AGRISOCIONOMICS
Jurnal Sosial Ekonomi dan Kebijakan Pertanian
ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

COMPARATIVE STUDY OF RICE FARMING INCOME WITH THE APPLICATION OF DIRECT SEED PLANTING SYSTEM (TABELA) AND TRANSPLANTING (TAPIN)

Fatimah Tuz Zahroh*, Ugik Romadi, and Suhirmanto
Polytechnic of Agricultural Development Malang, Malang, East Java, Indonesia

*Correspondence Email: fatimahtuzzahroh1@gmail.com

Submitted 27 July 2023; Approved 06 October 2023

ABSTRACT

Over time, the consumption of rice as a food commodity has always increased along with the increase in population. In cultivating rice plants, of course it requires a lot of labor, especially in planting activities. However, the availability of agricultural labor is currently decreasing and the cost is expensive. One technology that can be a solution to this problem is the direct seed planting system (tabela). This study aims to compare farmers' income with the implementation of the two planting systems. Differences in planting systems will affect production costs, so it will also affect farm income. The data analysis used was farm business analysis and independent sample t-test. The results of the analysis found a significant difference between the average income of farmers with tabela and tapin systems. The average income of tabela farmers was Rp 31,373,962/ha/planting season and tapin farmers was Rp 27,267,175 with a difference in income of Rp 4,106,787/ha/planting season.

Keywords: *comparison, income, planting direct seeds, transplanting*

BACKGROUND

Food crops are one of the commodities that are often grown by the Indonesian people. One of the most commonly grown food crops is rice. Food crops, especially rice, remain a top priority in agricultural development. Rice is a very important commodity because the staple food of the Indonesian people is rice. Over time, the consumption of rice as a food commodity always increases in line with the growing population. Indonesia's large population requires a large amount of food availability, which of course will require great efforts and resources to fulfill it (Kurniawan, 2004). According to the latest data from the Central Statistics Agency (BPS), the population in Indonesia has now reached 278.69 million by mid-2023. Based on BPS data (2022), the rice harvest area in East Java province is lower than in 2021, namely 1.70 million hectares (ha) or has decreased by 42.72 thousand ha (1.24%) compared to the 2021 rice harvest area of 1.75 million ha. Efforts to fulfill food availability can be done through intensification with improved rice cultivation technology. One of the intensification programs is the use of farming cultivation systems by applying the right cropping system (Ahmadia, 2022).

The rice paddy planting system that is currently widely used by farmers in Indonesia is the transplanting system. In the transplanting system, first do the nursery. In the transplanting system, rice seeds are sown first in a separate area commonly called a nursery for 20-25 days. After the seeds are ready to be moved, the seeds are planted by moving from the nursery bed to the rice field (Sandaurung, 2016). Planting rice by means of the tapin system has many advantages, for example, the root system of the plant is stronger, so the plant does not easily collapse. One of the rice-

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

producing areas in East Java Province is Jombang Regency. Jogoroto sub-district is one of the potential areas for the development of paddy rice commodities. In 2020, the productivity level of paddy rice commodity in Jogoroto District was 69 kw/ha with a production of 13,500 tons and a harvest area of 1,957 ha (Programa Jogoroto District, 2021). According to information obtained from the Head of the Farmer Group, the constraints experienced by farmers are that labor is increasingly scarce and wages are expensive. This has led some farmers in Alang-Alang Caruban Village to switch from the tapin system to the tabela system.

The tabela system is a way of cultivating rice by planting seeds directly without seedbeds and transferring seedlings to rice fields. The seeds used in the tabela system are germinated seeds. Tabela system rice planting can be done by using a direct seed planting tool (atabela) or by sowing seeds directly evenly in rows (Marlian and Supriadi, 2013). In the tabela system there is no seedbed making and transplanting so it requires less labor (Balitbang, 2015). From some of the advantages of the tabela system above, the tabela system also has weaknesses, among others, namely the increase in weed populations because at the time of planting the tabela system in rice fields in a state of randomness. In addition, because it is planted directly into the land in the form of seeds, the plants tend to fall easily. The thing that farmers are most worried about is the death of the plants at the time of planting, because rice is planted in the form of seeds so farmers assume there is no guarantee that the plants will grow. This causes the transition from the tapin system to the tabela system to proceed slowly.

