

Farming Analysis of Orange Fruit (*Citrus suhuensis*) and Dragon Fruit (*Hylocereus undatus*) in Banyuwangi Southern

by Syamsul Hadi

Submission date: 08-May-2019 09:44PM (UTC+0700)

Submission ID: 1127074102

File name: 15_PROSIDING_SEMNAS-Syamsul_Unmuh_Jember_khusus_reduce.pdf (424.87K)

Word count: 5261

Character count: 26396

Farming Analysis of Orange Fruit (*Citrus suhuensis*) and Dragon Fruit (*Hylocereus undatus*) in Banyuwangi Southern

Syamsul Hadi*

*) Lecturer of Agribusiness Studies Program, Faculty of Agriculture, UM Jember
Email: syamsul.hadi@unmuhjember.ac.id

ABSTRACT

Orange Fruit and Dragon Fruit is two horticultural commodities that are part of the flagship product Banyuwangi other than fruit durian, melon and watermelon. Produktivi-bag but still needs to be improved because of the market demand for the two commodities are very high, especially for large cities such as Jakarta, Bandung, Semarang, Solo, Surabaya, Bali and Borneo in addition to the demand of several districts in East Java. Therefore, the purpose of this research is 1) Determine the level of production, productivity, and profits oranges and dragon fruit farm, and 2) determine the level of cost efficiency for the feasibility of oranges and dragon fruit farm. This study was conducted in 2016 - 2017 in seven of the districts in the southern part Banyuwangi using quantitative descriptive method through technical survey techniques and data collection by way of interviews with farmers dept Orange fruit and dragon fruit. The study concluded that 1) Average tangerine farm productivity reached 16,91 tons per hectare, average production cost of IDR 36,276,208,19 per hectare, and the average profit of IDR 86,290,987,57 per hectare. Furthermore, the average productivity of 28,73 tonnes of dragon fruit cultivation, the average production cost of IDR 45,310,321.84 per hectare, and the average profits of IDR 141,447,070.19 per hectare, 2) average farm efficiency (R / C ratio) is high, at 3.75, but the dragon fruit farming (4.12) is more efficient than the tangerine farming (3.38). Statistically both farm production cost efficiency levels in the study area are significantly different at the 95% confidence level.

Keywords: farming productivity, Orange, dragon, profit and cost efficiency

INTRODUCTION

Farming of sweet citrus fruit and dragon fruit in Banyuwangi southern part is still quite long about the last nine years, and its development is very rapid, but commodity farmers cultivated citrus longer than commodity dragon fruit. However, the technology used in the dragon fruit farming is relatively more developed and sophisticated than the sweet orange fruit farming. Another phenomenon that developed in the southern area of Banyuwangi are farmers who have limited wetland or upland farming systems of multiple cropping implement bi commodities, namely plant dragon fruit or sweet orange as a staple crop, and soybean into crop sidelines. Moreover, most farmers cultivate the land (especially relatively wide) with monoculture farming system, the sweet orange fruit alone or dragon fruit alone especially in their yards working on the house.

Some varieties of dragon fruit is cultivated in general is dragon fruit varieties of white and red, while the sweet orange fruit varieties that are cultivated only Semboro.

The selling price of red fruit products is more expensive than white ones with the amount of demand are relatively balanced. Except in uasahatani sweet oranges, dragon fruit most farmers still use farming techniques and equipment are simple (except for the way technology) as well as the marketing system is still limited, affecting the production and farming profits. Nevertheless, a fraction of dragon fruit growers and comprehensive medium-scale enterprises, technology (materials and equipment) used relatively modern because of the capital owned by a very adequate with a wide range of marketing. On the other hand, almost all the fruit growers of sweet orange in this area using the technology is relatively balanced, so that the variable inputs and fixed, level of education and knowledge about cultivation techniques commodity endeavored, motivation and management of farmers as well as external factors that affect the level of production and profits.

