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Factors Affecting Lowland Rice Production In Lawada Jaya Village, Sawerigadi District, West Muna Regency

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Abstract

The purpose of this research is to find out the factors that influence the production of lowland rice farming in Lawada Jaya Village, Sawerigadi District, West Muna Regency. This research was conducted in Lawada Jaya Village, Sawerigadi District, West Muna Regency. Respondents were 26 people, which was done by simple random sampling method. Analysis of the data used is multiple linear regression analysis. Data analysis using Cobb-Douglas, then the equation is in the form of natural logarithms to facilitate multiple linear regression analysis using SPSS software. The results of this study indicate that the influential or significant production factors are land area and seeds. While the production factors that do not significantly affect the production of lowland rice are labor and fertilizers.

Keywords: Production factors, farming and lowland rice

INTRODUCTION

Southeast Sulawesi province is located in the southeastern peninsula of the island of Sulawesi. Geographically, it is located in the southern part of the equator, extending from north to south between 02 ^{0} 45'-06 ^{0} 15' south latitude and stretching from west to east between 120 ^{0} 45'-124 ^{0} 45' east longitude. The area of Southeast Sulawesi in the form of land is 38,067.7 km ^{2} . Southeast Sulawesi has two seasons, namely the dry season and the rainy season. Climatic conditions, temperature and humidity are very suitable for the needs of staple food crops (seeds, tubers and nuts) so that the community can cultivate it as a farm. Southeast Sulawesi is one of the rice-

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producing areas. Especially in Lawada Jaya Village, Sawerigadi District, West Muna Regency. Lowland rice is a food crop that is quite potential to be developed because it makes a major contribution to the welfare of the farming community. In addition, availability will increase community food security. Therefore, the need for lowland rice will continue to experience income every year. Reducing the risk of crop failure is becoming increasingly important with the current climate change, which can have a negative impact on agricultural production (Saediman *et al.,* 2020).

The food crop that is mostly cultivated by farmer households is rice as a rice producer. In Indonesia, rice is a very important commodity because rice is a staple food and a source of calories for most of the population and the situation of rice can indirectly affect other consumption materials. To provide an overview of efforts to increase rice production in Indonesia, the growth rate of rice production, as a staple food, initially increased to its highest level in the 1989-83 period, which in fact was able to bring it to the level of rice self-sufficiency in 1984 (Darwanto, 1998). However, after achieving self-sufficiency in food (rice) in 1984, it stagnated and on the other hand, food imports in that period also increased, such as net rice imports which increased from 12,808 tons in 1988 to 1,623,499 tons in 1996 (Darwanto). , 1998).

Lowland rice (rice) is the main food ingredient for Indonesian society which reaches 252.17 million people with a growth rate of 1.31% and the level of rice consumption reaches 132.98 kg/capita per year. With the increase in population every year, increasing rice production is currently a priority to overcome supply shortages. Rice production in 2018 increased by 6.64 % or reached production of 75.55 million tons. The increase in production was as a result of an increase in both harvested area and productivity, which was 3.71 % or reached an area of 14.31 million hectares, while productivity increased by 2.82% or reached a yield of 5.30 tons per hectare. This figure has exceeded the target set by the government of 73.44 million tons (BPS 2018).

There are two types of farming in developing countries, especially Indonesia , namely farming that is subsystem in nature by changing it through commercial farming. Commercial farming is characterized by the existence of a farm to seek profit or profit as much as possible. The level of farmer inequality is largely determined by the yields obtained. The amount of harvest is reflected in the amount of income received and most of this income is met for family consumption purposes, thus the level of family consumption needs being met is largely determined by the income it receives. Based on macroeconomic theory, farming in principle can be classified as the same as the form of

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the company, which generally requires capital, labor, technology, and wealth (Mosher, 1997).

The agricultural sector is one of the most important sectors in supporting the Indonesian economy. Until now, development priorities in Indonesia have been placed on economic development with an emphasis on the agricultural sector. Agricultural development is directed at increasing agricultural production to meet food needs and industrial needs in the country, increasing exports, increasing farmers' income, expanding job opportunities and encouraging equal distribution of business opportunities (Soekartawi, 2003).

