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Analysis of Melon Farming Income (Cucumis melo L) in Lombok Village, Long Ikis District, Paser Regency

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Abstract:*This study aims to determine the total production costs of melons (Cucumis melo L) in Lombok Village, Long Ikis District, Paser Regency, to determine the amount of melon (Cucumis melo L) receipts in Lombok Village, Long Ikis District, Paser Regency and to determine the income of melons (Cucumis melo L).) in Lombok Village, Long Ikis District, Paser Regency.*
The research was conducted in Lombok Village, Long Ikis District, Paser Regency, This research was conducted from December 2017 to March. The respondent's determination technique is by determining the total sampling that conducts melon farming. The number of respondents is 15 farmers.
From the calculation results of Melon (Cucumis melo L) in Lombok Village, Long Ikis District, Paser Regency, the average production cost of farmers is IDR. 67.937.139,- in one growing season with an average revenue is IDR. 113.130.000,-, then, the average income obtained by farmers is IDR.45.192.861,-.
Keywords: *Income, Melon farming*

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I. Introduction

Agricultural development, particularly in the food crops and horticulture sub-sectors, is aimed at improving the welfare of farmers, which can be achieved through efforts to increase agricultural yields, productivity and income. Generally, government policies apply to all types of fruit. However, certain fruits are prioritized and made into high-quality fruits, such as rambutan, orange, banana, durian, manga, rujak, mangosteen, duku, guava, pineapple, papaya, and sapodilla. Melon plants do nothave priority.

Agriculture is the science of deploying the resources owned by farmers to operate effectively and efficiently and utilize these resources for maximum profit. Meanwhile, according to Shinta (2011), agriculture studies and investigates various intricacies of agricultural problems and finds solutions. Understand that agriculture is the management of natural resources, labor, capital and other skills to produce agricultural products efficiently. One of the farms that have good development prospects is melon cultivation.

Melon is a top-rated agricultural product, especially among urban residents, because of its delicious and sweet taste, rich in nutrients and low in protein and fat. If appropriately managed, melon cultivation has the opportunity to offer high profits.

Paser Regency has a climate and soil structure suitable for growing melons. Many farmers have grown melons in the area, and the site of melon plantations increased in 2015.

Lombok Village is one of the sub-districts in Paser Regency that produces many food crops and horticultural products. This area has excellent agricultural potential due to good soil fertility—most people who make a living from agriculture use this method. Melon cultivation is a source of livelihood for some residents, including activities.

Lombok village is also one of the melon-producing areas in Paser Regency; this can be seen from the relatively good harvest area. This is inseparable from the role of the local government, which always provides guidance and assistance to farmers so that production can be increased, so that melon farming income also increases. In general, the level of farmers' income is influenced by several components: the amount of production, selling prices, and costs incurred by farmers in their agriculture.

From the description above, the author is interested in conducting a study on **"Analysis of Melon Farming Income (*Cucumis melo L*) in Lombok Village, Long Ikis District, Paser Regency".**

II. Research Method

Research Time and Location

This research was carried out from December 2017 to March 2018. The research location is in Lombok Village, Long Ikis District.

Data Type

1. Primary data is data obtained from interviews with farmers who were selected as respondents, which contains melon farming activities. Primary data was collected by interview, and the researcher used a list of questions (Quisoner) that had been prepared.
2. Secondary data is obtained from literature related to sweet melon farming or from various reference sources in the form of books, newspapers, magazines, journals, brochures or reports of related agencies associated with the research object.

Data Source

Data collection techniques used in melon farming research in Lombok Village, Long Ikis District, Paser Regency are as follows :

1. Interview Method (Interview)

The interview method is one of the data collection methods by giving several questions directly torespondents in the field.

2. Observation Method (Observation)

It is one of the data collection by conducting direct observations on the object under study.

3. Question and Answer Method and Recording (*Quisoner*)

This method collects data by making a list of questions addressed to farmers and accompanied by a recording.

4. Library(*Library research*)

According to Soeratno (2003), library research is collecting data through library materials followed by quoting relevant and valuable parts of the content for the application of data in the analysis.

Method of Collecting Data

The data collection method used in melon farming research in Lombok Village, Long Ikis District, Paser Regency is as follows :

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2. Observation Method (Observation)

Is one of the data collection by conducting direct observations on the object under study.

