

ANALYSIS OF FARMER S' ATTITUDES TOWARDS THE IMPLEMENTATION OF CROPPING SYSTEMS RICE FIELD RICE PLANTATION IN SENANING VILLAGE PEMAYUNG DISTRICT

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ABSTRACT

This study aims to (1) find out the general description of the implementation of the jajar legowo planting system in Senaning Village, Pemayung District, (2) find out the attitude of farmers towards the implementation of the jajar legowo planting system for rice fields in Senaning Village, Pemayung District, (3) find out the relationship between farmer attitudes towards the jajar legowo planting system for rice fields in Senaning Village, Pemayung District. This study was conducted in Senaning Village, Pemayung District. The location was determined intentionally (purposively) with the consideration that in this research area most farmers run rice fields by implementing the Jajar Legowo planting system. The determination of respondents was carried out using the census sampling technique with a total of 62 respondents. The analysis test used was descriptive and non-parametric statistical test with the Chi-Square (χ^2) method with a contingency of 2 x 2.

Based on the results of the study, it was found that the cognitive attitude of farmers had an effectiveness level of 90.3%, an affective attitude of 88.7% and a conative attitude of 88.7%. Which means that the cognitive attitude is higher and is able to influence the affective and conative components. It is concluded that farmers agree with the implementation of the Jajar Legowo planting system for lowland rice fields. This means that there is a real relationship between farmers' attitudes towards the implementation of the jajar legowo planting system for lowland rice fields in Senaning Village, Pemayung District.

Keywords: Farmer Attitudes, Lowland Rice, Implementation of the Jajar Legowo, Planting System

INTRODUCTION

Agriculture is one of the main sectors that is very important in the lives of people in Indonesia, most of the Indonesian people work as farmers. The majority of the Indonesian population consumes rice as their staple food. Rice (*Oryza sativa* L) is one of the main food crop commodities in Indonesia. Rice is still seen as a key product for economic and political stability (Purnaningsih R, 2006).

The development of food crop subsector in Jambi Province is basically an inseparable part of agricultural development in an effort to realize a sustainable agricultural development program. Jambi Province is an area that is widely planted with rice.

Jambi Province is one of the provinces in Indonesia that has great potential in the agricultural sector, especially in food crops. The agricultural sector also provides many jobs so that it can provide opportunities for people living in the area, especially the people of Jambi Province. In addition, the majority of people in Jambi Province who live in rural areas make a living in the agricultural sector.

One of the villages in Jambi Province is Senaning Village. Senaning Village is one of the villages that manages rice farming. Most farmers in Senaning Village have implemented the jajar legowo planting system because according to them this system is more efficient so that farmers can plant twice in one year. However, there are still some farmers who in implementing the jajar legowo system do not fully know how to implement the jajar legowo system correctly and farmers also experience obstacles in pest control. Then there are several external factors that influence farmers in implementing the jajar legowo planting system such as environmental conditions and several other things. This affects farmers' attitudes and behavior towards implementing the jajar legowo planting system.

In the implementation of the legowo planting system, it is influenced by many factors, including attitude. The attitude of farmers in implementing the legowo planting system is the tendency of farmers towards the activity which is reflected in their mental attitude, besides various other factors such as personal experience, the influence of other people who are considered important, the influence of culture, mass media, educational institutions and emotional influences. According to Azwar (1995), the components of the attitude include: cognitive components which are a representation of what is believed by the individual who owns the attitude, affective components which are feelings concerning the subjective emotional

aspects of a person's attitude object and conative components are aspects of certain behavioral tendencies to act towards objects according to the attitude that a person has.

Based on the description, the formulation of the problems studied in this study are: 1) how is the general description of the implementation of the jajar legowo planting system for rice fields in Senaning Village, Pemayung District, 2) how are farmers' attitudes towards the implementation of the jajar legowo planting system for rice fields in Senaning Village, Pemayung District, 3) how is the relationship between farmers' attitudes towards the jajar legowo planting system for rice fields in Senaning Village, Pemayung District. Meanwhile, the objectives of this study are: 1) to determine the general description of the implementation of the jajar legowo planting system for rice fields in Senaning Village, Pemayung District, 2) to determine the attitude of farmers towards the implementation of the jajar legowo planting system for rice fields in Senaning Village, Pemayung District, 2) to determine the relationship between farmers' attitudes towards the jajar legowo planting system for rice fields in Senaning Village, Pemayung District.

RESEARCH METHOD

The research location chosen by the researcher was Senaning Village located in Pemayung District, Batang Hari Regency, Jambi Province. The research was conducted in June - July 2024. The data needed to explain the aspects studied, namely farmers' attitudes towards the jajar legowo planting system, include: name, age, level of formal education, number of family members, land area and length of farming. Farmers' attitudes include; cognitive aspects, affective aspects, and conative aspects. The types of data needed in this study are primary data and secondary data.

