



Cost and Return on Investment of Organic Morning Glory Plant: Case study of Rinsawat Community, Sub District Taweewattana, Bangkok

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Abstract

Study on Costs and Return on Investment of Organic Morning Glory Plant. A case study of Rinsawat Community, Thaweewattana, Bangkok. The objective of know the costs and return of organic morning glory plant to collecting data by submitting questionnaire for the 10 farmers in Rinsawat Community. The analyze cost and return to analyzing the payback period (PB), net present value (NPV) and internal rate of return (IRR).

The results showed that return on investment of organic morning glory plants: A case study of Rinsawat Community, Thaweewattana Bangkok, generated 72,000 baht in the first year of sales total of 5 years, equal to 410,400 baht and cost profit in the first years 39,593 baht and total 5 years 470,237 baht.

The payback period is 2 months 15 days which is acceptable there is a payback period not more than 5 years, the net present value is 28,604.66 baht, in value calculated as a plus shows that return on investment is higher than the discount rate. The discount rate used is the loan rate in the market about 8 percents which is acceptable and the actual rate of return is equal to 11.46 percent.

Keywords: *cost, return, organic morning glory farm*

1. Introduction

Thailand is a country landscape suitable for agriculture which is considered the number one of an export agricultural product that can import income into the country organic as vegetables are also typed of an agricultural product that both Thai and foreigners used their consumption. Especially people who love health popular eating non-toxic vegetables to maintain health (Piyarat Techachueb, 2014) and the majority of farmers in the production process while the population growth rate is rapidly increasing. The population of Thailand about 65 million people, a statistic 2017 years and the population around the world also increased the amount of higher consumption of the world closer. This era of change that whether is a story, news, information, events, and the Nakorn transport to people all over the world. Confronted without blocking is an era of consumers that influence various markets of a small production but can be sold Consumers, regardless of every corner of the world, are aware of safe consumption

Thaweewattana district has an area of 50.219 sq. km. divided into 2 administrative districts which are Thaweewattana, Rinsawat community, 162 households and a population of 1,002 people. Due to good soil condition and fertility, it is suitable for agriculture in the Rinsawat community

Morning glory is a vegetable in the family. Convolvulaceae The scientific name *Ipomoea Aquatica* forsk is a vegetable native to tropical Asia, Africa and Australia spread to various tropical regions of the world. Chinese morning Glory is a vegetable grown for the consumption of leaves and stems. Which can be used for cooking widely, such as stir fry morning glory, eat fresh curries, noodle dishes or use as vegetables to dip in chili sauce. Therefore popularly grown morning glory Both planting for fresh consumption and seed production currently, Chinese morning glory has developed is an important export plant by exporting both fresh vegetables and seeds Chinese morning glory is a very popular vegetable. Because Chinese morning glory has a high nutritional value as it contains vitamins and minerals that are essential to the body. Especially vitamin A, which helps to nourish the eyes as well up to 9,550 international units that can be eaten fresh 100 grams or vitamin A up to 6,750 international units that can be eaten. when cooked 100 grams. Calcium, phosphorus and vitamin Care are also important components. Besides, Chinese morning glory is a vegetable that is easy to grow and can grow quickly in all parts of Thailand, every season and has a short harvesting period. This is widely grown and morning glory is a vegetable that has been popular with Thai consumers for a long time to the trunk is plump, straight, large, colorful, an appetizing plant that is easily cultivated. It can be sold throughout the year. The most popular varieties from consumers and

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growers are bamboo leaf morning glory that resembles a slender leaf-like a bamboo leaf without long joint segments, straight stems. Besides, this morning glory will look appetizing is a cultivar that sells a good price. Chinese morning glory is a popular vegetable planted and eaten fast grows has a planting period of less a month. Popularly eaten fresh and is an important vegetable used for adding noodles with crispy, no foul smell Chinese morning glory is cultivated for commercial purposes. Used for eating fresh morning glory Eaten together with other foods, such as papaya salad, cooked fried foods such as stir fry morning glory Stir-Fried Pork Cooked curry such as sour curry, boiled curry, boiled as vegetables, dip in chili paste Boiled noodles Yentafo

Organic vegetables are food produced by the manufacturer for economic returns and consumers are satisfied with safe food intake. From the current consumption situation that consumers see the importance of healthy. If the manufacturer the market has expanded, it means Income or return to manufacturer marketing officers those who promote and support are affected according to the goals of each section and lead to the problem of studying the cost and return of investment organic Chinese morning glory planting: a case study of Rinsawat community, Taweewattana District, Bangkok The main occupation is rice farming and the secondary occupation is the production of organic vegetables. Most of the products will be sold to the market, private companies for distribution to foreign countries and parts within the country. Especially morning glory is a vegetable produced throughout the season and is popular consumers ranked in the top five. There are production and distribution (Dusadee Promthat, 2016)

Therefore, Cost and return on investment of organic morning glory plantation: Taweewattana Bangkok. It will be lead to the decision to produce and promote agricultural production stable income in both areas and other areas that have the potential ability to continue to produce.