Meanwhile, another factor that affects the level of production and profits of farmers is marketing. Marketing channels awakened and efficiently will largely determine the level of production and quality dragon fruit is produced, due to the efficient marketing channel will generate an appropriate price at both the farmers and consumers. This condition will be able to encourage farmers to be more passionate and motivated in managing farming of sweet citrus fruit and dragon fruit. Marketing margins with a high degree benefit ratio and cost disproportionate where farmgate prices were relatively low, spurring farmers to manage their farming less intensively. The increase in the number of deals done manufacturers associated with increased consumer demand for citrus fruit itself. In addition to the demands of the market demand, the advantage for producers is crucial passion in working to further improve its offer to oranges. The length of the marketing chain from farmers in the production centers are distributed to the district of Banyuwangi at the local level up to the outside areas such as Jember, Situbondo, Bondowoso and Lumajang and Probolinggo up outside Java, have implications for the pattern of channels and margins as well as the efficiency of marketing less profitable for all parties involved, including for the end consumer who will accept the burden of high prices.

The selling price of sweet citrus fruit variety 'Siam Pontianak' at farm level ranged between IDR 6,000, - s.d. IDR 8.500, - per kg, while the dragon fruit ranges between IDR 3,000, - s.d. IDR 4.000, - per kg previously reached on it (Apriadi, 2008). However,

prices at the consumer level is quite varied depending on the distance marketing of the production center. The average price of sweet oranges and dragon fruit at the consumer level (retailers) respectively is IDR 17,500, - per kg and IDR 13,000, - per kg. These conditions indicate the marketing process unfair for economic players for the commodity in question. There is a marketing agency of disadvantaged and there is a marketing agency that gain in the fairness of the (irrational). As the one hand, farmers are very disadvantaged because production costs have to be sacrificed per unit of output is not proportional to the benefits received. On the other hand, the end consumer will have to pay the entire costs of production and marketing processes with a high price.

Meanwhile, according to data from the Department of Agriculture, Plantation and Forestry Banyuwangi (2015) that the commodity has been featured orange is the type of Orange. Orange has a sweet taste with a bit of a combination of acid, thus providing a fresh taste sensation that is not owned by others such as citrus orange flavor import that is only dominated by sweetness. Local citrus Banyuwangi has a water content that is relatively more than other citrus fruits, such as oranges or grapefruit ponkam imports. Local citrus prices Banyuwangi is much more affordable compared to citrus imports range from IDR 10,000, - - IDR 14,000 per kg, while the price of citrus imports reached IDR 20.000, - to IDR 25 .000 per kg. Based on the above, the objectives of this study were 1) to find out the level of production, productivity, and profitability of farming of citrus fruits and dragon in Banyuwangi the south, and 2) determine the level of cost efficiency for the feasibility of farming oranges and dragon in Banyuwangi southern ,

RESEARCH METHODS

Type and Methods and Techniques Sampling

This research is a descriptive study, the research aims to describe the phenomenon systematically, factual and accurate information on the facts, properties and relationships between phenomena that occur in the present. Meanwhile, the method used in this study is a survey method. Sampling was done by multi-stage cluster sampling, where a representative sample of the population is taken randomly by using the formula Slovin (Husein Umar, 2010). The data collection techniques done by interviews with respondents through depth interview technique.

Research sites

This research has been conducted in the District Purwoharjo, Tegaldlimo, Pesanggaran, Siliragung, Cluring, Gambiran and District Tegalsari which became centers of production of citrus fruits and dragon in Banyuwangi. Determination of the location of this research was determined by purposive sampling on the consideration that some of the districts is the center of production of commodities to be studied broadly crop top five in the District. Furthermore, from the district of the samples was determined by purposive sampling sample village, the village with a population of oranges and dragon fruit farmers in the districts of most samples.

Observed Variables and Measurement

1. Farmers referred to in this research plan is a sweet citrus fruit growers and dragon fruit are in daerah sample (Banyuwangi south),
2. Cost efficiency is used to measure the level of economic feasibility by calculating the ratio of revenue cost,
3. The benefits of farming is variable to measure the success rate of farming that goes by calculating net farm income,
4. Productivity in question is the level of production of sweet citrus fruit and dragon fruit per hectare (tonnes / ha).