The sample in this study were rice farmers in Senaning Village. The number of rice farmers in Teluk Village is 62 farmers. If the population is less than 100 people, then the sample is taken with the total number. However, if the number of samples exceeds 100 people, then 10-15% or 20-30% of the existing population can be taken.

To find out the attitude of farmers towards the implementation of the jajar legowo planting system for ddy fields in Senaning Village, Pemayung District, descriptive analysis is used, presented in the form of a frequency distribution table. Descriptive analysis aims to describe or depict the data that has been collected as it is without intending to make applicable conclusions or generalizations. Descriptive analysis is used to describe the attitude of farmers towards the implementation of the jajar legowo planting system in the research area. The formula used is the Chi-Square test with a 2x2 contingency table. If the cell contains a frequency > 5, then use the following formula:

$$X^2 = \frac{N(AD-BC)^2}{(A+B)(C+D)(B+D)}$$

Meanwhile, if a cell contains a frequency < 5, the following formula is used:

$$X^2 = \frac{N[(AD-BC)\frac{N}{2}]^2}{(A+B)(C+D)(B+D)}$$

Information :

X² : Chi Square

N : Number of Samples

A, B, C and D : values in the 2x2 contingency table

In terms of tubulation, this formula can be described as follows:

Table 1. Chi-Square Test Model with 2 x 2 contingenc Implementation of Planting System The Line of Judgement

Farmers' Attitude	Agree	Don't agree	Amount
Agree	A	B	A + B
Don't agree	C	D	C + D
Amount	A + C	B + D	N

The value of X² with one degree of freedom (Db) = 1 at a 95% confidence level is

3.84 in testing the calculated X² value compared to the X² table with the following decision:

1. Accept H₀, reject H₁ if X² count X² table means there is no relationship between farmer attitudes and the implementation of the legowo planting system.

2. Accept H1, reject H0 if X2 count X2 table means there is a relationship between the relationship between farmer attitudes and the implementation of the legowo planting system.

Furthermore, to measure the closeness of the relationship between farmers' attitudes towards the implementation of the legowo planting system in Senaning Village, Pemayung District, the following formula is used:

$$r = C_{max} = \frac{\sqrt{\frac{m-1}{N}}}{\sqrt{\frac{2-1}{2}}} = \frac{\sqrt{1}}{\sqrt{2}} = 0,707 \quad \text{Chit} = \sqrt{\frac{x^2}{x^2+N}}$$

Information :

r = coefficient of closeness of relationship

X2 = Chi-Square Test Value

N = Number of Samples

m = The largest number of columns / rows With category:

- a. 0 - 0.353 means having a weak relationship
- b. 0.354 – 0.707 means there is a strong close relationship

Accept H0 If tcount < ttable = ($\alpha = 5\%$ db = N- 2) Reject H0 If tcount > ttable
= ($\alpha = 5\%$ db = N- 2) Where:

H0: There is no close relationship between the relationship between farmers' attitudes towards the implementation of the legowo planting system in Senaning Village, Pemayung District.

H1: There is a close relationship between the relationship between farmers' attitudes towards the implementation of the legowo planting system in Senaning Village, Pemayung District.

RESULTS AND DISCUSSION

1. Overview of Paddy Farming Business in the Research Area

Pemayung District has 19 villages, one of which is Senaning Village. Most of the people of Senaning Village work as farmers and most of them are rice farmers. Rice farming in the research area applies the jajar legowo planting system with a planting period of two times a year. Farmers carry out rice farming to meet their daily needs and some are also sold among the community. Most farmers have known and applied the jajar legowo planting system.

