Research article



Synthesis of Graduation Theses in Agricultural Commodity Production Adhering to Government Designated Standards

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Abstract The objectives were to analyze 1) the research methodology of graduation theses, 2) the result of graduation theses, 3) problems on commodity production adhering to government designated standards, and 4) synthesis of guidelines on the development of commodity production adhering to government designated standards. The sample population was 58 graduation theses agricultural extension and development in agricultural commodity production adhering to government designed standards. Twenty-six samplings were determined using purposive sampling methodology. The findings were as follows: 1) All the research methodology of the graduation theses followed quantitative research. Seventy percent studied by determining the sampling, and all the theses followed sampling methodology using Taro Yamane formula. Ninety-five percent selected sampling using the simple random sampling methodology. 2) Fifty percent of the theses were completed during the academic years 2001-2005, 34% were completed during years 2006-2010, and 16% were completed during years 2011-2015. Ninety-two percent studied good agricultural practice (GAP). Regarding agricultural commodities, 38.5% studied the production standards of fruit plants, 26.9% vegetables, 15.4% cattle, 11.5% rice and corn, and 7.7% flowering plants. In the academic aspect of agricultural extension and development, 38% studied the usage of agricultural production standards, 30% studied the adoption process, and 15% studied the learning process. 3) Regarding problems, most were at low level with agricultural commodity production adhering to the designated standards, and 4) To syntheses guidelines, related sectors should transfer knowledge and examine production regularly to comply with designated standards and reinforced them to create brand recognition and increase market opportunities.

Keywords synthesis of graduation theses, agricultural products production, standards

INTRODUCTION

Agricultural Extension and Development course opened for Graduate School in the year 2000. Graduate research relating to agricultural commodities production adhering to government designated standards such as GAP (Good Agricultural Practice) and export standards has been published in national and international documents and accepted worldwide. Further, research results were beneficial for agricultural extension, learning management and curriculum development and improvement.

However, the research results have never been categorized or synthesized to determine the direction of the results, the background of the theories, the categories and variables, variable definitions and research methodology. Therefore, the researcher was interested in analyzing and synthesizing graduation theses in agricultural commodity production adhering to standards that would be of use in advising students and scholars interested in research on agricultural development. Moreover, the results will comprise a database for teachers and a reference source for students.

OBJECTIVES

The purposes of this research were as follows: 1) to examine the research methodology of graduation theses, 2) to examine the results of graduation theses, 3) to examine problems regarding commodity production adhering to government designated standards, and 4) to synthesize guidelines on the development of commodity production adhering to government designated standards.

MATERIALS AND METHODS

- **1. Research design:** This research was designed as survey research.
- **2. Population/Samples:** The population was 58 graduation theses on agricultural extension and development in agricultural commodities production adhering to government designated standards, 26 samplings were determined using purposive sampling methodology.
- **3. Research instrument:** Survey was used as the research instrument.
- **4. Data analysis:** Descriptive statistics and content analysis were used to analyze the data.

RESULTS AND DISCUSSION

Research Methodology of Graduation Theses

All the research methodology of the graduation theses followed quantitative research. Seventy percent determined the sampling, and all researchers determined their sampling using the Taro Yamane formula. Ninety-five percent selected sampling using simple random sampling methodology. Most research methodologies used quantitative research because this determines factual knowledge from research results which has the least error. Thus, data collection was designed as number and variables were controlled. Instruments for data collection, data analysis and evaluation were prepared systematically. Kijpreedaborisut (2008) explained that the advantage of quantitative research was that it looked for the facts systematically, applied predictions and searched for correlations between variables, considered each variable rationally, applied statistical analysis and referred the results to the population group. However, the researcher considered that research on agricultural extension and development related to Social Science which studied social phenomena. Inferences from quantitative research were unable to deal with phenomena and consequently qualitative research was required.

Result of Graduation Theses

Analyzing the time spans of the graduation theses, 50% were completed during the academic years 2001-2005, 34% during 2006-2010, and 16% during 2011-2015.