3. Questionnaire and Recording Method

This method collects data by making a list of questions addressed to farmers.

Sampling Method

In research on the feasibility analysis of Melon (Cucumis melo L) farming in Lombok Village, Long Ikis District, Paser Regency. The entire population of melon farmers (Cucumis melo L), as many as 15 farmers, were all taken as samples or using the Total Sampling method.

According to Sugiyono (2008), The above is in accordance with the opinion that in social and economic research, if the population is less than 100, the entire population should be taken as a sample, and if the population is more than 100, between 15-20% can be taken.

Data Processing and Analysis Method

1. Qualitative Descriptive Analysis

Aims to provide a general description of matters relating to the research object. The things that can be given in the report are :

a. Age of Respondent
b. Gender of Respondent
c. Respondent's Last Education
d. Number of Family Dependents
e. Respondent's Land Area

2. Qualitative Analysis

Quantitative analysis is the calculation of the numbers obtained from the research results and then processed and analyzed in the form of measures as follows:

1. Income Analysis

According to Soekartawi (1995), to find out the amount of income earned by melon farmers in one production, mathematically, it can be formulated as follows:

$$\mathbf{I = TR - TC}$$

In which :

I = *Income* atau Pendapatan (IDR)
TR = *Total Return* atau Total Penerimaan (IDR)
TC = *Total Cost* atau Total Biaya (IDR)

2. Total Cost Analysis (TC)

Total cost the sum of fixed costs and costs, mathematically can be formulated as follows :

$$\mathbf{TC = TFC + TVC}$$

In which:

TC = *Total Cost* (IDR)
TFC = *Total Fixed Cost* (IDR)
TVC = *Total Variabel Cost* (IDR)

3. *Total Return* (TR)

Namely, the multiplication between the products obtained with the selling price; mathematically, it can be formulated as follows :

$$\mathbf{TR = P \times Q}$$

In which:

TR = *Total Return* (IDR)
P = *Price* (IDR)
Q = *Quantity* (Kg)

III. Research Results

Farmer Characteristics

Characteristics of melon rice farmers: age, level of formal education, number of dependents and area of melon farming.

From the results of interviews conducted with 15 respondents on melon farming in Lombok Village, Long Ikis District, Paser Regency, as well as direct observations at the research site, the following is a description of the characteristics of the respondents :

Age

The age of melon farmers in Lombok Village, Long Ikis District, Paser Regency ranges from 30-59 years. The grouping of respondents based on age can be seen in Table 1

Table 1. Classification of Respondents Based on Age Level in Lombok Village, Long Ikis District, Paser Regency

No,	Age Interval (Years)	Total	Percentage (%)
1.	30-40	2	10
2.	41-50	11	80
3.	51-65	2	10
	Total	15	100

Source : Primary Data After Processing, 2017

Based on the data collected, melon farmers generally are of productive age, so they have a better ability to think and act to plan an activity.

Gender

Based on the data collected, the gender of melon farmers in Lombok Village, Long Ikis District, Paser Regency can be seen in Table 2 as follows :

Table 2. Classification of Respondents Based on Gender in Lombok Village,Long Ikis District, Paser Regency

No	Gender	Total	Percentage (%)
1.	Male	15	100
	Total	15	100

Source : Primary Data After Processing, 2017

Formal Education

The formal education of melon farmers in Lombok Village, Long Ikis District, Paser Regency ranges from not completing elementary school to high school. For more details about this formal education can be seen in Table 3 below:

Table 3. Classification of Respondents Based on Education Level in Lombok Village, Long Ikis District, Paser Regency

Number	Level of Education	Amount	Percentage (%)
1.	Elementary School Graduate	6	40
2.	Middle School Graduate	2	15
3.	High School Graduate	7	45
	Total	15	100

Source : Primary Data After Processing, 2017

Based on the data above, it is concluded the education level of melon farmers in Lombok Village, Long Ikis District, Paser Regency is still low, namely only in elementary school, so it will affect the ability of farmers to improve their skills and to absorb information and the process of adopting innovation. According to Mosher (1998), formal education aims to prepare farmers to face life now and in the future. So to overcome this problem, farmers need to get non-formal education, for example, conduct various types of counseling.