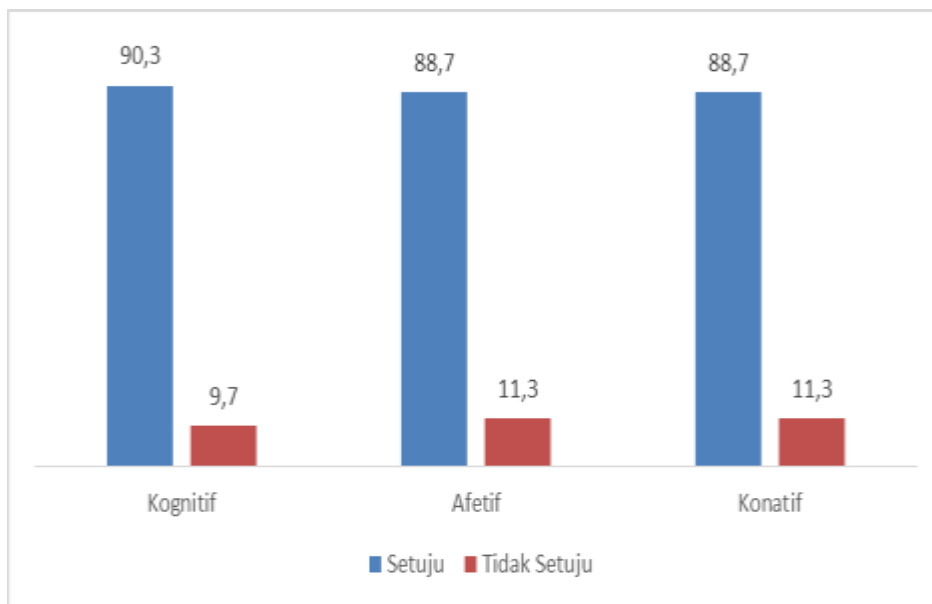
The legowo planting system is carried out through several stages, namely making planting rows, planting, fertilizing, weeding, controlling pests and diseases. Farmers said that implementing the legowo planting system makes it easier for farmers in the process of rice maintenance. most farmers in Senaning Village apply the jajar legowo planting system well. However, there are also some farmers who do not apply the jajar legowo planting system due to external factors, meaning that the condition of the farmer's land is not suitable for planting rice. Such as dry and loose soil conditions so that it is not suitable for the implementation of the jajar legowo planting system and there are also locations where farmers' rice fields are prone to flooding so that farmers are reluctant to plant rice. These farmers know and like the jajar legowo planting system, but due to several obstacles faced, farmers do not apply the jajar legowo planting system.

2. Farmers' Attitudes Towards the Implementation of the Legowo Planting System

Attitude is a form of reaction or tendency of farmers to like or dislike a technology. The attitude that a person has gives a pattern to the behavior or actions of the person concerned. The attitude of farmers towards the implementation of the legowo planting system can be known by looking at the respondents' answers to the questions answered in the questionnaire. The questions used in this study were in the form of agree and disagree.

From all the respondents' answers, they were tabulated based on each component as in Figure 1 below:

Figure 1. Score of Farmers' Attitude Components Towards the Implementation of the Row Planting System Legowo in Senaning Village, Pemayung District 2024



Source: Primary Data Processing Results 2024\

3. Implementation of the Legowo Row Planting System

The application of the jajar legowo planting system is a science for farmers to be able to increase the production of rice farming. The jajar legowo planting system aims to produce materials that meet good quality standards, implement agricultural practices that do not cause pollution and a sustainable livelihood approach through several components. To find out the application of the jajar legowo planting system for rice fields, see table 1 below:

Table 2. Score of Implementation of the Jajar Legowo Planting System for Paddy Fields in Senaning Village Pemayung District 2024

Category	Implementation of the Legowo Row Planting System	
	Frequency (People)	Percentage (%)
Yes	55	88.7
No	7	11.3
Amount	62	100

Source: Primary Data Processing Results, 2024

Measurement of the implementation of the legowo planting system is carried out by recording The respondents' questionnaire answers in the form of yes and no questions covered five aspects in the implementation of the legowo planting system, including making planting rows, planting, fertilizing, weeding, and controlling pests and diseases.

4. Relationship between Analysis of Components of Farmers' Attitudes Towards the Implementation of the Legowo Row Planting System

4.1 Relationship between Cognitive Component Analysis of Farmers and the Implementation of the Legowo Row Planting System

Table 3. Matrix of Relationships Between Cognitive Components and the Implementation of the Jajar Legowo Planting System for Lowland Rice in Senaning Village, Pemayung District Using Non-Parametric Chi-Square Statistics

Cognitive Attitude	Implementation of the Legowo Row Planting System		
	Amount		
	Agree	Don't agree	
Agree	54	2	56
Don't agree	1	5	6
Amount	55	7	62

Source: Primary Data Processing Results, 2024

Based on non-parametric statistical tests using the 2 x 2 contingency Chi-Square test, the value $X^2_{count} \geq$ get it done and appropriate. The greater the farmer's level of knowledge, the higher the relationship with the implementation of the Jajar Legowo planting system

4.2 Relationship between Analysis of Farmers' Affective Components and the Implementation of the Legowo Row Planting System

Table 4. Matrix of Relationships Between Affective Components and the Implementation of the Jajar Legowo Planting System for Lowland Rice in Senaning Village, Pemayung District Using Non-Parametric Chi-Square Statistics

	Implementation of the Legowo Row Planting System Affective Attitude		
	Amount		
	Agree	Don't agree	
Agree	53	2	55
Don't agree	2	5	7
Amount	55	7	62

Source: Primary Data Processing Results, 2024

Based on non-parametric statistical tests using the 2 x 2 Chi-Square contingency test, the value $X^2_{count} \geq$ in accepting

every application of the Jajar Legowo planting system.