The role of the agricultural sector is the main provider of community food needs and is a basic need of human rights. Thus, the agricultural sector is one of the most effective sectors for alleviating poverty, especially in rural areas through increasing wage incomes working in the agricultural sector. Regional economic capability in relation to regional competitiveness is that regional economic capacity must have *attractiveness* for economic actors who have been and will enter an area to create a multiflier *effect* for increasing regional competitiveness. The role of the agricultural sector in other sectors with the economy by using input output analysis tools has been done by several other researchers. (Sukanto, 2010) , with the title the role of the agricultural sector on the economy of Central Java (input output analysis approach).

Production in an economic sense has the meaning of all activities to add or increase the value of the use or utility (*utility*) of goods and services. The production process or better known as crop cultivation or agricultural commodities is a business process of growing crops/cultivation on land to produce fresh materials (*raw materials*). The fresh materials are used as raw materials to produce semi-finished materials (work-in- *process*) or *finished* products in agricultural industries or known as agro-industry (*agrifood industry*) (Rahim, 2007).

In general, the increase in the production of a lowland rice farming is an indicator of the success of the farming concerned, but the high production of a commodity obtained in the unit area of land, the use of fertilizers, the number of seeds or seeds, and the amount of pesticide use do not guarantee maximum production. The explanation above is that farmers in Lawada Jaya Village, Sawerigadi District, Muna Barat Regency have extensive agricultural land, but farmers still lack understanding in land use, pest control and lack of extension workers and assistance, so that the use of fertilizers and pesticides is not in accordance with the rules recommended by the government. government, only based on the experience gained by farmers during farming, resulting in the production

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results obtained by farmers in Lawada Jaya Village, Sawerigadi District, Regency decreased compared to farmers in other villages.

MATERIALS AND METHODS

This research was conducted in Lawada Jaya Village, Sawerigadi District, West Muna Regency. Determination of the location is carried out purposively with the consideration that Lawada Jaya Village is one of the villages in Sawerigadi District that produces lowland rice. Time of implementation This research was carried out during February-March 2022.The population in this study are farmers who do lowland rice farming in Lawada Jaya Village, Sawerigadi District, West Muna Regency, totaling 260 farmers. Determination of the sample was carried out by *simple random sampling* as much as 10% of the total farmers as many as 26 rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency (Rianse and Abdi, 2012).

RESULTS AND DISCUSSION

Respondents Overview

The general description of the respondents observed in this study included age, education level, number of family dependents and farming experience. To obtain a clear picture of the identity of the respondents under study, it is described based on the following sections :

Respondent's Age

Age is one of the factors that influence farmers in making decisions. Age is also very influential on the ability of farmers to form community social capital, so the age of young farmers tends to have a strong and dynamic nature in managing their farms so that they are able to work stronger than older farmers. Another tendency is that when it comes to new things or new innovations, older farmers are generally more cautious. Age based on labor in agriculture is 15-54 years categorized as productive age, while age 0-14 and age 55 and above are categorized as non-productive age (Soeharjo and Patong 1984). The age level referred to in this study describes the productive age of the respondents in describing their business. The condition of the age of rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency is shown in Table 1.

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Table 1. Classification of Population by Age of Respondents in Lawada Jaya Village, Sawerigadi District, West Muna Regency 2022.

No	Age Group (Years)	Respondent (person)	Percentage (%)
1	Productive (15-54)	19	80
2	Non-Earning (55-70)	7	20
	Total	26	100

Source: Research Primary Data, 2022

In Table 1 it can be seen that most of the rice farmers who were respondents in this study were of a productive age. Of the 26 respondents of lowland rice farmers in this study, 19 people with a percentage (80%) of them were of productive age, while the rest were 7 people with a percentage (20%) of non-productive age.