Data analysis

In order to determine the level of production, productivity, and profits oranges and dragon fruit farming in Banyuwangi the south, then the productivity of citrus fruit and dragon fruit can be calculated how much the average production per hectare produced in farm commodities. To measure the productivity of farm commodities in question, then use the approach Average Physical Product (APP) with the formulation as follows (Soekartawi, 2002):

$$APP = \frac{TPP}{X} = \frac{Q}{X} = \frac{f(X)}{X}$$

Where

APP = average production per unit of input

TPP = total production

Q = output or production generated

X = input used

In this study, we tested the productivity is the productivity of the land. Mathematically

formulated as follows: $APP = \frac{Q}{X}$

Where:

APP = land productivity

Q = output or production generated

X = land

Adapaun level of benefits received by farmers mathematically formulated as follows

(Soekartawi, 2002):

$$\pi = TR - TC, \text{ where } TR = P \cdot Q \text{ and } TC = TFC + TVC$$

Information :

π = Profit

TR = Total Revenue (Revenue Total)

TC = Total Cost (Total Cost)

P = Price (Unit Price Production)

Q = Quantity (Total Production Total)

TFC = Total Fixed Cost (Total Cost Fixed)

TVC = Total Variable Cost (Total Cost Variable)

Furthermore, to determine the level of cost efficiency for the feasibility of farming oranges and dragon in Banyuwangi south, then analyzed by Revenue Cost Ratio (R / C), which is the ratio between revenues and costs that can systematically be written as follows:

$$R/C = \frac{\text{Total Revenue (TR)}}{\text{Total Cost (TC)}}$$

Where :

R = TR = Revenue = P.Q

$TC = TFC + TVC$

FC = Fixed Cost (Fixed Cost)

VC = Variable Cost (Variable Cost)

Decision criteria are as follows:

If the $R / C = 1$ means that farming is not efficient nor suffered losses.

If the $R / C > 1$, then the farm is said to be efficient, and

If the $R / C < 1$, then farming is inefficient

Hereinafter to determine differences in the level of cost efficiency of both types of farming activities, then used different test analysis the average t-test with two independent samples and the sample size is different from the formulation of the following formulated:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{X_1X_2} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

where:

$$s_{X_1X_2} = \sqrt{\frac{(n_1 - 1)s_{X_1}^2 + (n_2 - 1)s_{X_2}^2}{n_1 + n_2 - 2}}$$

The hypothesis can be formulated as follows:

H₀: Average Average $X_1 \leq X_2$ or R / C ratio Orange farming lower than Dragon fruit

H_a: average $X_1 > X_2$ or an average of R / C ratio citrus farming is higher than fruit dragon

Therefore, criteria decision formulated as follows:

If $|t\text{-count}| \leq t_{(\alpha/2)(n-1)}$, then H₀ is accepted, and if $|t\text{-count}| > t_{(\alpha/2)(n-1)}$, then H₀ is rejected.

RESULTS AND DISCUSSION

Production and Advantages of Farm Orange and Dragon Fruit

Citrus farming is an economic activity that is very promising, including dragon fruit farm. This is in accordance with the opinion of Mardiasuti (2016) that the Orange into one main product Banyuwangi besides mangosteen, dragon fruit and durian fruit. Banyuwangi even become a supplier of the highest Orange largest in East Java. Each year, an average production of citrus fruits per season to 27 tons up 30 tonnes per hectare with total area of 12.804 hectares with 2-3 crops per year. Citrus fruit from Banyuwangi even been sent to the big cities such as Jakarta, Surabaya, Yogyakarta, Bali, Bandung, Semarang to the islands of Borneo.

The results of this study revealed that the productivity of citrus fruits in the study area reached 16,905.82 kg (16.9 tons) per season (Table 3.1). The magnitude of this means higher productivity than the average productivity of citrus in Banyuwangi overall, reaching only about 30 tonnes per hectare per year. Likewise tingkat profit per season per hectare (IDR 86,290,987.57) in the study area is more than the average in Banyuwangi which only reached IDR 75,000,000.00. This advantage is even much higher when compared with the results of research Wanda (2015) analysis of Orange farm income in the village of Padang Pangrapat Grogot Tanah Paser Regency of East Kalimantan on the same case, which only reached IDR 41,592,308.33 / hectare/year. The difference this far as a result of differences in soil texture and structure between the two sites were compared. In addition, the average age of the plant citrus in the area of research is the sixth year in which future productivity achieves maximum condition, while the average age of plant Orange peers about more than 7 years of age which is approximately unproductive. Learn more about the production and farming profits Orange presented in Table 3.1 below.