4.3 Relationship between Analysis of Farmers' Conative Components and the Implementation of the Legowo Row Planting System

Table 5. Matrix of Relationships Between Conative Components and the Implementation of the Jajar Legowo Planting System for Lowland Rice in Senaning Village, Pemayung District Using Non-Parametric Chi-Square Statistics

	Implementation of the Legowo Row Planting System Conative Attitude		Amount
	Agree	Don't agree	
Agree	53	2	55
Don't agree	2	5	7
Amount	55	7	62

Source: Primary Data Processing Results, 2024

Based on non-parametric statistical tests using the 2 x 2 contingency Chi-Square test, the value of $X^2_{count} \geq X^2_{table}$ ($2.91 \geq 1.67$) was obtained at the level of confidence ($\alpha = 0.05$ db = 60 = 1.67 (Appendix 15) then the decision H_0 was rejected, meaning that there was a relationship between conative and the implementation of the legowo planting system in the research area. The results of this study indicate that farmers in the research area implement the legowo planting system.

5. Relationship between Analysis of Farmers' Attitudes Towards the Implementation of the Legowo Row Planting System

Analysis of farmers' attitudes towards the implementation of the jajar legowo planting system in Senaning Village, Pemayung District is seen from three components of attitude, namely, cognitive components, affective components, and conative components. The relationship between the three components explains that farmers' attitudes towards the implementation of the jajar legowo planting system tend to agree, which is shown in the results of the questionnaire obtained. Behavioral tendencies are based on knowledge and feelings, meaning that a person's behavior in certain situations will be largely determined by their knowledge and feelings. Behavioral tendencies in a person depend on the object of attitude they face (Azwar, 1995).

Table 16. Matrix of Relationships Between Attitudes Towards the Implementation of Row Planting System Legowo Paddy Fields in Senaning Village, Pemayung District 2024 Using Non-Parametric Chi-Square Statistics

Attitude	Implementation of the Legowo Row Planting System		Amount
	Agree	Don't agree	
Agree	54	2	57
Don't agree	1	5	5
Amount	55	7	62

Source: Primary Data Processing Results, 2024

Based on non-parametric statistical tests using the 2 x 2 contingency Chi-Square test, the value $X^2_{count} \geq$

Research Implications

The farmers who were respondents in this study were rice farmers in Senaning Village, Pemayung District. From the results of the study, it can be seen that the results of the measurement of the cognitive component of farmers' attitudes agreed to the implementation of the jajar legowo planting system. The results of the measurement of the affective component of farmers' attitudes agreed to the implementation of the jajar legowo planting system. The results of the study of the conative component of farmers' attitudes agreed to the implementation of the jajar legowo planting system. So that the dominant attitude of the number of respondents agreed to the implementation of the jajar legowo planting system. However, there were also farmers who did not agree, this was caused by farmers who knew but did not like and did not implement the jajar legowo planting system according to the rules. Such as in making planting rows according to the rules of the jajar legowo planting system using plastic ropes, but some farmers did not like it because it was too complicated so they just made lines on the ground using wood, there were also those who planted directly without lines and several other things that were in accordance with the rules of the jajar legowo planting system but were not followed by farmers. There are some farmers who have the knowledge, then like, and have the desire to apply the jajar legowo planting system, but they do not apply it, this is due to environmental conditions such as hard and loose soil conditions so that it is not suitable for the application of the jajar legowo planting system and there are also several locations of farmers' rice fields that are prone to flooding so that farmers are reluctant to plant rice in lowland areas.

CONCLUSION

The jajar legowo planting system was introduced to farmers through the Senaning Village farmer group since 2013 by extension workers. There are 85.4% of farmers who implement the creation of planting rows and planting according to the recommendations of the jajar legowo planting system, there are 87.1% of farmers who have implemented fertilization according to the recommendations, there are 88.7% of farmers who implement weeding according to the recommendations, there are 85.4% of farmers who implement pest and disease control according to the recommendations of the jajar legowo planting system. Overall, there are 88.7% of farmers who have implemented the jajar legowo planting system correctly according to the recommendations. The attitude of farmers towards the implementation of the legowo planting system is mostly as many as 90.3% of farmers agree. Based on the chi square test, there is a relationship between farmers' attitudes towards the implementation of the legowo planting system in Senaning Village, Pemayung District.

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