML was also used to reduce offered price. These strategies depressed export price eventhough Thailand could have set the export price of KDML. The price of KDML was determined by the export market. Subsequently, the exporters paid the millers its export price substracted by cost and a certain margin. The millers charged the wholesalers the quoted price. The paddy price offered by the millers was residual of the quoted price minus millers' cost and gross margin. The analysis of price transmission indicated that during low price period (or when price reduced) if export price would change by 1 baht/ton, the paddy price would change by 0.45-0.52 baht/ton (or for 0.42 conversion ratio of paddy to rice, it was 1.08-1.20 baht/ton). For the high price period the transmission was slighly lower, but it was not statistically significant.

The possibility of expanding of KDML production in the North is high as farmers could raise yield and reduce its unit cost. In the RD 6 growing areas, KDML could perform equally well with appropriate management. As for the North-east, KDML has outperformed other varieties. The high feasibility to expand KDML production in both regions lies on more attractive price which is possible provided that the government has good measure to prevent price rivalry of the exports.