Table 3.1.
Event Production and Advantages of Farm Orange per hectare on Plant Age sixth
year in Banyuwangi South Section, Year 2017

No	Commentary	Amount (Unit)	Price/ Unit	Value (IDR)	percentage (%)
A	Production cost:				
I	Variable Cost:				
	a. Production facilities:				
	- Urea (quintal)	1,61	90.000	144.900	0,40
	- TSP (quintal)	1,00	304.300	304.300	0,84
	- ZA (quintal)	2,45	80.000	196.000	0,54
	- NPK/SP36/Ponska/ Biosem (quintal)	2,19	142.000	310.980	0,86
	- Abamektin & Diazinon (l)	1,00	127.000	127.000	0,35
	- Deltametrin (l)	1,02	70.000	71.400	0,20
	- Methomil & Methidathion (l)	0,88	60.000	52.800	0,15
	b. Wage Labor (ULC)	26,70	60.000	1.602.041	4,42
	Sub Total			2.809.420,82	7,74
2	Fixed Cost (lump sum):				
	a. Depreciation costs Tool	1	92.079	92.079,16	0,25
	b. Land rent	1	33.333.333	33.333.333,33	91,89
	c. Grup contribution	1	1.786	1,785,71	0,00
	d. dues irrigation	1	39.589	39.589,17	0,11
	Sub Total			33.466.787	92,26
	Total Cost			36.276.208,19	100,00
B	Productions (Kg)	16.905,82	7.250,00	122.567.195,77	
1	C Profits per hectare			86.290.987,57	

Source: Primary Data Processed in 2017

In Table 3.1 shows that the cost structure of the dominant citrus farm is used for the fixed costs, which reached 91.26% and the highest is for a rental fee of land (91.89%). The variable cost is allocated to the means of production of fertilizers and medicines around 3:28% and manpower 4:42%. The low variable costs incurred due to the use of peasant labor is relatively little for land preparation activities, manufacture of irrigation

channels, purchase of seeds and planting are not considered in the analysis of the farm because all costs are taken into account yaang in one season in the 6th year. Even the cost of labor to harvest and transport of all respondents do not need to pay for entirely borne by small traders or collectors. The low use of the means of production just as much as 1.61 quintals of urea and TSP as much as 1 quintals per hectare is the application of technology the use of fertilizers with low category. Because according to the recommendations Research Institute for Citrus and Subtropical Fruit - Balitbangtan - The Ministry of Agriculture (Balitjestro) in 2009 that the use of urea and TSP for Orange crop yields assuming 50 kg / tree are respectively 3.25 and 2.25 quintals quintals per hectare, assuming one hectare there is a population of 500 Orange trees. Therefore, it is natural that the total cost of the use of fertilizers and drugs only reached 3.28% and the cost of labor allocation of only 4.42% in the cost structure of farming.

Table 3.1 above when compared to the results of research Wanda (2015) analysis of Orange farm income in the village of Padang Pangrapat Grogot Tanah Paser Regency of East Kalimantan where the total cost of production per hectare was only IDR 17,732,691.67 which consist of the cost of seed, fertilizers, pesticides and fuel for watering respective amount of IDR 2,715,000.00, IDR 4,040,500.67, IDR 1,151,000.00 and IDR 98250.00. While the cost of labor utilization reached IDR 8,148,750.00 greater than is the case in this research area as calculated starting from land preparation, planting, to harvesting. Therefore, the total variable cost reaches IDR 16,153,500.00 per hectare, whereas that occurred in the study area labor costs only IDR 2,809,420.82.