Level of education

Formal education is one aspect that determines a person's ability and way of thinking in managing his or her farm. The higher the formal education of the respondent, the wider his knowledge and insight and the more rational his way of thinking will be. In addition, education is also one of the factors that can determine and stimulate a person to be creative and innovative in solving any problems related to what he is trying to do so that it will accelerate the process of adopting information technology in an effort to develop the business he manages.

The education referred to in this study is the formal education that the respondent has attended by looking at the length of the year of education. Regarding the state of formal education that has been attended by respondents, it can be seen in Table 2.

Table 2. Qualifications of Respondents Based on the Last Education Level of Rice Farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency, 2022.

Education Level (Years)	Respondent (Person)	Percentage (%)
SD	18	63
JUNIOR HIGH SCHOOL	5	23

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SENIOR HIGH SCHOOL	3	14
	26	100

Source: Research Primary Data, 2022.

Data Table of 2 shows that the last education level of the respondents studied, the education of respondents who are rice farmers is dominated by elementary school graduates as many as 18 people (63%). While at the junior high school level as many as 5 people (23%) and high school less, namely 3 people (14%). Thus, the education level of respondents of paddy rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency is dominated by the basic education level and secondary education level as well as high school graduates are still few. However, this does not become an obstacle in carrying out every stage of the process in their farming, especially in lowland rice farming, because in addition to formal education, lowland rice farmers also receive non-formal education both from the agricultural extension service and from research and service institutions such as universities.

Number of Family Dependents

The number of dependents is a family member who lives in the same house where the necessities of life are in one management unit. The large number of family dependents greatly affects a person's motivation to work to earn a large income because the costs incurred are even greater. This is in accordance with the opinion expressed by Situngkir (2007), that the size of family responsibilities is a factor that affects the willingness to do work.to Soeharjo and Patong (1984), that the number of family members is about 1-4 which belongs to the small family group while family members 4 people are large families . on family income. More details about the condition of the respondents in lowland rice farming based on the number of dependents of the family can be seen in Table 3.

Table 3. Qualifications of Respondents Based on Number of Dependents of Rice Farmers' Families in Lawada Jaya Village, Sawerigadi District, West Muna Regency in 2022.

The number of dependents family (Person)	Respondent (Person)	Percentage (%)

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1-4 (Small)	20	80
4 (Medium)	6	20
	26	100

Source: Research Primary Data, 2022.

From the data Table 3 shows that, from the respondents studied, the largest number of respondents was in the number of dependents of 1-4 families, namely as many as 20 respondents or by 80%, and in the number of dependents of families 4-6, namely 6 respondents or 20%. This shows that the number of dependents of the respondent's family is generally small, in accordance with what was stated by Maya (2008), that the number of dependents of 1-4 families is called small family dependents, 5-6 large family dependents. Based on the table above, it can be said that the burden that must be borne by the respondent's family of rice farmers in Lawada Jaya Village is small. The existence of this family will have a double impact on the respondent's farmer family, because economically it can be a burden for the head of the household but on the other hand it can also encourage the household economy to carry out activities in improving their farming. The size of the number of dependents of the family greatly affects the respondent's need for labor that can contribute to the management of the farm.

Farming Experience

Experience is an educational process that is obtained outside of school from an event or event that has been experienced and is useful for someone to do better than before. In this case, the experience of farming lowland rice to develop a managed business. According to Tuwo (2011), experience is the best teacher for farmers. Experience can be a reference in the preparation of steps in the future .Soeharjo and Patong (1984) categorize three groups of criteria and experience in farming, namely less experienced (<5 years), moderately experienced (5-10 years) and experienced (>10 years). So that the distribution of respondents from lowland rice farmers according to business experience can be seen in Table 4.

Table 4. Farming Experiences of Respondents for Rice Farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency, 2022.

Business Experience (Years)	Respondent (Person)	Percentage (%)
Less Experienced (<5)	2	6
Moderately Experienced (5-10)	8	31

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Experienced (>10)	16	63
Total	26	100

Source: Research Primary Data, 2022.

