



Income Analysis of Tomato Farming in Paddy Fields in Leuntolu Village Raimanuk District Belu Regency

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Abstract

This study aims to know (1). To know how much the income from tomatoes farming in Leuntolu Village, Raimanuk District, Belu Regency, (2) To know the relative advantages of tomatoes farming in Leuntolu Village, Raimanuk District, Belu Regency. The research was conducted in August 2020. Techniques of data collection using survey methods with primary data and secondary data. The sample used in this study was 30 respondents. The data analysis method used in this research is descriptive qualitative analysis method, income analysis and R / C ratio. The results showed that: the tomatoes farming carried out had several stages including: land processing, seed selection, seed nursery, planting, maintenance (watering, fertilizing and weeding), harvest and post-harvest. The results of tomato farming research with a total revenue in 2018 of Rp. 153,540,000 divided by the total cost of Rp. 73,517,763.00, it will get a relative profit of 2.09 so that tomatoes farming in Leuntolu Village, Raimanuk District, Belu Regency is profitable / provides benefits to farmers in Leuntolu Village

Keywords: Income analysis, Tomatoes

A. Introduction

Indonesia is an agricultural country, which means that agriculture plays an important role in the entire national economy. This can be shown from the number of people or workers who live and work in the agricultural sector, Mubyarto (1994). Data from BPS (2019) shows that the workforce working in the agricultural sector is 35,703,074 workers and the contribution of the agricultural sector to GDP is Rp. 1,043, 60 trillion or 19.62%.

Successful agricultural development can be interpreted if there is high growth in the economic sector and at the same time there is a change in society from a less than good standard of living to a better one. This can be seen from the role of the agricultural sector in providing food, contributing to foreign exchange through exports and so on. Farming is a company because each farmer is economical in producing his own produce for sale or consumption. Farming is a combination composed of several production factors that produce production output.

Currently the agricultural sector is experiencing difficulties amid the Covid-19 pandemic, farmers admit that an abundance of events can affect production yields. What is meant by production is an activity or activity to produce or add value to a product or service in order to

fulfill a need. Our farmers are not getting efficient yields due to a shortage of fertilizers. For the duration of this pandemic, it is difficult to obtain subsidized fertilizers, farmers are forced to buy fertilizers which are not subsidized and are more expensive. With limited capital, the use of fertilizers can also cause problems in production results.

The province of East Nusa Tenggara (NTT) is one of the provinces in Indonesia and has rich natural resources in the agricultural sector. One type of horticultural crop that is cultivated is Tomato. Tomato is a form of agricultural crop with high economic value can be used for various industries such as jam, chili sauce, tomato sauce, tomato dates, drinks, herbs, and cosmetics according to Luntung (2012) in Wulandari (2019). Based on BPS data (2018) Tomato production is 5,465 tons. In accordance with its natural conditions, Belu Regency is dry land where most of it is land and a place for farmers to cultivate. The land condition of Belu Regency consists of wet land and dry land. Tomato production in Belu Regency in 2016 was 242 tons, in 2017 as many as 471 tons, and in 2018 as many as 620 tons. BPS Belu Regency (2018).

Raimanuk District is one of the sub-districts located in Belu Regency. The northern part is bordered by West Tasifeto District, the western part is bordered by Laenmane District, the southern part is bordered by the East Malaka sub-district, the eastern part is bordered by Nanaet Duabesi District. Raimanuk District has 9 villages, namely: Mandeu Village, Faturika Village, Raimanus Village, Rafae Village, Tasain Village, Teun Village, Leuntolu Village, Dua Koran Village, and Renrua Village. One of the villages that has been producing tomatoes for a long time and has become the center of tomato production in Belu Regency is Leuntolu Village.

BPS Belu Regency (2018) data shows that Leuntolu Village with an area of 17 km² and has a population of 2153 people. the number of farmers is 600 families. This data shows that in general the livelihoods of the people of Leuntolu Village are farming and trading which are their daily jobs. Therefore, the community cannot be separated from farming activities. Tomato production in Raimanuk District in 2017 was 140 tons and in 2018 was 54.4 tons.

Leuntolu Village is one of the villages with the largest tomato income in Raimanuk District. Leuntolu Village is one of the villages in this sub-district and has rice fields in the village with various food crops and one of them is rice fields, some of which are planted with tomatoes after the rice harvest. In one year, tomato farmers plant one tomato planting, namely in April and during the harvest in July until the end of the harvest in September. Marketing is carried out to collectors (*papalele*) in the city of Atambua and various neighboring areas including the cities of Kefamenanu and Malaka Regency. Tomatoes farming can also increase farmers income in meeting their daily needs. Tomatoes Production Data in Leuntolu Village is calculated from the last three years, namely 2016 with a land area of 20 acres of production of 4 tons, in 2017 with an area of 30 acres of production of 6 tons, and in 2018 with a land area of 50 acres of production of 10 tons, This data was taken from the Leuntolu Village extension agents.