On the other hand, the use of fixed Baiya research results Wanda (2015) was only IDR 1,579,191.67 and only one kind of kind of expenditure, namely the cost of depreciation of tools. While the fixed costs incurred by citrus growers in this research area in addition to the cost of depreciation of tools, are also taken into account spending on group dues, dues irrigation, land tax and land rent. So the total cost of production remained at IDR 33,466,787 or 92.36% in the cost structure. With the price of the average production reached IDR 7250.00 per kg with a range (IDR 4,500 - IDR 10,000 / kg) at the farm level and the average production reaching 16905.82 kg, the farmer's farm receipts gained as much as IDR 122,567,195.77 with total production cost farmers as much as IDR 36,276,208.19, the profit received by farmers farming reached IDR 86,290,987.57 per ha per season is higher than the profit / farm income jeruk conjoined

research results Wanda (2015) that only reached IDR 41,592,308.33. Furthermore, Table 4.4 reveals the level of production and profit dragon fruit farming in the area of research on the average age of the plant three years, where the average amount of production per hectare (productivity) reached 28,731.91 kg (28.73 tons) per season (per year) in below average Banyuwangi. Even if the dragon fruit farming is done intensively or optimal, it will generate a productivity of 50 tonnes per hectare per season (years) (Anonymous, 2015). Learn more about the cost of production and profit dragon fruit farming in the study area are presented in Table 3.2.

Table 3.2.
Event Production and Profits per hectare Dragon Fruit Farm in Plant Age Year
3rd in Banyuwangi South Section, Year 2017

No	Commentary	Amount (Unit)	Price/ Unit	Value (IDR)	percentage (%)
A	Production cost:				
1	Variable Cost:				
	a. Production facilities:				
	- Urea (quintal)	0,88	90.000,00	79.268,29	0,17
	- TSP (quintal)	0,07	38.750,00	2.717,23	0,01
	- ZA (quintal)	0,91	80.000,00	73.170,73	0,16
	- NPK/SP36/Ponska/ Biosem (quintal)	1,16	115.000,00	133.231,71	0,29
	- Benlate T20WP (l)	0,61	44.375,00	27.057,93	0,06
	- Basamid and Dolomite (l)	0,61	31.571,43	19.250,87	0,04
	- Kanon-Basudin 50EC (l)	0,61	36.250,00	22.103,66	0,05
	b. Wage Labor (ULC)	13,63	60.000,00	817.959,18	1,81
	<i>Sub Total</i>			1.174.759,60	2,59
2	Fixed Cost (lump sum):				
	a. Depreciation costs Tool	1	118.997,58	118.997,58	0,26
	b. Land rent	1	44.000.000,00	44.000.000,00	97,11
	c. Grup contribution	1	2.307,69	2.307,69	0,01
	d. dues irrigation	1	14.256,96	14.256,96	0,03
	<i>Sub Total</i>			44.135.562,24	97,41
	Total Cost			45.310.321,84	100,00
B	Productions (Kg)	28.731,91	6.500,00	186.757.392,03	
1 C	Profits per hectare			141.447.070,19	

Source: Primary Data Processed in 2017

Table 3.2 structure dragon fruit farm production costs in Banyuwangi southern part of the vast majority (97.41%) dominated the fixed costs without taking into account the cost of buying Ironwood / Pole climbing concrete and tires, and the remainder to the variable expenses (2.59%) , The low cost of this variable because the analysis is done on the average age of the plant in year 3, so the cost of land preparation, purchase of seeds,

cultivation, manufacture of irrigation channels and even harvest and transport are not taken into account in this analysis because in real terms there is no expenditure of farmers for activities such as direct harvested and transported by small traders or collectors. Spending only farmers do to the cost of production inputs such as fertilizers, pesticides and maintenance, therefore spending kerna wage is less than IDR 1.000.000, - In addition, low expenses resulting variable average farmer applying fertilizer use is still in production facilities under recommendation by (Anonymous, 2014). According to these recommendations the use of urea fertilizer / compost, NPK, ZK, Dolomite and TSP respectively of 0.5 kW, 2.5 kW, 1 kW, 1.5 kW and 1.25 kW per hectare per season. But the fact is the dragon fruit farmers in the study area using the production facilities each amsing as much as 8.88 kw, 1.16 kw, 0.91 kw, 0.61 kW and 0.07 kW.

