

The Tangerine Contribution (*Citrus reticulata*) Farming to Farmer's Household Income in Padang Pengrapat Village

Muhammad Ali Hasim Asyari¹, Arni Silvi Arrista²,
^{1,2}(Agribusiness Study Program, College of Agricultural Sciences (STIPER)
Muhammadiyah Tanah Grogot District Paser 2020)

Abstract :

*The Tangerine Contribution (*Citrus reticulata*) Farming to Farmers' Household Income in Padang Pengrapat Village. This study aims to find out: (1) How much is the income of Tangerine (*Citrus reticulata*) farming in Padang Pengrapat Village, Tanah Grogot District, Paser Regency, (2) How big is the contribution value of Tangerine (*Citrus reticulata*) farming to the household income of farmers in the village. Padang Pengrapat, Tanah Grogot District, Paser Regency.*

This Study was carried out in Padang Pengrapat Village, Tanah Grogot District, Paser Regency with a total of 48 farmers who cultivate tangerines, the respondent's sampling method used the Proportional Random Sampling method, which is a random sampling technique when conducting study, data collection techniques using the method of observation, interviews using questionnaires and documentation, while the data analysis techniques used were descriptive qualitative and quantitative/economic analysis

*Based on the results of the study, it can be concluded that : (1) The income of tangerine (*Citrus reticulata*) farming in Padang Pengrapat Village, Tanah Grogot District, Paser Regency is Rp. 30,168,229/year. (2) and the value of the contribution of tangerine (*Citrus reticulata*) farming to the household income of farmers in Padang Pengrapat Village is 37.23%*

Keywords: Contributions of tangerines, the income of farmer households

Date of Submission: 25-12-2021

Date of Acceptance: 06-01-2022

I. Introduction

1.1 Background of Study

Indonesia is an agricultural country where most of the population lives in rural areas with a livelihood as farmers. The agricultural sector has an important role in national development, among others, in achieving food self-sufficiency, expanding job opportunities in rural areas, as a source of foreign exchange originating from non-oil and gas commodities and increasing the income of farming communities. The agricultural sector has many benefits for the community and the state, in addition to the fact that the majority of Indonesian people work as farmers, agricultural commodities affect the nutritional status and health of the population, especially through the production of the food they consume. The food in question includes vegetables (from plants) and animals.

In other words, agricultural commodities are a source of food for humans that provide nutrients that are beneficial for human growth and health (Rachmawan, 2001). Imports of fresh citrus fruits that continue to increase, indicate that there are certain market segments (consumers) who want the type and quality of prime oranges that domestic producers have not been able to fulfill. With the increasing population, increasing income, and awareness of the nutritional needs of the community, the demand for citrus fruits which are rich in minerals and vitamins will continue to increase. In 2010, the need for citrus production is predicted at 2,355,550 tons and if the productivity is 17 - 20 tons per ha, then in that year a harvest area of approximately 127,327 ha is needed from the 70,000 ha of harvested area available in 2004. achieve the total production that has been set until 2010 is predicted to be at least 27,327 ha excluding plants that are not yet in production at that time. From this area, the need for disease-free citrus seedlings is estimated at 15,030,000 with a population of 500 seeds/ha. (Mubyarto, 1989).

The origin of the orange is from East Asia and Southeast Asia, forming an are that stretches from Japan to the south and then turns west towards eastern India. Sweet oranges and citrons (lemon) come from East Asia, while grapefruit, lime and kaffir lime come from Southeast Asia. Many members of the orange are used by humans as food, fragrance, and industry. Citrus fruits are a great source of Vitamin C and important fragrances. The leaves are also used as a spice. (Rukmana, 2005).

In East Kalimantan, tangerines come from Tanjung Labu Village, Rantau Pulung District, Eas Kutai Regency, Eas Kalimantan Province. Found in 2003 by the Monitoring Team for the Rantau Pulung Orange

Agribusiness Development Program initiated by the Community Development (Comdev) PT Kaltim Prima Coal (KPC) in collaboration with the Fruit Study Institute (Balitbu) Solok-West Sumatra, and the Orange Study Workshop (Lolit Jeruk) Tlekung-Malang. Unlike lowland tangerines in general, this tangerine is quite unique because the fruit is orange like a tangerine that grows in the highlands.