The difference in planting systems will affect production costs, so it will also affect farm income. The majority of farmers do not know the effect of production costs on income in the use of the tabela and tapin systems. Farmers' income with the application of these two cropping systems needs to be compared with the hope that farmers can reduce the production costs of their farming business as an effort to increase income through the application of the right cropping system. Income analysis is not only about the calculation of income and expenses, but also includes the ratio between income and expenses. Farm income can also be used as an indicator of farmer welfare, the higher the net income received by farmers, the higher the level of economic welfare of farmers. Based on the description above, the purpose of this study is to determine the difference in income of tabela and tapin farmers in one planting period.

RESEARCH METHODS

The research was conducted in Alang-Alang Caruban Village, Jogoroto District, Jombang Regency in April-June 2023. The research location was determined purposively (purposive) with the consideration that in that area farmers cultivate rice plants using the tabela and tapin systems. The total population in this study were 130 tapin farmers and 15 tabela farmers. The sampling technique used is purposive sampling. So that the samples in this study were determined intentionally with some consideration. Considerations in the sample selection are: 1) Farmers who work for rice farming either with the implementation of direct seed planting systems or moving crops, 2) Land area ranges from 0.14-1 Ha, 3) Tabela farmers are farmers who do their farming business with direct seed planting tools, 4) Both tabela and tapin farmers in harvest activities use a combine 5) Both tabela and tapin farmers sell them in the form of Gabah Kering Harvest (GKP) and 6) have the same amount of rice cultivation land, which is 5 hectares of rice farming business with direct seed planting system and 5

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

hectares of rice farming system plant a move. So that the number of samples found in this study was 20 farmers, with the details of 10 tabela farmers and 10 tapin farmers.

The type of data used in this study is primary data obtained from respondents. Primary data in this study include a) Respondent identity, b) Land area, c) Land rental costs, d) Equipment used (type, quantity and purchase price), e) Cost of seeds, fertilizers and pesticides, f) Labor costs, g) Total grain production (GKP) and h) Selling price of GKP. Costs and income are converted in hectare units and calculated for one growing season. The collected data is then tabulated and analyzed by farming analysis as follows.

Farming Income Analysis

$$\boldsymbol{\pi = TR - TC}$$

Information:
π : Income (Rp)
TR : Total revenue (Rp)
TC : Total cost (Rp) (Soekartawi, 2002)

To find the total revenue value, the following formula is used.

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

Information:
TR : Total revenue (Rp)
P : Price (Rp/Kg)
Q : Quantity (Kg) (Soekartawi, 2002)

To find the total cost, the following formula is used.

$$\mathbf{TC = FC + VC}$$

Information:
TC : Total cost (Rp)
FC : Fixed cost (Rp)
VC : Variable cost (Rp) (Soekartawi, 2002).

R/C Ratio Analysis

$$\textbf{R/C Ratio} = \frac{TR}{TC}$$

The conditions that apply are:
R/C Ratio < 1 : Loss of farming
R/C Ratio = 1 : Break-even farming
R/C Ratio > 1 : Profit farming (Suratiyah, 2008)

Break Even Point Analysis (BEP)
BEP Unit

$$\textbf{BEP} = \frac{FC}{P-V}$$

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

Information:
FC : Fixed cost (Rp)
P : Selling price per unit (Rp)
VC : Variable cost per unit (Rp), Riyanto in Shinta (2011).

BEP Rupiah

$$\textbf{BEP} = \frac{FC}{1-\frac{VC}{P}}$$

Information:
FC : Fixed cost (Rp)
VC : Variable cost per unit (Rp)
P : Selling price per unit (Rp), Riyanto in Shinta (2011)

Comparative Analysis

To find out the differences in the income of respondents using the tabela and tapin system statistically, a comparative analysis of income with an unpaired t test was used.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Information:
X1 : Average income of rice farming with direct seed planting system (Rp/Ha)
X2 : Average income of farming with a transplanting system (Rp/Ha)
S_1^2 : Diversity of farming income with direct seed planting system (Rp/Ha)
$S2^2$: Diversity of farming income with shifting cropping system (Rp/Ha)
n1 : Number of farmers direct seed planting system farming
n2 : Number of farmers with the shifting cropping system

Then the basis for decision making is as follows:
1. If t count <t table, the decision is: Accept H0 and reject H1, meaning that there is no difference in average income in farming with the application of direct seed planting (tabela) and transplanting (tapin) systems.
2. If t count > t table then the decision: Reject H0 and accept H1 means that there is a difference in the average income of farming with the application of direct seed planting (tabela) and transplanting (tapin) systems.