From the results of Table 4 shows that of the 26 respondents were rice farmers. The largest number of respondents with experience as lowland rice farmers is in the range of 10 years as many as 16 respondents or 63%, and the number of moderately experienced rice farmers in the range of 5-10 years is 8 respondents or 31% and respondents with less experience range 5 years as many as 2 respondents or 6%, this shows that rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency have been in this job for 10 years. According to Soeharjo and Patong (1984), farmers who work for 5-10 years are categorized as quite experienced, over 10 years experienced and 5 years less experienced.

Production

In the agricultural economy, production is the amount of farm production obtained in a certain time span. The units that are widely used are tons per year or kilograms per year, depending on the potential yield of each rice harvest in Lawada Jaya Village, Sawerigadi District, West Muna Regency. The research results obtained by researchers for farmer production variables show the following data:

Table 5. Descriptive Criteria of Production Variables in Rice Farming in Lawada Jaya Village, Sawerigadi District, West Muna Regency in 2022

No	Production (Kg/Ha)	Respondent (person)	Percentage (%)
1	500-900	19	80
2	>1000	7	20
	Total	26	100

Source: Primary Data Processed, 2022

Based on Table 5 above, the results of descriptive research for farmer production variables show that there are 19 farmers (80%) whose production is between 500-900 kg. Furthermore, there were 7 farmers (20%) who stated that their rice production was >1000 kg. The results showed that most of the rice production of farmers in Lawada Jaya

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Village, Sawerigadi District , West Muna Regency was included in the production between 500-900 kg. This shows that in general the rice farmers there have not been able to obtain satisfactory results from the rice farming they cultivate. Because in the past the results obtained by farmers were on average >1000 kg per hectare. Even the farmers there said that their agricultural produce was only sufficient to feed their family without being able to sell it so it was very difficult to meet other needs, even just to eat there were also those who lacked it. Based on the low production obtained, it can be concluded that rice farming cultivated by farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency cannot be used as the main livelihood that can support the family life of the farmers as a whole so that farmers still need other businesses to finance their lives. his family.

Factors Affecting Paddy Rice Production

Land area

The land area in this study is the area on the surface of the land used for cultivating lowland rice plants. The size of the land owned by farmers can indirectly affect the amount of production obtained and the costs incurred by farmers. In accordance with the opinion of Henanto, (1999) who stated that there are three groups of farmers based on the area of arable land, namely the area of narrow arable land (<0.5 hectares), the area of medium arable land (0.5-2 hectares), and the area of arable land. area (<2 hectares). The area of land owned by the people who are respondents can be seen in Table 6.

Table 6. Land area for rice farming in Lawada Jaya village in 2021

No	Land Area (Ha)	Number of people)	Percentage (%)
1	0.5-2	26	100
2	>2	0	0
	Amount	26	100

Source: Primary Data Processed, 2022

Based on Table 4.9 shows that of the 26 research respondents have a variety of land areas. In the study, it was found that the area of land planted with lowland rice with an area of 0.5 -2 Ha was owned by all respondents of rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency, namely as many as 26 respondents (100%). The area of land is very influential on production, therefore the wider the land owned by a farmer, the greater the opportunity for the farmer to earn higher income.

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Seeds

The use of seeds is important because these seeds will produce output by going through several processes, therefore the selection of seeds is very necessary to get good results. The type of paddy seed used by respondent farmers in carrying out lowland rice farming in Lawada Jaya Village is the type of grain. While the amount planted on land owned by respondent farmers is quite varied.

Table 7. Number of seeds used by respondents of rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency in 2022

No	Use of Seeds	Amount (Seed) (Kg)
1	Highest	61
2	Lowest	15
	Average	28.07

Source: Primary Data Processed, 2022

Based on Table 7 shows that the highest use of seeds for a single production is 60 Kg and the lowest is 15 Kg with the average use of seeds by respondents of lowland rice farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency, which is 28.077. The level of use of seeds depends on the area of land owned by the farmer. For farmers who have large land, the number of seeds used is more than farmers who have narrow land.