Paser Regency is one of the regencies/cities in East Kalimantan Province with its economic condition experiencing a fairly high negative growth with a percentage value of -4.79 percent in 2016 Economic growth is one of the benchmarks that can be used to increase development. an area of various kinds of economic sectors that indirectly describe the level of economic change. (BPS, 2017).

1.2 Formulation of the problem

Based on the background above, the formulation of the problem in this study is as follows :

- a. How much is the income of tangerine (*Citrus reticulata*) farming in Padang Pengrapat Village, Tanah Grogot District, Paser Regency?
- b. How big is the contribution of tangerine (*Citrus reticulata*) farming to the household income of farmers in Padang Pengrapat Village, Tanah Grogot District, Paser Regency?

1.3 Purpose of Study

The purpose of this study is to find out :

- a. To find out the amount of tangerine (*Citrus reticulata*) farming income in Padang Pengrapat Village, Tanah Grogot District, Paser Regency?
- b. To find out how much is the contribution of tangerine (*Citrus reticulata*) farming to the household income of farmers in Padang Pengrapat Village, Tanah Grogot District, Paser Regency?

II. Study Methods

2.1 Time and Location

The time of the study was carried out from December 2018 to May 2019 starting from observations, interviews to data collection. And the study location is in Padang Pengrapat Village, Tanah Grogot District, Paser Regency.

2.2 Type dan Source data

This study was conducted directly through observation, interviews, questionnaires and documentation. The data sources in this study used two types of data sources, namely primary data or data obtained directly from tangerine farmers and secondary data, namely supporting data obtained indirectly, through related institutions or agencies related to the object of study.

2.3 Sampling

The total population of Tangerine Farmers in Padang Pengrapat Village, Tanah Grogot District, is 241 people. So to take a sample from the population must be able to represent the population. According to Arikunto (2006), to determine the number of samples if the small sample is less than 100 all the population is taken. Furthermore, if the number of subjects is large, it can be taken between 10 - 15 % or 20 – 25 % depending on the ability of the studier in terms of time, energy and data. From the total population data, the studyers took a sample of 20% with the Proportional Random Sampling method (random), where each group was taken as 20% x 241 so that the number of respondents obtained was 48 farmers.

2.4 Data Analysis Techniques

Qualitative Descriptive Analysis

Qualitative descriptive analysis is a data analysis that aims to describe the object of study, namely :

- a. Overview of the study site
- b. Characteristics of Respondents
- c. driving factor
- d. Obstacle factor

Quantitative Analysis

a. Acceptance Analysis

To find out the amount of revenue obtained can be known by using the following formula :

$$TR = P \times Q$$

Information ;

TR = Total Revenue/Total Return (Rp)

P = Product Price (Rp)

Q = Capacity of product/Quantity (kg)

b. Cost Analysis

Total cost analysis is calculated by the following formula :

$$TC = TFC + TVC$$

Information :

TC = Total cost (Rp)

TFC = Total fixed cost (Rp)
 TVC = Total variable cost (Rp)

c. Income Analysis

Revenue is calculated by subtracting the total revenue from the total cost, with the following formula :

$$I = TR - TC$$

Information :

I = Income/Profit (Rp)
 TR = Total Revenue/Total Return (Rp)
 TC = Total cost (Rp)

d. Farmer Household Total Income Analysis

The total income of farmers' households is the entire income/income of farmers' households both from tangerine farming businesses and from non-tangerine farming products such as vegetable farmers, salak farmers, oil palm farmers, employees, construction workers, entrepreneurs, traders.

$$\text{Contribution (\%)} = \frac{\text{Tangerine Farming Income}}{\text{Total Farmer Household Income}} \times 100\%$$

III. Study Result

3.1. Tangerine Land Area

Tangerine citrus farming land in Padang Pengrapat Village ranges from 0.5 to 5 hectares by 48 farmers, with details of the land area as follows.