Number of Family Dependents

The number of dependents of melon farmer families in Lombok Village, Long Ikis District, Paser Regency can be seen in Table 4 below:

Table 4. Classification of Respondents Based on Number of Family Dependents in Lombok Village, Long Ikis District, Paser Regency

Number	Number of Family Dependents	Amount	Percentage (%)
1.	1-3 People	4	15
2.	4-5 People	11	85
	Total	15	100

Source : Primary Data After Processing, 2017

Land Area

The land owned by farmers to cultivate melons has a range of 0.25 ha, as much as 30% and 0.5 ha, as much as 70%. More details can be seen in Table 5:

Table 5. Classification of Respondents Based on Land Area in Lombok Village, Long Ikis District, Paser Regency

Number	Land Area (Ha)	Amount	Percentage (%)
1.	0,25	6	30
2.	0,5	9	70
	Total	15	100

Source : Primary Data After Processing, 2017

The ownership status of the land used for melon farming in the research area is privately owned and leased. The land is one of the production factors that cannot be separated from farming. The wider the land used to grow melons, the greater the production.

Quantitative s Analysis

In the production structure, costs can be categorized into fixed and variable costs. *Fixed costs* are costs that do not change when the number of output changes. *Variable costs* are costs that affect the quantity of production.

1. Fixed Cost

The fixed costs used in melon farming (Cucumis melo L) and the use of tools used in melon farming (Cucumis melo L) in Lombok Village, Long Ikis District, Paser Regency.

2. Land Tax Fee

The cost of land tax in Lombok Village for each respondent is IDR. 7.000/Mt for melon farming.

3. Cost of depreciation

The depreciation costs of tools incurred in Melon farming include a sprayer, hoe, machete, bucket, and watering can. For more details, the Average Fixed Costs in Melon Farming in Lombok Village can be seen in the following table:

Table 6. Average Fixed Cost in Melon Farming *(Cucumis melo L)*Mt/ha in Lombok Village, Long Ikis District

Number	Description	Average
1.	Land Tax	7.000
2.	Depreciation	49.364
	Total	69.139

Source : Results of Primary Data Processing 2017.

From data table 6, it can be seen that the average depreciation cost for land tax costs is IDR. 7.000/Mt, and the depreciation cost for equipment is IDR. 49.364. It can be concluded that the average fixed cost for the Melondi farming analyst in Lombok Village is IDR. 69.139 ha/Mt.

4. Variable Cost

In melon farming, Variable costs include production facilities, including the purchase of seeds, fertilizers, pesticides, labor, sacks, rapia rope, and land processing and the following descriptions of the components of variable costs can be seen in table 7:

Table 7. Average Variable Costs on Melon Farming *(Cucumis melo L)* Mt/ha in Lombok Village, Long Ikis District

Number	Description	Average (IDR)
1	Seed	1.287.500
2	Fertilizer	19.790.000
3	Pesticide	1.364.000
4	Labor	31.814.667

5	Raffia Rope	360.000
6	Mulch	5.672.000
7	Stake	7.200.000
8	Nylon Rope	180.000
9	Land Clearing	800.000
	Total	67.868.000

Source : Primary Data Processing Results, 2017

From table 7, it can be seen that the seeds cost an average of IDR 1.287.500, fertilizer with an average cost of IDR 19.790.000, pesticides with an average cost of IDR 1.364.000, labor with an average cost of IDR 31.814.667, raffia rope with an average cost of IDR. 360.000, mulch with an average cost of IDR 5.672.000, stake with an average cost of IDR 7.200.000, nylon rope with an average cost of IDR 180.000, and land clearing costs with an average cost of IDR 800.000. It can be concluded that the average cost of using variable costs in melon farming analysts is IDR 67.868.000.

5. Total Cost

Total production costs are the total costs used in melon farming in Lombok Village. More details can be seen in table 8:

Table 8. Average Total Cost of Melon Farming *(Cucumis melo L)*Mt/ha in VillageLombok

Number	Description	Average
1	Fixed Cost	69.139
2	Variable Cost	67.868.000
	Total	67.937.139

Source : Results of Primary Data Processing 2017.