B. Methodology

1. Research Design

This research was conducted in Leuntolu Village, Raimanuk District, Belu Regency. The time of the research was started from August to October 2020. The selection of Leuntolu Village was because the village was one of the villages that became the center for tomato farming in Belu Regency which use the paddys field after rice harvest.

2. Participants/Respondents/Population and Sample

The population in the village of Leuntolu with a population of 600 households, the population in this study were all farmers who cultivated tomato plants as many as 300 families. The sample is a small part of the population that is taken according to certain procedures so that it can represent the population. The method of determining the sample in this study uses the random sampling method, which is 300 x 10% with 30 members selected, farmers who have cultivated tomatoes are used as respondents for the smooth running of this research.

3. Technique of Data Collection

The data collection was performed by observation and interview questionnaire. Data collection was carried out using survey methods. Where the data collected is in the form of primary and secondary data. Primary data is data obtained through interviews with respondents based on a list of questions prepared in advance. Meanwhile, secondary data is data obtained from related agencies and previous researchers.

4. Technique of Data Analysis

Data analysis using income analysis and R/C ratio. Data obtained from the study were analyzed using descriptive analysis and quantitative analysis to determine net income with the following

formula:

$$\pi = TR - TC \text{ (Soekartawi, 1995)}$$

Where:

π = income Profit

TR = Total Revenue

TC = Total Cost

$$\text{The R/C ratio formula } R/C = \frac{TR}{TC} = \frac{P \times Q}{TFC + TVC}$$

C. Findings and Discussion

1. Tomato Farming Costs in Leuntolu Village

Farming costs are sacrifices that can be calculated with cash value in tomato farming as costs for production targets that are used up to accelerate tomato farming activities. There are two farming costs as follows:

1. Fixed costs

Fixed costs are costs whose value does not depend on the size of an item and does not affect the final results to be obtained from a business. There are several fixed costs, among others.

a. Depreciation of Equipment

Equipment for which the residual value can be calculated includes: hoe, machete, plow, bucket, scissors, sprayer, water motor, hose, basket and raffia rope. chetes, plows, buckets, scissors, sprayers, water motors, hoses, baskets and raffia string.

Table 1 . Depreciation of Equipment

Type of Equipment	total	Depreciation (Rp)
Hoe	47	143,272
Machete	47	162,238
Trowel	47	74,095
Bucket	136	1,702,833
Scissor	74	467,500
Sprayer	30	2,146,250
Water pump	30	15,902,083
Hose	30	1,653,817
Basket	150	1,221,875
Raffia string	34	346,800
Total	625	23,473,963.31
average	69	782465

Source: Primary Data (processed) .2020

The data in Table 1 shows that there are 10 types of equipment used in tomato farming, namely hoes, machetes, plowshares, buckets, scissors, sprayers, water motors, hoses, baskets and raffia ropes. The amount of goods in existence was Rp. 625 with a total depreciation of Rp. 23,473,963.31 and an average of Rp. 782.465,00.

b. Land tax

Land tax paid is Rp. 337,000 with an average land tax of Rp. 11. 233.

c. Total Fixed Costs

The total fixed costs contained in tomato farming in Leuntolu are Rp 223,810,963.31; with an average cost of Rp. 793698.78;

2. Variable Costs

Variable costs are costs that change indirectly and are directly proportional to the amount of production. There are several variable costs, which can be seen in the following Table 2:

Table 2 . Variable Costs

Type of Fee	Total Fee (Rp)
Fuel	11,100,000
Transportation	7,500,000
Fertilizer (Urea, NPK)	7,470,000
Solar	750,000
Drugs	4,200,000
Seed	3,040,000
Consumption	15,300,000
Total	49,360,000
average	1,645,333

Source: Primary data (processed) .2020

The data in Table 2 shows that there are 7 variable costs, namely the cost of gasoline in the amount of Rp. 11,100,000; transportation costs IDR 7,500,000; fertilizer costs Rp 7,470,000; diesel fuel Rp. 750,000; medicine costs Rp. 4,200,000; seed costs Rp. 3,040,000 ; consumption costs IDR 15,300.00; so that the total variable cost is IDR 49,360,000 with an average of 1,645,333;

d. Total cost

The total cost of tomato farming in Leuntolu is Rp 73,170,963.31; with an average total cost of Rp 2,439,031.78;