Table 1 Respondent's Land Area

No	Land area (Ha)	Number of Respondents (People)	Percentage (%)
1	0,5	3	6,25
2	0,75	1	2,08
3	1	31	64,58
4	1,5	2	4,16
5	1,75	3	6,25
6	2	7	14,58
7	5	1	2,08
Amount	12,5	48	100

Source : Data Primer Responden 2020

Based on Table 1 above, the total area of tangerine farming land in Padang Pengrapat Village is 12.5 Ha. With the land area of each respondent the most is a land area of 1 Ha with a total of 31 respondents.

3.2. Production Cost of Tangerine Farming

The production costs of citrus farming are costs incurred when the implementation of citrus farming is carried out, the following can be seen the production costs by each respondent which are summarized in the following table.

Table 2. Tangerine Business Production Costs All Respondents/Farmers

Production Cost (Rp)	Amount (People)	Percentage (%)
1.000.000 – 1.500.000	7	14,58
>1.500.000 – 2.000.000	14	29,16
>2.000.000 – 2.500.000	11	22,92
>2.500.000 – 3.000.000	10	20,83
>3.000.000 - 3.500.000	4	8,33
>3.500.000 - 4.000.000	1	2,08
>4.000.000	1	2,08
Amount	48	100

Source : Data Primer Responden 2020

3.3. Tangerine Farming Income / year

Agricultural income referred to in this study is the income received by respondents from agriculture for one year in rupiah. Agricultural income for one year is calculated by looking for agricultural income per year which is calculated based on total revenue for a year minus total production costs.

Table 3. Tangerine Farming Income/year

Tangerine Farming Income (Rp)	Amount	Percentage (%)
10.000.000 - 20.000.000	6	12,5
>20.000.000- 30.000.000	31	64,58
>30.000.000 - 40.000.000	2	4,16
>40.000.000 - 50.000.000	3	6,25
>50.000.000 - 60.000.000	2	4,16
>60.000.000 - 70.000.000	3	6,25
>70.000.000.000	1	2,08
Amount	48	100

Source: Data Primer yang dioalah 2020

Based on Table 3. that the income of citrus farming in one year is 21,352,875 - 32,014,749 with 31 respondents or 64.58%.

3.4. Production Cost of Tangerine Farming

Contribution of Citrus Farming to Respondents' Total Household Income Contribution is a contribution given by someone in an effort to help the loss or lack of what is needed (T. Guritno, 2000). Broadly speaking, there are 3 sources of income for tangerine farmers in Padang Pengrapat Village, namely, tangerine farming, other farming businesses (vegetable farming, salak and oil palm) and non-agricultural income (traders, construction workers and employees). the large contribution obtained from these sources of income is as presented in Table 4.

Table 4. Sources of Income of Tangerine Farmers/year in Padang Pengrapat Village

Income Source	Income Contribution	
	Rp/year	Percentage (%)
Tangerine Farming	30,168,229	37.23
Farming Others	114,602,727	49.69
Non Farming	85,848,889	13.08
Total income	230,619,845	100

Source : Data Primer Responden 2020

Based on Table 4, it is known that the average total household income of tangerine farmer respondents in Padang Pengrapat Village is Rp. 230,619,845 with the largest contribution obtained from other farming (Oil palm, salak and vegetable farming) with a total of 49.69% while farming tangerines contributed 37.23% (Rp 30,168,229) to farmers' income.

3.5. Pushing Factors and Inhibiting Factors In Tangerine Cultivation

Based on the results of study in Padang Pengrapat Village, Tanah Grogot District, Paser Regency, it can be seen that the driving factors and inhibiting factors in tangerine farming on farmers' household income are as follows;

Driving Factor

1. Increase farmers' income
2. Citrus plant care is easier

Inhibitory factors/obstacles

1. Lack of working capital
2. The number of pest and disease attacks
3. Limited knowledge of farmers in developing their farming
4. Direct access to market products is relatively difficult

IV. Discussion

4.1. Amount of Tangerine (*Citrus reticulata*) Farming Income in Padang Pengrapat Village, Tanah Grogot District, Paser Regency.