RESULT AND DISCUSSION

Characteristics of Respondents

Respondent identity is something that is important in supporting farming activities. Overall, the age of the respondents was in the productive age category, namely at intervals of 48-59 years with a percentage of 40%, the level of education was high school graduates with a percentage of 60%,

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

farming experience of more than 30 years with a percentage of 40% and the area of land owned ranged from 0.14-1 ha.

Farming Business Analysis

Farming analysis is used to measure whether the farming activities carried out by respondent farmers are profitable or not.

Total Cost

The total cost is the overall expenditure cost used for the farming process. Total costs are the result of the sum of fixed costs and variable costs. Fixed costs consist of land rent and equipment depreciation. While variable costs consist of seeds, fertilizers, pesticides and labor costs.

Table 1. Total Cost of Respondent's Rice Farming/ ha/ planting season

	Tabela (Rp)	**Tapin (Rp)**
Fixed Cost	**7,606,048**	**7,599,825**
Land lease	7,481,934	7,481,934
Tool Shrinkage	124,114	117,891
Variable Cost	**12,492,770**	**16,026,400**
Seed	571,070	763,000
Fertilizer	1,655,100	1,931,000
Pesticide	528,800	531,600
Labor	9,737,800	12,800,800
Total Cost	**20,098,818**	**23,626,225**

Based on the table above, the total production cost of farming with tapin system is greater than farming with a tabela system. The difference between the production costs for tabela and tapin is Rp 3,527,407. One planting season of farming with the tapin system per hectare costs a total production cost of Rp 24,105,725, while the tabela system requires a total cost of Rp 20,098,818. The fixed cost for rice farming businesses with a tabela system is Rp 7,606,048 which consists of land rental fee Rp 7,481,934 and equipment shrinkage cost Rp 124,114. In rice farming businesses with a fixed-cost tapin system Rp 7,599,825 which consists of land rental fee of Rp 7,481,934 and equipment shrinkage cost Rp 117,891. Although the cultivated land is privately owned, the cost of renting the land remains calculated. The cost of renting land per hectare in the research area is Rp 7,481,934 per planting season. Meanwhile, the cost of shrinking tools is different because the number and type of tools used by farmers are different, apart from that, farmers with a tabela system use direct seed planting (atabela) in planting activities. Some of the tools calculated for the shrinkage cost were hoes, sickles, sprayers and atabela.

Variable costs are small costs influenced by production, for example costs for production facilities (Soekartawi, 1999). The variable costs of this study consisted of seed, fertilizer, pesticides and labor costs. The use of seeds in farming businesses with tabela system is 38 kg/planting season/Ha while the tapin system is 52 kg/planting season/Ha. Less use of seeds due to the use of atabela, in addition to flattening how plants grow can also save the use of seeds. This is in line with the results of a study by Rusimah, et al., (2018) under the title Comparative Study of Rice Sawah Business with Tapin System, Tabela and Tabela Minapadi in Jowahan Hamlet Sumberagung Moyudan Sleman that seeds used for 1,000 m2 require an average of 5.05 kg while Tabela system, 2.56.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

The type of seed used by both respondents of tabela and tapin farmers in this study was Inpari 32. Farmers choose to use the Inpari 32 variety because it has several advantages, including grain price attributes, productivity, pest and disease resistance, and ease of selling the grain (Purba et al., 2022). The cost of seeds in rice farming businesses with a tabela system is Rp 571,070 and the tapin system farm business Rp 763,000.