Labor

Labor is the number of workers used in carrying out rice farming activities. The workforce used in rice farming in Lawada Jaya Village is family labor and family labor. The results obtained indicate that the number of workers used by the respondents can be seen in Table 8.

Table 8. Number of Employment of Rice Farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency in 2022

No	Use of Seeds	Quantity (HOK)
1	Highest	23
2	Lowest	7
	Average	12.73

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Source: Primary Data Processed, 2022

Table 8 shows that the use of labor for lowland rice farmers in Lawada Jaya Village, Sawerigadi District, Muna Barat Regency is quite diverse. The highest workforce is 23 HOK and the lowest is 7 HOK with an average use of labor in one production of 12,739 HOK. The workforce used is the workforce in the family.

Fertilizer

Fertilizer is one type of material added to plants to meet the nutrient needs needed by plants so that they are able to produce well. Fertilizer can be given through the soil, leaves or injected into plant stems. Basically, fertilizers are divided into 2, namely organic fertilizers and inorganic fertilizers. Based on research conducted in Lawada Jaya Village, Sawerigadi District, West Muna Regency, lowland rice farmers use fertilizer. Some of the benefits of fertilizers are to help plant division and respiration, stimulate root growth cells, launch plant metabolism, repel pests , form enzymes and vitamins and strengthen plant resistance. The amount of fertilizer use can be seen in Table 9.

Table 9. The amount of fertilizer used by Rice Farmers in Lawada Jaya Village, Sawerigadi District, West Muna Regency in 2022

No	Use of Seeds	Amount (Kg)
1	Highest	150
2	Lowest	40
	Average	117.80

Source: Primary Data Processed, 2022

Table 9 shows that the highest one-time fertilizer use is 150 kg and the lowest is 40 kg with an average of 117.807 kg. The use of fertilizers in Lawada Jaya Village, Sawerigadi District, West Muna Regency generally does not use the recommended dose of fertilizer. Fertilization is done 3 times, the first fertilization is done when the paddy field is 7-10 days after planting, the second fertilization is done after the paddy is 21 days after planting, then continued with the third fertilization at the time of rice paddy field 42 days after planting. The benefits of NPK fertilizer include: helping cell defense and plant respiration, designing root growth cells, launching plant metabolism, repelling pests, forming enzymes and vitamins and strengthening food security.

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Results of Multiple Linear Regression Analysis of Paddy Rice Production

Testing the results of regression analysis using the SPSS version 20 program in lowland rice farming, the estimator model that is carried out is whether there is one estimator model variable in the significant model at the 95% confidence level, and how much diversity in the production variable (Y) is determined jointly -same by independent variables (X) entered into the estimator model, where the dependent variable (Y) is lowland rice production and the independent variable (X), consisting of land area (X_1), seeds (X_2), labor (X_3), and fertilizer (X_4). To determine the significant effect of independent variables, namely land area (X_1), seeds (X_2), labor (X_3) and fertilizer (X_4), the t-test is used if the regression coefficient of each variable is X_1-X_4 significant at the 95% confidence level or more, it means that every change in the variable X will also cause a significant change in the variables (land area, seeds, labor, and fertilizer) to the dependent variable Y (production). The production factors that influence and do not affect the level of rice production in Lawada Jaya Village, Sawerigadi District, West Muna Regency can be seen in the following table:

Table 10. Summary of the estimation results of the factors that affect the production of lowland rice in Lawada Jaya Village, Sawerigadi District, West Muna Regency using the coefficient of determination, partial test (t test) and simultaneous test (f test).