Based on the results of the study in this discussion, It will be described to answer the existing problem formulation and prove that the average annual income of tangerine farmers is Rp. 30,168,229,-/farmer/year, meaning that the farmer's income per year is Rp. 30,168. 229,- /farmer /year divided by 12 months so the sum or value obtained is Rp. 2,514,019, - /farmer for the 2019 Paser Regency UMK itself is Rp. 2,787,920/month, - so when compared with the income of ushatani Tangerines as a source of farmers' income will be able to increase farmers' income which is quite large.

Maximizing income can be done by minimizing costs incurred by farmers, understanding good care and planting methods so that farmers can be more efficient and effective in reducing production costs.

The use of tools used in tangerine farming is also very important, such as sickles, hoes and spray machines, because these equipment can make it easier for farmers to carry out maintenance. The use of labor and tools used effectively and efficiently can minimize production costs and maximize production results.

4.2. Contribution of Tangerine (*Citrus reticulata*) Farming to Farmer Household Income in Padang Pengrapat Village, Tanah Grogot District, Paser Regency

From the study results, it is known that citrus farming has a contribution of 37.23% to household income in Padang Pengrapat Village, Tanah Grogot District, Paser Regency. These results are obtained from the income from the tangerine farming business divided by the total household income of the farmers multiplied by one hundred percent.

The citrus harvest that will be sold by farmers in Padang Pengrapat Village is packaged in baskets and bought by middlemen/collectors and then sold to the market.

Although tangerine farming is an annual business, it is a promising business to maintain the survival of farmers. This can be seen from the amount of contribution given, which is 37.23%.

V. Conclusions And Suggestions

5.1. Conclusion

Based on the results of the study it can be concluded as follows :

1. The average income of tangerine farmers in Padang Village is Rp 30,168,229/year.
2. The contribution of tangerine farming to the total household income of farmers in padang pengrapat village is 37.23% of the total income is Rp 230,619,845

5.2. Suggestions

In connection with the conclusions above, the following suggestions can be developed:

1. For the government, there is a need for counseling in the maintenance and eradication of pests and diseases on citrus plants. So that knowledge about citrus farming can be applied directly by farmers.
2. For citrus farmers, it is necessary to learn about the cultivation of citrus plants and keep abreast of technological developments used in the development of citrus farming as well as intensive care of citrus plants to deal with uncertain weather.
3. For the government or farmers, it is better to establish KUD (Village Unit Cooperatives) to help farmers borrow capital for business so that farmers do not complain about funds to buy medicines.
4. For farmers, they should sell their products directly to the market so that the amount of production they get is increased.

Bibliografi

- [1]. Arikunto, 2006. *Prosedur Penelitian (Suatu Pendekatan Praktik)*. Jakarta : Rineka cipta
- [2]. Badan Pusat Statistik. 2017. *Kabupaten Paser dalam angka 2017*. BPS Kabupaten Paser.
- [3]. Badan Penyuluhan Pertanian. 2017. *Kabupaten Paser dalam angka*. BPP Kabupaten Paser.
- [4]. Rahmat Rukmana (2005). *JERUK BESAR, Potensi dan Prospeknya*. Yogyakarta: Kanisius. ISBN 979-21-0435-6.
- [5]. Mubyarto, 1989. *Pengantar Ekonomi Pertanian*. LP3ES. Jakarta.
- [6]. Rachmawan. 2001. *Komoditas Pertanian Sebagai Sumber Gizi*. Modul dasar bidang keahlian. Departemen Pendidikan Nasional, Proyek Pengembangan Sistem dan Standar Pengelolaan SMK, Direktorat Pendidikan Menengah Kejuruan. Jakarta.
- [7]. T. Guritno. 2000. *Kontribus, has been accessed on April 15, 2019 in : http://www.statusindonesiastudent.com*

Muhammad Ali Hasim Asyari, et. al. "The Tangerine Contribution (*Citrus reticulata*) Farming to Farmer's Household Income in Padang Pengrapat Village." *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)*, 15(01), 2022, pp. 34-38.