The types of fertilizer used by the majority of respondent farmers in this study were Urea and NPK. The fertilizer needs of farmers with a tabela system are urea 256 kg/ha and NPK 289 kg/ha, while the fertilizer needs for tapin farmers are urea 470 kg/ha and NPK 325 kg/ha. This is in line with Paembonan's (2018) study with the title Difference in the Production and Income of Padi Sawah Farmers Between Adopting Direct Seed Plant Technology and Moving Plant in Puuroda Village, Baula District, Kolaka Regency where respondents who applied Tapin technology used more fertilizer due to pest attacks. The difference in the amount of fertilizer use is also due to segregation in tapin systems that require fertilizer. Fertilizers also depend on soil conditions and farmers' habits. The cost of fertilizer in farm businesses with a tabela system is Rp 1,655,100 and tapin system amounting to Rp 1,931,000.

The use of pesticides in both the respondents of tabela farmers and tapins varies, in their use, in accordance with the problems that exist on the land of each farmer. The types of pesticides that are widely used by tabela farmers are herbicides with brands such as nominee and novect. In the tabela system, sufficient herbicide support is needed, especially for pre-growth to suppress the growth of grass so that it does not compete with the seeds already planted. This is in accordance with the opinion of the South Sulawesi Agricultural Technology Review Hall (2019), which said that one of the weaknesses of the tabela system is the rapid growth of weeds that can interfere with the growth of rice plants, so it needs to be anticipated with pre-growing or selective herbicides applications after growing. According to most of the respondent farmers, the obstacles to the tabela system are considerable grasses or weeds. In the process, one direction can also only be carried out, namely lengthwise. This is because in the tabela system the distance of the plant is in the lengthwise direction. So that, farmers prefer to control chemically with the help of herbicides.

In moving plant systems, the widely used use of pesticides is insecticide, as there was a pest attack at that time. Pest attacks are one of the factors that can trigger a decline in production rates, so pest attacks need to be controlled. Some insecticides used by tapin farmers to control pest attacks are plenum and flytop. Farmers still use herbicides but not as many as tabela farmers. There is no significant difference in pesticide costs incurred by tabela and tapin farmers. The cost of pesticides on farm businesses with a tabela system is Rp 528,800 and on tapin system amounting to Rp 531,600 with a difference of Rp 2,800.

Based on the results of interviews with farmers in the field, labor wages are paid per day and expenses. Labor wages paid per day are segregation, silencing, embezzlement, fertilization, and control of the OPT. Meanwhile, the labor wages paid by the borehole are land processing, waterworks, removal, planting, and harvesting. The wages of labourers and tapins are not much different, but the costs incurred in each farming process are different. The type of work and land area had an effect on the amount of labor.

The types of jobs calculated in respondents with a tabela system are land processing, waterworks, planting, sowing, sowing, sowing, OPT control and harvesting. Meanwhile, in the tapin system are land processing, waterworks, seeding, planting, silencing, fertilization, sowing, harvesting and OPT control and harvesting. The labor cost of farm businesses with a tabela system is Rp

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

9,737,800 and tapin system amounting to Rp13,709,000. This is in accordance with the opinion of the Agricultural Research and Development Agency (2015), which said that with the implementation of the tabela was able to reduce production costs because it did not require fertilization and moving crops.

In the cost of planting labor, there is the largest cost difference. The cost of planting labor in the tabela system is Rp 5,295,000, while in the tapin system Rp 8,800,000, so the cost difference of Rp 3,505,000. In addition to cheaper planting costs, respondent farmers of the tabela system think that planting is easier and more practical because it uses technology so that the planting distance is more regular that it can make it easier to weed out weeds or OPTs that can damage and slow crop growth.

One of the obstacles experienced by tabela farmers is the seeds that are threatened by being swept away by the water in the rice fields during the rainy season. This situation will lead to an increase in the cost of silencing labor. Dilution is done if a plant is damaged or a seed is washed away. Basically, this obstacle can be overcome by water regulation that is scrambling at the time of planting. So, it is hoped that when the seed rain does not drift away.