2. Objectives

Study cost and return on investment of organic morning glory plantation: Taweewattana Bangkok.

3. Materials and Methods

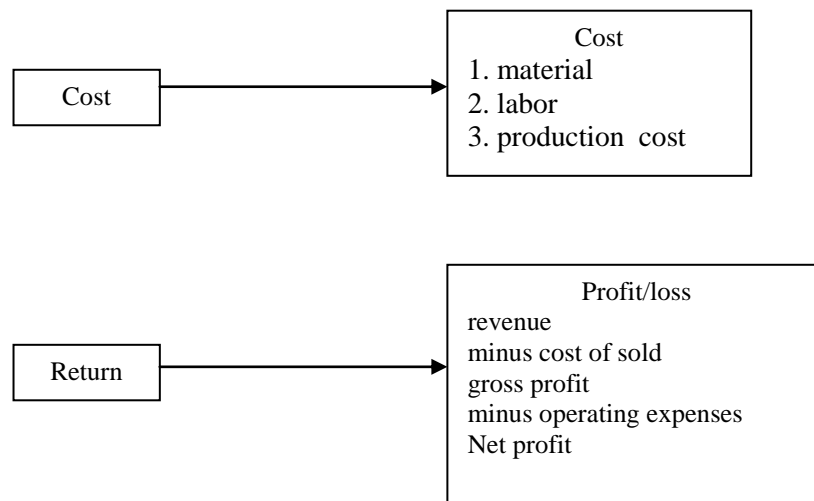


Figure1 Research Framework

Research Design

In this time study: A case study of Rinsawat Community, Taweewattana Bangkok, By collecting data by an interview the farmers who grow organic morning glory plants are successful to be aware of the costs return growing safe Chinese cabbage.



1. Study on the cost of organic morning glory plantation

1.1 Investment cost is the amount of money that must be paid for the initial investment. In this study, the investment cost consisted of land, tools and equipment. Required to proceed grow non-toxic kale.

1.2 Study the return of organic morning glory plantation

2. Assessing the cultivation of organic morning glory plantation

2.1 Payback Period: PB

2.2 Net present value: NPV

2.3 Internal rate of return: IRR

Population and Sample

Determination of sample population studied from 10 sample organic morning glory plantation growers by the specific selection method of Rinsawat community, Taweewattana, Bangkok.

Research Instrument

Study of costs and return on investment grow organic morning glory plantation: A case study of Rinsawat Community, Taweewattana Bangkok. There are tools for data collection, which are interviews using in-depth interviews that are designed to support the purpose of the study's observational methods and methods of growing organic morning glory. By using the interview form divided 4 parts as follows

Part 1 General information of farmers, including management structure operating characteristics, product type, production volume, production process, source of knowledge source of funds under allocation distribution including problems and obstacles production etc.

Part 2 General information about the cost of organic morning glory plantation into 2 parts

2.1 Investment cost is the money that is used to invest the first organic morning glory planting, consisting of land, tools and equipment for growing organic morning glory

2.2 Costs of production of organic morning glory consist of fixed and variable costs such as seeds, fertilizer, labor, water and electricity and depreciation of production equipment.

Part 3 Information regarding the return from organic morning glory planting consists of sales forecast reports. Estimated operating costs Which records data per cycle per year in order to use the data as a tool

Investment assessment of organic morning glory plantation for commercial purposes as follows:

1. Net present value: NPV, if the result has a present value net, is the plus or the present value of the net cash flow greater than the amount of investment to decide whether the project, is acceptable.

2. Internal rate of return: IRR Rate of return the calculated amount should be equal to or greater than the commercial bank loan interest rate of 8 percent in order to measure the ability to assess the return that the return greater bank's loan interest rate. Therefore will be considered acceptable

3. Payback Period: PB There should be a payback period is shorter than the period payback required or have a quick payback period in order to know that in this investment. How long will take to total payback.

Part 4 Problems and obstacles

Data Collection

1. Primary information is a direct data collection from 3 samples, which has successfully managed costs and returns by using the data interview based on the established questionnaire.

2. Secondary data is the information that is used in conjunction with the study which was obtained from research information from various data sources both academic documents searching from the internet related to the cultivation of organic morning glory. To make this study more completed.

4. Results

Part 1 organic morning glory vegetable growers

Mostly male Accounting for 100.00%, aged between 30-60 years, the most accounting for 66.67%, followed by 40-49 years, representing 33.33 graduating from primary school Accounting for 66.67%,



followed by graduation from secondary education 33.33% Operating period 11-25 years, equal to 100%, with an area for cultivation 10-19 square wah, representing 66.67%, followed by cultivation area 20-29 square wah, representing percentage 33.33 has a yield per plot 100-199 kilograms, representing 61.67%, followed by a yield per block 200-299 kilograms, representing a percentage of 33.33 has a selling price of 20-29 baht per kilogram, representing a percentage of 100 and using the storage period of 10-20 days per cycle, representing 100%

Part 2 General information the cost of organic morning glory plantation Calculation of costs and investment costs consist of 3 parts, which are investment costs product costs selling and administrative expenses.

