

## Abstract

Thesis Title : A Feasibility Study on Contract Farming  
of Pineapple Processing Industry in  
Northeastern of Thailand

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Agro - industry is one of the key industries vital to the Thai economy, particularly during the past recent years. Development of agro-industry in Thailand is attributed in part to the expansion of processed pineapple industry, which has been one of the country's major items. However, the industry has faced with many problems. Recently, more and more processed pineapple manufacturers move their factories to the Northeast where agricultural areas are still available. Implementation of the project to encourage more pineapple growing to supply factories in those areas is expected to help increase farmers' income as well as solve the problem of shortage in raw materials on the part of manufacturers.

Objectives of this study include a survey of general situation of pineapple growing under the contract farming system; an analysis of financial feasibility of

pineapple farm investment; and an assessment of key factors affecting farmer's decision to join the pineapple contract farming promotion project.

Samples for this study is selected, by using the systematic random sampling method, from 3 villages in the area of Kaokloy-Naklang Reserved National Forest. Udorn Thanee province. Data and information for the second objective are drawn from 3 main sources-farmers in the areas, processed pineapple factories who are partners in the contract farming arrangement, and the office of Agricultural Economics. An econometric model is employed to achieve the third objective while the first objective is accomplished through series of interviews with farmers, middlemen, main personnel from various factories, and concerning goverment officials. Beside pineapple, tomato contract farming system in Nong Khai province and some other adjacent areas is also adopted as the proxy to explain actual behavior and situation of contract farming in the Northeast.

In the financial feasibility study, planted areas of 1 rai and 15 rai are proposed as the farm model. The study is conducted in 2 situations, namely the before financing and after financing situations, and a 12% discount rate is used. Under the before financing situation of 1 rai model, NPV, B/C ratio, IRR and the payback period are 2,977 baht, 1.34, 31% and 2.11 year respectively. The figures for the after financing situation are 2,981, 1.14, 39%, and 3 years respectively.

In the 15 rai model, the before financing situation reveals figures of 64,345 baht, 1.28, 46%, and 2.5 year, while figures for the after financing situation are 64,366 baht, 1.23, 61%, and 2.7 year. When an increasing cost is assumed, the sensitivity analysis shows that the project will still be viable if the cost rises not higher than 15% of the projected planting possibility.

The Logit method is employed to identify key factors affecting farmer's decision to join the pineapple contract farming production. Two groups of farmers are studied, namely those who are willing to join and those who are not. The analysis identifies 11 key factors including sources of income (INC), value of total assets (ASSET), types of expenses (EX{}), debt situation (DEBT), size of irrigated areas (IRRL), ratio of land per family member (LLB), ratio of land per family labor force (LFPR), traditional crop (CROP), information (INF), level of education (EDUC), and age (AGE). The important factors increasing level of willingness to join are types of expenses and debt situation, while those decreasing the willingness to join include total assets and irrigated areas.

The study recommends that more emphasis should be placed on pineapple contract farming with price guarantees as it will help to increase supply of pineapple for processing factories. However, problem of capital fund shortage is still apparent and needs to be solved quickly. Moreover, to increase farmer's willingness to join the

contract farming system, both the processing industry and concerned government agencies need to develop a better system to disseminate information and transfer technology to the farmers.