The difference in the amount of production costs is due to differences in the use of fertilizer and labor used, where respondents who applied tapin technology used more fertilizer due to pest attacks and more rental labor than respondent farmers who applied tabela technology. The results of a study by Siregar et al., (2015) found that the use of time and labor used by farmers in rice paddy farming is more efficient than farmers who implemented the tapin system, where in the tapin system the number of workers used is 38.59 HOK/Ha and in tapin systems the amount of power The work used was 64.05 HOK/Ha. Another opinion, according to Paembonan et al., (2018) that the use of labor per hectare in tapin technology is higher than tabela technology.

Farm Business Revenue

Farming revenue is the result of multiplying the amount of production with the selling price. In this study, the production was in the form of Harvested Dry Grain (GKP) with a selling price of Rp 5,900 per kg.

Table 2. Revenue of Respondent Farming Business/ha/planting season

	Tabela	**Tapin**
Production (kg)	8.724	8.626
Selling Price (Rp)	5.900	5.900
Revenue (Rp)	51.472.780	50.893.400

Based on the table 2, it is known that the income obtained by the respondent farmers who apply the tabela system is greater when compared to the acceptance of respondents who apply the tapin system. The difference in the amount of income received by farmers is caused by differences in the amount of production, where the amount of production obtained by respondent farmers who apply the tabela system is as much as 8,724 kg/ha while for respondent farmers who apply tapin technology only as much as 8,626 kg/ha. This is because in the seed tabela system, planting occurs at an early age, which is still in the form of seeds, so that it will affect the number of tillers obtained more than the tapin system.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

According to the Central Sulawesi Provincial Agriculture Office (2015), the planting system moved using the planting distance of 25 cm x 25 cm or 20 cm x 20 cm, the crop population produced by ±250,000 per hectare. Meanwhile, a 20 x 10 cm growing system can produce a plant population of ±330,000 a year. Research by Pandawani (2015) also found that the number of illustrated children in the real-life tabela system was higher than the number of children in the tapin system, which was 34.96 bars, or a real increase in the number of children in the tabela system compared to the tapin system.

The use of a tabela system uses a tabela so that the planting distance is more precise and orderly. This causes the production obtained by tabela farmers to be greater than 100 kg of dry grain per hectare when compared to the moving planting system. With regular planting distance it will reduce crop competition to obtain production factors with other crops. In addition, with the right planting distance and regularity, the Leav Area Index (LAI) is optimal because all leaf layers are perfect so that the photosynthesis process can proceed to the maximum. This is the situation that supports higher production in the rice cultivation system by directly sowing seeds without passing the harvest (Ardasanti, 2010).

The number of children produced by plants will affect the weight of the crop's dry grain. The tabela system provides 8,724 kg per hectare of dry grain from the dry grain of the harvest in the tapin system which is 8,626 kg per hectare. This result is obtained because in the tabela system the percentage of grain contains higher grain which will certainly provide higher yields. Containing grain is one of the indicators of productivity as more containing grain can be a criterion for good plant growth. Based on the table above, the size of the farm business revenue with the tabela system is Rp 51,472,780 and the tapin system is Rp 50,893,400. The difference in acceptance between the tabela and tapin system is Rp 579,380. The difference in revenue is influenced by the amount of production.

Farm Business Income

Income is the result of reducing revenue and total production costs. Soekartawi (2002), states that to calculate farm income can be done by calculating the difference between total revenue (TR) and total cost (TC).

Table 3. Respondent Farming Income/ha/planting season

	Revenue (Rp)	**Total Cost (Rp)**	**Income (Rp)**
Tabela	51,472,780	20,098,818	31,373,962
Tapin	50,893,400	23,626,225	27,267,175

Based on the table 3, farming income with the tabela system is greater than the tapin system. The tabela system income is Rp 31,373,962 while the tapin system is Rp 27,267,175. The difference between the tabela and tapin system income is Rp 4,106,787. This statement is supported by the results of research by Wosal, et al., (2020) that the income of lowland rice farming using the direct seed planting method is greater than the income of lowland rice farming using the transplanting method.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

R/C Ratio

Tapin system farming and tabela system is feasible or not to be developed, then it is measured using the analysis of R/C ratio which is the ratio between total revenue and total cost.