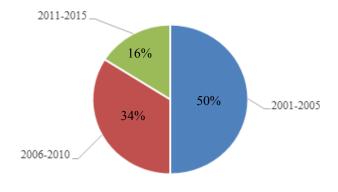


Fig.1 Time spans of the graduation theses

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To analyze the type of product standards, 92% studied good agricultural practice (GAP). Results concurred with the declaration of GAP following the National Bureau of Agricultural Commodity and Food Standards (ACFS) (2016). The Thai agricultural standard TAS 9001-2009, good agricultural practices for crops was first announced as an Act on 6 November 2003, with an amendment in the GAP manual 2007. This inspired student interest in conducting theses on Agricultural Commodity Production Adhering to Designated Standards, particularly in regard to GAP. However, research on GAP declined because the subject had been sufficiently covered. Students emphasized on other topics consistent with the changing areas of interest.

To analyze the type of agricultural products, 38.5% studied the production standards of fruit plants, 26.9% vegetables, 15.4% cattle, 11.5% rice and corn, and 7.7% flowering plants. Results were consistent with the types of plant that required GAP certification. From GAP information, there were 24 standards regarding plants which accounted for 63%, whereas only 24 relating to animals at 37% (ACFS, 2016). Therefore, the majority of researchers emphasized on the study of plants.

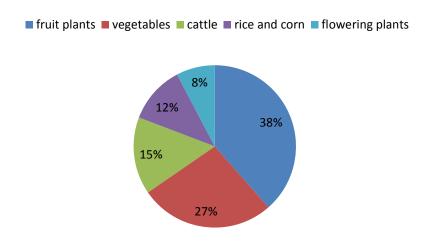


Fig.2 Type of agricultural products studied in graduation theses

To analyze the graduation theses in the academic aspect of agricultural extension and development, 38% studied the usage of agricultural production standards, 30% studied the adoption process, and 15% studied the learning process. The results could be explained by the agricultural extension concept; to transfer knowledge to agriculturists to accept innovation to make positive economic, social and environmental change. The 5 step adoption process postulated by Rogers and Shoemaker (1978) consists of awareness step, interest step, evaluation step, trial step, and adoption step. Agricultural Commodity Production Adhering to the Standards was the research on the first step, the awareness step, and accounted for 15%. The researcher considered that research on step 1 or the awareness step was only a preliminary study or the first step of the adoption process that required further research to study step 5, adoption step. However, results showed that many researchers studied from to step 1 through to step 5, which was called in this research as the usage of agricultural production standards and accounted for 38%. Thus, the research should emphasize on the study to achieve step 5, or the adoption step of the study through all 5 steps.

Problems on Commodity Production Adhering to Government Designated Standards

To analyze the problems, most had difficulties at a low level with agricultural commodity production adhering to designated standards. Results indicated that agricultural commodity production adhering to designated standards in Thailand had been applied for a long time with the use of GAP since 2003. Agricultural commodity production adhering to designated standards was constantly promoted to the agriculturists. As a result, the problems eventually decreased.

Synthesis of Guidelines on the Development of Commodity Production Adhering to Government Designated Standards.

To synthesize guidelines based on the result of graduation theses, related sectors should have transferred knowledge and examined production regularly to comply with designated standards and reinforced them to create a brand symbol and increase market opportunities. Findings were in line with the report of a seminar on the guidelines of GAP projects in 2013. One of the problems of commodity production promotion adhering to GAP since the Act came into force was the lack of agricultural extension staff and consultants. Most were new staff who had less experience and knowledge (Department of Agricultural Extension, 2013). Therefore, this research reflected the guidelines of agriculturists that transferred knowledge and examined production regularly to comply with designated standards and promoted the brand symbol to increase market opportunities.

CONCLUSION

This research on Synthesis of Graduation Theses in Agricultural Commodity Production Adhering to Government Designated Standards illustrated that all the research methodologies of the theses followed quantitative research methods which determined factual knowledge with the least error. Qualitative research should also be applied since research on agricultural development and extension was a social science that studied social phenomena that changed continuously. Findings showed that research into the possibility of the change in Agricultural Commodity Production Adhering to Government Designated Standards was during 2001-2005 and 2006-2010. These were periods when Thailand announced that agricultural commodity production should adhere to designated standards. Most researchers focused on plant products rather than animal products since there were more agricultural commodity production standards for plants than for animals. Researchers emphasized on the study on the 5 steps of the adoption process, particularly steps 1 and 5. Research should focus on the study of step 5, adoption process or study through all the steps. The problem of agriculturists in production adhering to standards was at a low level. However, there was the problem of transferring knowledge of production adhering to standards because of staff insufficiency. As a result, the guidelines of knowledge transfer development which agriculturists require and need to create the brand symbol of standards and increase market opportunities is lacking.

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