2. Revenue

The revenue from tomato farming in Leuntolu Village is the result of the multiplication of the total tomato production and the selling price of tomatoes per bucket, so the size of the revenue can be seen from the tomato production and the market price. According to research, tomato production in Leuntolu Village has 10 harvests with different yields for each harvest period. The yield from 10 harvests is three buckets with an average of 129 buckets per respondent. The selling price of tomatoes based on the market prediction for 2020 ranges from IDR 50,000-20,000; so that the revenue for 2020 is Rp. 153,540,000; with an average income of Rp 5,118,000,-

3. Farm Income

Tomato farming income in Leuntolu Village is obtained from the difference between total revenue and total production costs. Tomato farming income is the result of calculating the total revenue minus the total cost. The total received amounted to Rp. 153,540,000 less the total cost of Rp. 73,170,963.31; then it will get a value of Rp. 80,022,237.00 with an average income per respondent of Rp. 2,667,408,00.in line with Fadli (2014) and Wangke (2015) research that tomato farming in paddy field after rice harvest is profitable.

4. Relative Profit (R / C Ratio) of Tomato Farming.

To calculate the relative profit, use the R / C Ratio formula (Saediman *et al.*, 2015) .

$$R/C = \frac{TR}{TC} = \frac{PxQ}{TFC+TVVC} = \frac{153,540,000}{73,170,963.31}$$

$$\frac{TR}{TC} = 2,09$$

$$\text{Profit} = 2.09 - 1$$

$$= 1.09$$

Relative profit is the division between total revenue and total cost in one tomato production.

R / C Ratio for tomato farming with total revenue of Rp. 153,540,000; divided by the total cost of Rp. 73,170,963.31; it will get a relative gain of 2.09. From the review above, the benefits obtained by tomato farmers in Leuntolu Village are 2.09 per planting season. So that the benefits obtained by tomato farmers are economically profitable because the value is > 1 and feasible to continue. This is in line with Tumoka (2013) and Luntungan (2015), which states that the amount of tomato production and price has a significant effect both partially and simultaneously on the income level of tomato farmers.

D. Conclusion

From the results of this study it can be seen that the total income of corn farmers in the village Based on the results of the above research, the authors conclude that the income of tomato farming in Leuntolu Village, Raimanuk District, Belu Regency includes several stages as follows:

1. Tomato farming income in Leuntolu Village, Raimanuk District, Belu Regency in 2018 is Rp. 80,022,237.00; per year with an average income of Rp. 2,667,408.00; per respondent.
2. The relative gain in Leuntolu Village is Rp. 2.09, so the tomato plantations in Leuntolu Village are profitable because the value is > 1.

E. References

- BPS. (2018). Kabupaten Belu dalam angka 2018. BPS. Atambua
- Fadli, S. (2014). Analisis Pendapatan dan Kelayakan Usahatani Tomat di Kelurahan Boyaoge Kecamatan Tatanga Kota Palu. *Agroland: Jurnal Ilmu-ilmu Pertanian*, 21(1).
- Luntungan, A. Y. (2019). Analisis Tingkat Pendapatan Usaha Tani Tomat Apel Di Kecamatan Tompasso Kabupaten Minahasa. *Jurnal Pembangunan Ekonomi dan Keuangan Daerah*, 17(1).
- Mubyarto. (1994). Jakarta: Pengantar Ekonomi Pertanian. Lembaga Penelitian, Pendidikan, dan Penerangan Ekonomi dan Sosial.
- Saediman, H., Amini, A., & Basiru, R. (2015). Profitability and value addition in cassava processing in Buton District of Southeast Sulawesi Province, Indonesia. *Journal of Sustainable Development*, 8(1), 226.
- Soekartawi. (1995). Analisis Usahatani. UI- Press. Jakarta.
- Soekartawi. (1995). Teori Ekonomi Produksi. PT. Raja Grafindo Presada. Jakarta
- Tumoka, N. (2013). Analisis Pendapatan Usaha Tani Tomat di Kecamatan Kawangkoan Barat Kabupaten Minahasa. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 1(3).
- Wangke, W. (2015). Analisis pendapatan Petani Tomat Pada Lahan Sawah di Desa Tosuraya Selatan Kecamatan Ratahan Kabupaten Minahasa Tenggara. *AGRI-SOSIOEKONOMI*, 11(1), 51-57.
- Wulandari, F., Saediman, S., & Zani, M. (2019). Analisis Pendapatan Usahatani Tomat Dikelurahan Kaisabu Baru Kecamatan Sorawolio Kota Baubau. *JIA (Jurnal Ilmiah Agribisnis): Jurnal Agribisnis dan Ilmu Sosial Ekonomi Pertanian*, 4(3), 61-65.