Table 4. R/C Ratio of Respondents/ ha/ planting season

	Tabela	**Tapin**
R/C Ratio	2.56	2.15

Based on the table 4, the value of the R/C ratio of farming with the application of tabela is 2.56. This shows that for every Rp1 issued by the respondent will receive Rp 2.56. Whereas in farming with the application of the tapin system the value of the R/C ratio is 2.15. This means that every Rp 1 issued by the respondent will receive Rp 2.15. Based on the results of the calculation of the R/C ratio above, the two farms, both with the application of the tabela and tapin systems, are declared feasible because the value of the R/C ratio is > 1. The results of this analysis are supported by a similar study by Siregar et al. (2015) which showed that the R/Cratio calculation of the implementation of the tapin system and the tabela system showed that the tabela system is more viable than the tapin system due to the higher R/Cratio of rice paddy farming of the tabela system.

***Break Even Point* (BEP)**

The break even point (BEP) is the point where the entrepreneur or producer experiences neither profit nor loss (Mamondol, 2016). In this study, the calculated BEP is the rupiah BEP and unit BEP in rice farming with the application of the tabela and tapin systems.

Table 5. Break Even Point (BEP) Respondents/ ha/ planting season

	BEP Unit (kg)	**BEP Rupiah (Rp)**
Tabela	3,407	2,304
Tapin	4,004	2,739

BEP unit is used to find out at what amount the sales obtained are the same as the costs incurred so that farmers do not profit and do not lose. Based on the table 5, the BEP value of the direct seed planting system unit is 3,407, this indicates that the farming business is in a break-even state if the production yield is 3,407 kg. The production results of farming with the tabela system is 8,724 kg, so farming has experienced profits. In farming with the tapin system, the BEP unit value is 4,004, which means that the farming business is in a break-even state if the production yield is 4,004 kg. The production yield with the tapin system is 8,626 kg, so farming has experienced profits.

Unlike the unit BEP, the rupiah BEP is used to find out at what price the sales obtained are the same as the amount of costs incurred so that farmers do not profit and do not lose. The results of calculating the rupiah BEP for respondents with the tabela system show the value of Rp 2,304, the prevailing price is Rp 5,900, so the farming business has experienced a profit. In the farming respondents with the tapin system, the results of the BEP rupiah calculation show a value of Rp 2,739, the prevailing price is Rp 5,900 then farming has experienced a profit.

Based on the above description, it can be concluded that farmers have benefited from farming, both tabela and tapin systems. However, it should be noted that both BEP units and BEP rupiah have a close relationship with income. According to Mamondol (2016), the higher the income level of respondents will be faster in reaching the break-even point. In this study, respondents with a tabela

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

system would reach the break-even point faster than respondents with a tapin system. The break-even point is the point where the manufacturer has neither profit nor loss, and after the break-even point the manufacturer has accumulated revenue. The sooner the producer reaches the break-even point, the accumulation of revenue over time will also get bigger (Swastika, 2004 in Mamondol, 2018).

Independent Sample t-Test

Based on the results of the unpaired t test, a significance value of 0.023 <0.05 was obtained at the 95% confidence level, so according to the basis for decision making in the independent sample t-test it can be concluded that H0 is rejected and H1 is accepted. This it can be concluded that there is a significant difference between the average income of rice farming with the tabela and tapin systems. This is supported by the results of research from Ahmadia, et al (2022) that the income of lowland rice farming in the tabela system is significantly different from the tapin system. The income of lowland rice farming with the tabela system is greater than that of the tapin system.

CONCLUSION AND SUGGESTION

Based on the results of research conducted in Alang-Alang Caruban Village regarding the comparative analysis of farming income between direct seed planting (tabela) and transplanting (tapin) systems, it can be seen that there is a significant difference between the average income of farmers with the tabela and tapin systems. The average income of tabela farmers is Rp 31,373,962 and tapin farmers are Rp 27,267,175 with a difference in income of Rp 4,106,787. Counseling is needed for farmers to manage farming regarding the use of costs and an efficient way of carrying out farming. In this case is the tabela system so that can be profitable.