1. Investment cost the cultivation of organic morning glory plantation for commercial purposes use revolving funds to grow organic morning glory plantation the amount of 5,000 baht, which is the personal money of the farmer himself.

- Land area for organic morning glory plantation located in Rinsawat Community, Taweewattana Bangkok consisting of land an area of 15 square meters

2. Manufacturing cost is production costs, meaning all costs related to the production of normal product costs incurred in planting such as raw material cost, direct labor cost and production cost.

- Materials are the most important component of organic morning glory plantation. Because of the main component of organic morning glory plantation and the main raw material used for growing the organic morning glory plantation seeds. Farmers will choose the organic morning glory plantation seeds, they can grow and grow faster than planting dry manure seeds as one of the materials needed. Most farmers prefer to use dried chicken manure as a mixture of soil fertility. In growing morning glory, it helps the morning glory to grow better than other animal dung The rice husk used to sprinkle the ground with Chinese morning glory. Must be black rice husk Black chaff, chaff that has been burned etc.

- Labor means wages or compensation paid to employees or workers who perform duties in planting organic morning glory plantation. Which may be paid on a daily, weekly or monthly basis, daily calculated, depending on the production process of morning glory plantation arranged in step

1, namely clearing the grass, adjusting the soil, shoveling the soil the conversion to prepare the soil. The second step is planting, sowing and covering the seeds.

Step 3 is maintenance and maintenance, prevent weed and pest. Step 4 is to harvest the products by employing only during the period of production per production cycle.

- Manufacturing Overhead means the cost of production factors used in the cultivation of organic morning glory plantation, such as electricity costs, which farmers use natural water sources, resulting in production costs There is only electricity cost because farmers use pumps. Electrical systems for pumping water from natural water sources for use in production, etc.

Summarize the cost of organic morning glory plantation, consisting of 4 steps: soil preparation step, Step of planting maintenance procedures and harvesting procedures In which each step will have raw material costs direct labor costs And the total production cost of 18,499.57 baht per year. In summary, the cost of producing Chinese morning glory is non-toxic per year

Part 3 Information about the return on growing organic morning glory

The return on growing organic morning glory in Rinsawat community, Taweewattana, Bangkok, generated 72,000 baht in sales for the first year and total of 5 years was 410,400 baht and net profit in the first year was 39,593 baht and the total of 5 years is 470,237 baht.

The payback period is 2 months and 15 days which is acceptable. Because there is a payback period of not more than 5 years, the net present value is 28,604.66 baht, the net present value calculated as a plus Which shows that the return on investment is higher than the discount rate. The discount rate used is the loan rate in the market at about 8%. The result of the calculation shows that it is acceptable. The actual rate of return is equal to 11.46 %.

5. Discussion

From the study of the cost and return on investment, the cultivation of organic morning glory in Rin Sawat community, Taweewattana, Bangkok, the results of the study can be discussed as follows



Investment analysis found that the payback period is 2 months and 15 days with a net present value at a discount rate of 8%, equal to 28,604.66 baht and has a real rate of return Equal to 11.46% which has a net present value greater than zero resulting in accepting that consistent with the concept of the return theory of Thanakorn Choksiri Watchara (2011). The total cost of the production of three kinds of vegetables, Cantonese kale and lettuce which produces organic vegetables is higher than the vegetable production by using chemicals in the amount of 51,242.41 baht. And 8,724.03 baht, respectively, and the annual income of the production of safe, toxic vegetables will be higher than the production by using chemicals in the amount of 479,250.00 baht and 180,000.00 baht respectively and Achana Phaophanam (2012) that is, the cost of There was a rise in production, there are three types consist of raw materials, labor and manufacturing costs.

6. References

- Achana Phaophanam, A. (2012). A project to grow organic vegetables. Retrieved 18 November 2017.
- Promthat, D. (2016). *Cost, return and safe vegetable marketing. A case study of Chinese morning glory*. Faculty of business administration and information technology Rajamangala University of Technology Suvarnabhumi Phranakhonsiyutthaya Center.
- Techachasueb, P. (2014). *Costs and returns of investment in free organic Kuicheai vegetable planting project poison for trade in Lamphang Province*, Faculty of Master of Business administration Nation University.
- Choksiriwatcharaj, T. (2011). *Comparison of cost and compensation for organic vegetable production and vegetable production using chemicals: a case study of Buengphra, Phitsanulok Province*. Independent Master of Business Administration (Accounting). Pathumthani: Rajamangala University of Technology Thunyaburi.