

The objective of this study, "The Analysis of Farmers' income risk in Nakhonratchasima province", is to determine the appropriate size of planted area that can minimize income risk of farmers. This study attempts answer the question farmer have risk aversion behaviour and the study effect of Government policies and the effect of changes in interest rate from production practices.

The study utilizes Markowitz non-linear programming Model, a tool to analyze farmer's behaviour as well as the policy implementation on farm production. By applying the model, use many objective is to minimize total absolute deviation (MOTAD). Finding from this study show that in similar Agriculture Planning Unit (APU), i.e., the areas under the same conditions, for instance the similar condition supply of water resources, soil types, and level of people's participation, the cropping pattern of each area will differ subject to the variation in income expectation. The results of this study also confirms the hypothesis that farmers in Nakhonratchasima are "risk-aversion". When income risks is considers as an observes of income.

The introduction of crops diversification program and the changes in interest rate reduce income fluctuation. An interest rate from 14% to 12% and 9% does not changes the level of production either in terms of crops area or the commodities production. In the areas where changes have been observes, it is noted that the effect is only minimal.