No	Variable	Regression Coefficient		Partial Test
		B	T	Sig
1	Constant	2693,539	1,841	0.078
2	Land area	789,153	2,184	0.039
3	Seeds	0.770	2,959	0.007
4	Labor	-0.407	-,312	0.758
5	Fertilizer	2,000	1.005	0.324
	F test (simultaneous test) Test the coefficient of determination (R^2)	0.930	97,300	0.000
	R value	0.969		

Source: SPSS 2022 output processed data

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The table above is mathematically formulated as follows:
Y = 2693,539 + 789,153 X1 + 0.770 X2 + (- 0.407 X3) + 2,000 X4

Based on the results of SPSS output, it can be seen the significant value of the constant value, land area, seeds, labor and fertilizer. The results of the analysis show that the variable land area has a regression coefficient of 789,153 with a significant level of 0.039 less than 0.05 . This shows that the variable area of land has a significant effect on the production of lowland rice farming in Lawada Jaya Village, Sawerigadi District, West Muna Regency. This condition is reinforced by Soekartawi (1994) who states that the area of land has a positive relationship, meaning that the larger the area of tanu cultivated, the higher the production produced. An increase in land area means an increase in the plant population. In addition, with the wider arable land, the farmers will be more enthusiastic about cultivating the land.The results of the analysis show that the seed variable has a regression coefficient of 28.077 with a significant value of 0.280. This shows that statistically the seed variable has a positive and significant relationship with a significant effect on the production of lowland rice farming. This is shown in the comparison of the significant value of 0.287 at the level of 0.05 with the criteria that if the value is significantly less than the value of , the independent variable has a significant effect on rice farming production.The results of the analysis show that the workforce has a regression coefficient of -0.407 with a significant value of 0.758. So it can be concluded that the labor variable has a negative and insignificant effect on the production of lowland rice farming. This is indicated by the comparison of the significant value of 0.758 at the 0.05 level with the criteria that if the significant value is greater than the value of , the independent variable has an effect on the dependent variable. So that the greater the number of workers used by farmers, the greater the production of lowland rice produced. The results of the analysis show that the fertilizer variable has a regression coefficient of 2,000 with a significant value of 0.324. This means that statistically the variables have a positive and significant relationship and have no significant effect on the amount of lowland rice farming production. This is indicated by the comparison value of significant value 0.324 at the level of 0.05 with the criteria if the significant value of the value of then the independent variable has no significant effect on the independent variable. According to Budiono (2002) who said that the level of farming productivity is basically greatly influenced by the level of application of the technology, and one of them is fertilization. Based on Table 4.13 , it can be seen that the significant level < 0.05 only exists in the variable area of land and the variable seed. This indicates that land area and seeds have

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a significant influence on the level of lowland rice production in Lawada Jaya Village, Sawerigadi District, West Muna Regency. Meanwhile, other variables such as labor and fertilizer have no significant effect on the level of lowland rice production.

Coefficient of Determination (R^2)

The coefficient of determination is the magnitude of the dependent variable (Y) which can be explained by all the independent variables (X) in the model. The coefficient of determination is the ratio between the number of regression squares and the total square. The coefficient of determination test (R^2) was used to determine how big the independent variables (land area, seeds, labor, and fertilizer) were in explaining the dependent variable (rice farming production). The results of the data analysis of the *adjusted* R2 coefficient are $^{0.930}$ while the R Square value is 0.940. This shows that 93.0 % while the remaining 0.7% is influenced by other variables. The R value obtained is 0.969 to 1, which means that the dependent variable (production) is closely related to the independent variables (land area, seeds, fertilizers and workers).

Autocorrelation Test

The autocorrelation test aims to test whether in a linear regression model there is a confounding error (*error*) in period t with a confounding error in the previous period, if there is, it means that there is an autocorrelation. The results of the Durbin Watson test using SPSS can be seen in the table below :

Tabel 11. Hasil Uji autokorelasi

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error Of The Estimate	Durbin-Watson
1	0,969[a]	0,940	0,930	89,54982	1,488

a. Predictors : (Constant), LN_X_4, LN_X_3, LN_X_1, LN_X_2

b. Dependent Variabel : LN_Y

Based on the results of the Durbin Watson test, the DW value for the independent variable is 1.488. Based on the Durbin Watson test, the DW value is located at du < DW < 2 – du or 0.969 < 0.940 < 1.488, so it can be concluded that there is no autocorrelation.