Based on the research results, melon farming from 15 respondents obtained an average fixed cost of IDR 69.139. Plus, the average variable cost of IDR 67.868.000. It can be concluded that the average production cost of melon farming is IDR 67.937.139.

6. Revenue

Revenue is the product of the amount of production with the selling price prevailing at that time. The details of the income of melon farming in Lombok villages can be seen in table 9:

Table 9. Average Melon Farming Revenue *(Cucumis melo L)* Mt/ha

Number	Description	Average Amount
1	Price	9.000
2	Production Quantity	12.564
	Total	113.130.000

Source : Primary Data Processing Results, 2017.

Based on the research results obtained, melon farming acceptance from 15 respondents, the average melon production is 12.5 64 Kg, and the average price/Kg is IDR 9.000, from these receipts obtained an average total revenue of IDR 113.130.000.

7. Income

Analysis of income is calculated based on the amount of revenue minus the total cost of production can be seen in the table 10 below:

Table 10. Average Melon Farming Income*(Cucumis melo L)* Mt/ha in Lombok Village, Long Ikis District

Number	Description	Average
1.	Revenue	113.130.000
2.	Production Cost	67.937.139
	Total	45.192.861

Source : Results of Primary Data Processing 2017.

IV. Discussion

Discussion of the results of Hypothesis 1: It is suspected that the costs incurred from farming melon *(Cucumis melo L)* in Lombok Village, Long Ikis District, Paser Regency is pretty significant.

To understand the costs incurred in the production process. This study's total costs incurred during the melon cultivation process include fixed and variable costs. Fixed costs are costs used in the melon planting process, the amount of which is not affected by the number of products produced. The fixed costs of this farming include depreciation costs for melon farmers' production equipment, such as sprayers, hoes, machetes, and buckets. Thus, the average fixed cost in the analysis of melon cultivation in Lombok is 69.139 ha/Mt.

Variable costs are costs used in the melon cultivation process, which vary according to the number of products produced, including the cost of purchasing seeds, fertilizers, pesticides, labor, sacks, ropes, and tillage, which can be a significant contribution to the costs incurred, which is IDR67.868.000.

The total costs incurred by melon farmers in Lombok Village are fixed costs added to variable costs with an allocation of IDR. 67.937.139.

Discussion of the results of Hypothesis 2: It is suspected that the income of melon farmers *(Cucumis melo L)* in Lombok Village, Long Ikis District, is pretty significant.

To find out the acceptance of melon farmers in Lombok, Long Ikis District, in this study, we first know the total cost of acceptance, TR = PxQ, where the price (price) is multiplied by the amount of production (Quality). Based on the research analysis that carried out direct data collection at the melon plant in Lombok Village, Long Ikis District, Paser Regency, the average production was 12.564 Kg for IDR 9.000. Receipt of IDR 113.130.000.

Discussion of the results of Hypothesis 3: It is suspected that the income of melon farmers (Cucumis melo L) in Lombok Village, Long Ikis District, is pretty significant.

Based on the researcher's hypothesis in this study, the income obtained by mustard farming in Sempulang Village is I = TR - TC, where the difference between Total Revenue is IDR 113.130.000 with a total cost of IDR 67.937.139. So it shows that farmers' income is higher than the total costs incurred, so that melon farming income is high or profitable, namely IDR 45.192.861.

V. Conclutions And Suggestions

Conclution

Based on the results of research on Melon (*Cucumis melo L*) farming in Lombok Village, Long Ikis District, Paser Regency, it can be concluded as follows:

1. The average amount spent on melon farming reached IDR 67.937.139/ha/Mt and an income of IDR 113.130.000/ha/Mt.

2. The average income of Melon (*Cucumis melo L*) farming in Lombok Village, Long Ikis District, Paser Regency is 45.192.861/ha/Mt.

Suggestion

1. In carrying out farming, it is better for Melon (*Cucumis melo L*) farmers in Lombok Village, Long Ikis District, Paser Regency to implement a management pattern and bookkeeping of receipts and expenses so that farmers will know how much it costs and how much income they get.
2. In carrying out melon farming, farmers are expected to use superior seeds as recommended and develop a balanced pattern of fertilizer use on plants.

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