

Preeyawan Surasrisakul 2010: An Analysis on Potential of Marketing and Production of BT Bacteria Product for Bio – Pest Control. Master of Science (Agricultural Economics), Major Field: Agricultural Economics, Department of Agricultural and Resource Economics. Thesis Advisor: Mr. Chakrit Potchanasin, Ph.D. 195 pages.

The main objectives of this study were to study on potential of BT bacteria product marketing and to analyze on potential of its production. The data were collected via interview from 9 BT retailers, 21 farmers in Amphoe Muang, Changwat Kanchanaburi who are using BT bacteria product as well as researchers of research project, Development of Concentrate BT Production at Pilot Scale, of Kasetsart University. Descriptive analysis and statistics were applied and used to describe and explain the potential of BT bacteria product and farmers' attitudes. In addition, financial analysis was achieved in order to analyze potential of investment in 3 production conditions under 15 years project life and 5.25% discount rate. The conditions consist of (1) production by using 50 liters starter and 1,000 liters fermenter (2) production by using 100 liters starter and 2,000 liters fermenter and (3) production by using 150 liters starter and 3,000 liters fermenter. Furthermore, to analyze BT production investment risk, sensitivity analysis was performed to analyze production in 3 situations where (1) under 10% increasing of bacterial culture media cost without changing of return (2) under 10% decreasing of BT product price without changing of cost and (3) under 10% increasing of bacterial culture media cost with 10% decreasing of BT product price.

The study results on potential of marketing show that BT bacteria product has the potential and competitiveness quantified at moderate level. In addition, the results show high level of farmers' attitude satisfaction in BT use. The results on potential of BT production show feasibility of BT production in all conditions where analyses gave positive net present value (NPV), greater than 1 of the benefit cost ratio (BCR) and higher than capital opportunity cost of internal rate of return (IRR). From sensitivity analysis, the results under the most of all production situations still show BT investment feasibility. There was only the case of 10% increasing in bacterial culture media cost with 10% decreasing of BT product price under production scheme by using 50 liters starter and 1,000 liters fermenter showing financial unfeasibility. In addition, analysis results of switching value test present higher ability to be feasible of BT bacteria production towards cost variation than variation from income side. Based on these results the study can conclude that BT product production has not only marketing potential to perform in the industry but also investment in BT product production is financially feasible.

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Thesis Advisor's signature