The research result Rizal (2015) in the District Samboja Kertanegara Kutai in East Kalimantan on the same study in 2013 showed a different reality, which can be summarized as follows: fixed costs include land rental 5-year IDR 25 million, and the value of depreciation tool as much as IDR 7,700 000. Furthermore, the cost of production inputs (seed and fertilizer) reached IDR 192 million, and labor as much as IDR 13,000,000 (Tilth 50 ULC, ULC Planting 20, 20 ULC Watering, Fertilizing 20 ULC, ULC 10 weeding, harvesting and postharvest 10 ULC, with each ULC costs IDR 100,000), so the total cost of production reached IDR 237.7 million / hectare. The harvest of farm incomes to-1 by the number 10 seed production trees x 6.400 x 0.5 kg is 32,000 kg at a price of IDR 25,000 per kg, the total revenue of IDR 800 million. Furthermore, with an average total cost of production as much as IDR 237.7 million, the profit dragon fruit farmers as much as IDR 562 300 000, - per hectare per year. Meanwhile Based on the observations of the research that has been done before, dragon fruit farming is carried out by PT. KSE till the 4th year gain in net profit. 335,995,581.84 / ha / year (Gusti, 2011).

Efficiency Level Event Production Costs Farming Orange and Dragon Fruit

Analysis of Revenue Cost Ratio (R / C ratio) is an analytical tool to see the relative advantages of a business within one year of the costs used in such activities or better known as the cost-efficiency analysis to determine the feasibility of a productive economic activities. To answer the first hypothesis about the allegations about whether the use efficiency of the production costs for citrus farming and dragon fruit in the study area, then analyzed using financial analysis tools. Table 3.3 is the result of financial analysis have also been answered hypothesis first found use in production costs in farming activities Orange and running efficiently dragon fruit is "proven". This is supported by the results of the analysis of R / C ratio both farming activity referred to by the two reached an average of 3.75, but the dragon fruit farming activities (4.12) is more efficient than citrus farming activities (3.38). The big difference this level of efficiency due to the age factor of plants, physiological, order plants, applied technology, and price per unit is different.

Table 3.3.
Farming Cost Analysis Results financially Orange Siamese and Dragon Fruit in Banyuwangi South Section, Year 2017

No	Type Farming	Revenue (IDR)	Productions Cost (IDR)	R/C Ratio
1	Orange fruit	122,567,195.77	36,276,208.19	3.38
2	Dragon fruit	186,757,392.03	45,310,321.84	4.12
3	Average	154,662,293.90	40,793,265.02	3.75

Source: Primary Data Processed in 2017

Table 3.3 above shows that if the average farmer Orange and dragon fruit production cost as much as IDR 1., - Will provide a level of acceptance as much as IDR3.75 per kg. How big is the difference in the efficiency of the two types of farming referred to different test results can be seen in the average t-test are presented in Table 3.4 below.

Table 3.4.
Analysis of different test results average between the amount of Farm Production Costs Orange and Dragon Fruit in Banyuwangi South Section, Year 2017

Pair	R/C_Jeruk - R/C_Naga	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
1		- .87300	1.10687	.35002	-1.66481	-.08119	-2.494	9	.034

Source: Primary Data Processed in 2017

Table 3.4 provides an overview of that at the 95% confidence level turned out to be two types of farming that have different levels of efficiency of production costs significantly different. This means dragon fruit farms have a higher degree of efficiency than the citrus farming in the study area. When compared with the results of Nurasa and Hidayat (2005) in the Karo district of North Sumatra that citrus farming efficiency in the area of research is still higher than in Karo which only reached 2.97. Furthermore, when compared with the results of citrus research in Paser Regency of East Kalimantan in 2014 by Wanda ie by 3,35, then the level of efficiency in the study area are relatively the same or slightly higher at 3.38.

Similarly, levels of farm efficiency dragon fruit when compared with the results of Rizal (2015), and God (2011), then the farm efficiency of dragon fruits in the study area is much higher, because each of the two previous studies revealed that the level of efficiency of dragon fruit only reached 1,42 and 1,34. Furthermore, the results of research Soelistyari et al. (2002) showed economically cultivation of dragon fruit is very worth it, because at the end of the fourth year, capital investment has been returned and earned a profit of IDR 32,000,000.00. In the fifth year onwards results obtained around IDR. 150,000,000 year with a maintenance cost. IDR 40,000,000/year. Based on the research results Santoso (2013) analysis of dragon fruit farming in the yard for 7 years to produce a profit of IDR 96,805,000. or the ratio B/C of 2,76.