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t test

The t-test was used to determine whether each independent variable had a significant effect on the value of the dependent variable. Based on the provision that if the significant value is < 0.05 , the independent variable has a significant effect on the dependent variable, while if the significant value is > 0.05, the independent variable has no effect on the dependent variable. The production factors that influence and do not affect the level of rice production in Lawada Jaya Village, Sawerigadi District, West Muna Regency with the results of partial hypothesis testing can be seen in the following table:

Table 12. Results of hypothesis testing with partial test (t test)

No	Variable	Regression Coefficient		Partial Test
		B	T	Sig
1	Constant	2693,539	1,841	0.078
2	Land area	789,153	2,184	0.039
3	Seeds	0.770	2,959	0.007
4	Labor	-0.407	-,312	0.758
5	Fertilizer	2,000	1.005	0.324
	F test (simultaneous test)	0.930	97,300	0.000
	Test the coefficient of determination (R^2)			
	R value	0.969		

Source: SPSS output processed data

From the results of calculations using the SPSS program, it can be seen that the results of the t-test for the variable land area (X1) obtained the t- count result of 2.184 with a probability of 0.039. The probability value is less than 0.05, thus t there is a significant effect between land area 52 (X1) and lowland rice production (Y) in Lawada Jaya Village, Sawerigadi District, West Muna Regency. The results of the t-test for the seed variable (X2) obtained the t- count result of 2.959 with a probability of 0.007. The probability value is greater than 0.05, thus there is a significant effect between seeds (X2) and lowland rice production (Y) in Lawada Jaya Village, Sawerigadi District, West Muna Regency. The results of the t-test for the labor variable (X3) obtained the t - count result of -.312 with a

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probability of 0.758. The probability value is greater than 0.05, thus there is a significant effect between labor (X3) and rice production of low-income farmers (Y) in Lawada Jaya Village, Sawerigadi District, West Muna Regency. The results of the t test for the fertilizer variable (X4) obtained t_{count} of 1.005 with a probability of 0.324. . The probability value is greater than 0.05, thus there is a significant effect between labor (X3) and rice production of low-income farmers (Y) in Lawada Jaya Village, Sawerigadi District, West Muna Regency.

F Uji test

The F test is used to determine whether all of the independent variables (land area, seeds, labor and fertilizer) included in the model or equation have a joint effect on the dependent variable (Y). The results of the analysis together based on the results of the analysis with the help of SPSS program obtained the following results:

Table 13. Hypothesis Testing Results With Joint Test (F Test)

ANOVA [b]

Model	Sum of Squares	Mean Square	F	Sig
1	7.259	2.42	97,300	0.000

Source: SPSS output processed data

Based on Table 13 it can be explained that the calculated f value is 97.300 with a significant value of 0.000 < the value of is equal to 0.05 is equal to (5%), so it can be concluded that the variables of land area, seeds, labor and fertilizer together have an effect on significant effect on lowland rice production in Lawada Jaya Village, Sawerigadi District, West Muna Regency.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of research on the factors that affect the production of lowland rice farming in Lawada Jaya Village, Sawerigadi District, West Muna Regency, it can be concluded simultaneously (simultaneously) that land area, seeds, labor and fertilizer significantly affect the amount of lowland rice farming production. Meanwhile, each (partial) use of labor and fertilizer does not significantly affect the amount of lowland rice farming production in Lawada Jaya Village, Sawerigadi District, West Muna Regency.

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Suggestions

Based on the conclusions above, several suggestions can be made, including:

1. For farmers, it is advisable to increase the use of land area and seeds in managing lowland rice farming in order to increase the amount of lowland rice farming production.
2. For further researchers, discussing the factors that affect lowland rice production, especially in Lawada Jaya Village, Sawerigadi District, West Muna Regency to pay more attention to how to use fertilizers so that they can be fulfilled properly, so as to increase rice farming production.

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