REFERENCES

Badan Pusat Statistik. 2023. Jumlah Penduduk Pertengahan Tahun (Ribu Jiwa), 2021-2023. https://www.bps.go.id/indicator/12/1975/1/jumlah-penduduk-pertengahan-tahun.html

Ahmadia, A., Christoporus & Karlina M. T. 2022. Analisis Komparatif Pendapatan Usaha tani Padi Sawah Sistem Tabela dan Tapin di Desa Siwalempu Kecamatan Sojol Kabupaten Donggala. Jurnal Agrotekbis, 10(4): 485-491.

Antara, M. 2016. Analisis Komparatif Antara Pendapatan Usaha Tani Padi Sawah Sistem Tabela dengan Tapin di Desa Air Terang Kecamatan Tiloan Kabupaten Buol. Agroland: Jurnal Ilmu-Ilmu Pertanian, 23(2): 86-93.

Gunawan. 2022. Analisis Komparatif Pendapatan Usahatani Padi Sawah Sistem Tabela dan Tapin di Desa Bangkir Kecamatan Dampal Selatan Kabupaten Toli-Toli. Jurnal Agrotekbis, 10(4): 365 – 374.

Kurniawan, F. 2004. Budidaya Tanaman Sistem Tabela. Bogor: PT. Agrorekatama.

Laguna, M. 2019. Pendapatan Padi Sawah dengan Teknologi Tabela dan Tapin di Kelurahan Unaaha Kecamatan Unaaha Kabupaten Konawe. Jurnal Akrab Juara, 4(4): 203-216.

Ma'ruf, M. I., Citra, A. K., & Arief M. 2019. Analisis Pendapatan dan Kelayakan Usaha tani Padi di Kecamatan Pitu Riawa Kabupaten Sidrap. Jurnal Ekonomi Pertanian, 15(3): 193-204.

Mamondol. R. M. 2016. Analisis Kelayakan Ekonomi Usaha tani Padi Sawah di Kecamatan Pamona Puselemba. Jurnal Envira, 2(1): 1-10.

Mulia, S. 2019. Keragaan Teknologi Budidaya Padi Sistem Tanam Benih Langsung (Tabela) di Sulawesi Selatan. Balai Pengkajian Teknologi Pertanian (BPTP) Sulawesi Selatan.

ISSN 2580-0566; E-ISSN 2621-9778
http://ejournal2.undip.ac.id/index.php/agrisocionomics
Vol 8 (2): 446-456, June 2024

Nuryadi. 2017. Dasar-Dasar Statistik Penelitian. Universitas Mercu Buana Yogyakarta. Yogyakarta: Penerbit Sibuku Media.

Nuryanti, D. M. & Kasim, N. N. 2017. Analisis Pendapatan Usahatani Pola Rotasi Tanaman Padi-Jagung Manis di Desa Mulyasari Kecamatan Sukamaju. Journal Tabaro Agriculture Science, 1(2): 95-104.

Paembonan, F., Rianse, U., & Abdullah, W. G. 2018. Perbedaan Produksi dan Pendapatan Petani Padi Sawah Antara Yang Mengadopsi Teknologi Tanam Benih Langsung dan Tanam Pindah di Desa Puuroda Kecamatan Baula Kabupaten Kolaka. Buletin Penelitian Sosek, 20(1): 27-37.

Pitojo, S. 2006. Budidaya Padi Sawah Tabela. Jakarta: Penebar Swadaya.

Shinta, A. 2011. Ilmu Usaha Tani. Malang: Universitas Brawijaya Press.

Soekartawi. 2002. Ilmu Usaha tani dan Penelitian untuk Pengembangan Petani Kecil. Jakarta: Universitas Indonesia Press.

Soekartawi. 2016. Analisis Usaha tani. Jakarta: Universitas Indonesia Press.

Suratiyah, K. 2008. Ilmu Usaha Tani. Jakarta: Penebar Swadaya.

Wosal, R. J. 2020. Perbandingan Pendapatan Usaha Tani Padi Sawah antara Metode Tanam Pindah (Tapin) dan Tanam Benih Langsung (Tabela) di Desa Mekaruo Kecamatan Dumoga Barat Kabupaten Bolaang Mongondow. Agrisosioekonomi: Jurnal Transdisiplin Pertanian (Budidaya Tanaman, Perkebunan, Kehutanan, Peternakan, Perikanan), Sosial dan Ekonomi, 16(3): 57-64.