CONCLUSION

1. Productivity citrus farming in Banyuwangi southern part of the average reached 16,91 tons per hectare requires an average production cost of IDR 36,276,208.19 per hectare and the average farm gate price IDR 7250.00 per kg , then the average farm receipts of IDR 122,567,195.77 per hectare and the average profit reached IDR 86,290,987.57 per hectare. Furthermore, the average farm productivity dragon fruit reached 28.73 tons, the average farm production costs IDR 45,310,321.84 per hectare with an average price of products at the farmer level IDR 6.500, - per kg, then the average farm receipts dragon fruit IDR 186,757,392.03 per hectare, then the level of profits reached IDR 141,447,070.19 per hectare.
2. Activities citrus farming and dragon fruit in the study area average has a high level of cost efficiency, which both reached 3,75, but the dragon fruit farming activities (= 4,12) more efficient than citrus farming (3,38) , Test results average difference t-test showed that statistically the second level of cost efficiency of farm production in the study area are significantly different (significant) at the 95% confidence level.

THANK-YOU NOTE

The author would like to thank the infinite to the Institute of Research and Community Service - UM Jember which has supported the study of a wide range of contributions, so that the research can be done well and produces an output in the form of scientific articles that are already published.

BIBLIOGRAPHY

- Anonymous, 2009. Fertilization Recommendation for Citrus. Research Institute for Citrus and Subtropical Fruit - Balitbangtan - The Ministry of Agriculture (Balitjestro). [https:// Balitjestro.litbang.pertanian.go.id](https://Balitjestro.litbang.pertanian.go.id). Accessed on 10 February 2017.
- Anonymous, 2014. How Dragon Fruit cultivation in gardens and pots (Complete). <http://alamtani.com/budidaya-buah-naga.html>. Accessed on February 15, 2017.
- Anonymous, 2015. Department of Agriculture, Forestry and Plantation Banyuwangi. Jaringnews.com and Tempo.com.
- Apriadi, 2008. Profile Orange Sambas / Pontianak 2008. [http:// Apriadi-apriadisalsabil.blogspot.co.id / 2008/11 / orange-siam-sambaspontianak.html](http://Apriadi-apriadisalsabil.blogspot.co.id/2008/11/orange-siam-sambaspontianak.html). Accessed on February 3, 2017.
- Gusti, R.Y., 2011. Analysis of farming Meats Super Red Dragon Fruit (*Hylocereus costaricensis*) until the 4th year in the district of Padang Pariaman. Tesis. Andalas University, Padang. Accessed on February 3, 2017.
- Mardiastuti, A., 2016. Citrus Fruits Commodity Mainstay So Banyuwangi. www.detik.finance.com. Accessed on December 15, 2016.
- Nurasa, T. and Hidayat, D., 2005. Analysis of Performance of Citrus Marketing Margin in Karo. *Socio-Economic Journal of Agriculture and Agribusiness*. 8 (1): 25-36.
- Rizal, M., 2015. Prospek pengembangan dragon fruit (*Hylocereus costaricensis*) in Kutai regency, East Kalimantan. *Proceedings of the National Seminar MASY- BIODIV INDON*. 1 (4): 224-234.
- Soekartawi, 2002. *Agribusiness Theory and Application*. Jakarta: PT. King Grafindo Persada.
- Wanda, F, F, A., 2015 Orange Farming Income Analysis (Case Study In the village of Padang Pangrapat Grogot Tanah Paser). *E-journal.adbisnis*. 3 (3): 300-311.

Farming Analysis of Orange Fruit (*Citrus suhuensis*) and Dragon Fruit (*Hylocereus undatus*) in Banyuwangi Southern

ORIGINALITY REPORT

5%

SIMILARITY INDEX

%

INTERNET SOURCES

%

PUBLICATIONS

5%

STUDENT PAPERS

PRIMARY SOURCES

1

Submitted to Universitas Muhammadiyah
Ponorogo

Student Paper

2%

2

Submitted to Universitas Jenderal Soedirman

Student Paper

1%

3

Submitted to Southern New Hampshire
University - Continuing Education

Student Paper

<1%

4

Submitted to Pascasarjana Universitas Negeri
Malang

Student Paper

<1%

5

Submitted to Columbia Southern University

Student Paper

<1%

6

Submitted to Colegio Lamatepec

Student Paper

<1%

Exclude bibliography On