ANALYSIS OF INTERCROPPING FARMING BUSINESS OF DRY RICE (ORYZA SATIVA L.) AND RED CHILI (CAPSICUM ANNUM L.) IN KUTA USANG VILLAGE, PEGAGAN HILIR DISTRICT

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ABSTRAK

This research aims to analyze the effects of production factors, namely paddy seed cost, chili seed cost, chili fertilizer cost, and chili labor cost, on the household income of intercropping farmers cultivating upland rice (Oryza sativa L.) and red chili (Capsicum annuum L.) in Kuta Usang Village, Pegagan Hilir Sub-district, Dairi Regency. Additionally, the research measures the financial feasibility of the intercropping farming system. The sampling technique used was simple random sampling, with a total population of 308 farmers engaged in intercropping upland rice and chili. The sample size was determined using the Slovin formula with a 10% margin of error, resulting in 60 respondents. The research utilized primary and secondary data, collected through surveys using open-ended questionnaires and direct field observation. Primary data were obtained directly from the farmer respondents, while secondary data were gathered from official publications such as BPS and supporting documents. The findings indicate that paddy seed cost, chili seed cost, chili fertilizer cost, and chili labor cost simultaneously have a significant effect on farmers' household income, with a coefficient of determination (R^2) of 86.7%. However, partially, only the chili fertilizer cost variable shows a significant effect. The financial feasibility of the intercropping farming, measured by the B/C ratio, resulted in an average value of ***1.6****, indicating that the intercropping of upland rice and red chili is feasible since the income exceeds the costs incurred. This research is expected to serve as a reference for farmers, policymakers, and future researchers in developing more efficient and sustainable intercropping farming strategies.*

MAXIMUM ARTICLE LENGTH BETWEEN 10 TO 20 PAGES, INCLUDING REFERENCES. PLEASE REMEMBER; EXCELLENT ARTICLES ARE JUST TO THE POINT. UP TO 30% OF THE ARTICLE CONTENT SHOULD INCLUDE INTRODUCTION TO THE METHODOLOGY, AND THE REST, 70% OF THEM, IS TO Elaborate RESULTS OF SERVICE IN THE RESULTS AND DISCUSSION SECTION, AND REFERENCES.

INTRODUCTION

Intercropping is a method for improving land use efficiency and increasing income by growing multiple crops on the same plot of land at the same time. This method offers the potential to increase land productivity and farmer income through crop diversification and more efficient resource management. The land equity and financial benefits of intercropping are greater than those of monoculture (Karo et al., 2019).

Research on intercropping dryland rice and red chili peppers has shown encouraging results in terms of economics and land efficiency. A research by Saragih (2023) showed that intercropping red chili peppers with tomatoes provided higher revenue and efficiency compared to monoculture systems. Furthermore, research by Panjaitan (2021) found that intercropping is more efficient than monoculture, with a higher R/C (Revenue/Cost) value.

Dairi Regency is not the largest rice production center in North Sumatra. However, Dairi's rice production has the potential to meet the food needs of the Dairi community. In this case research, Dairi rice farmers consistently intercropped with chili peppers.

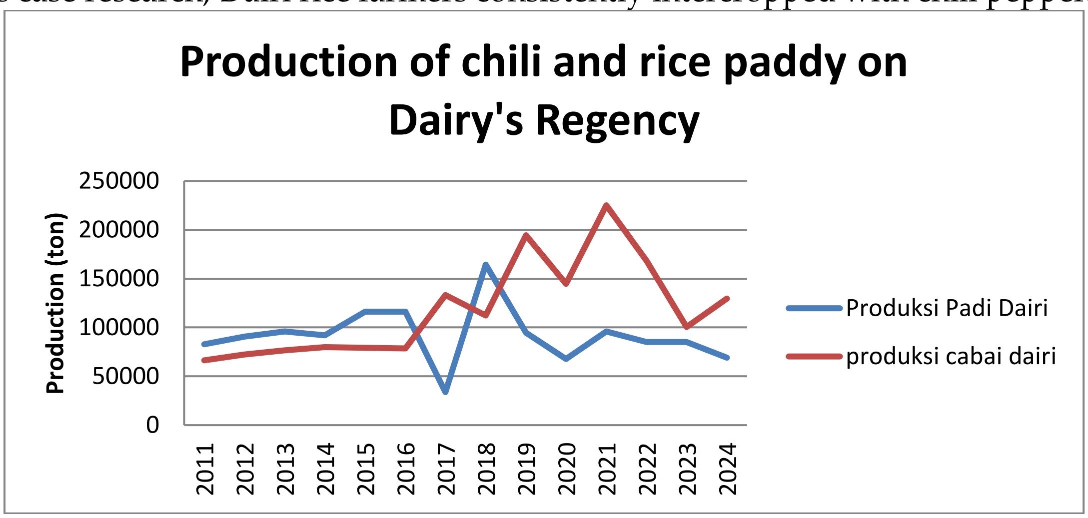


Figure 1. Rice and chili production data for Dairi Regency

Figure 1 shows that Dairi chili production has not fluctuated since 2020. Chili production, on the other hand, has fluctuated considerably since 2016, but continues to show an increase. This indicates that rice production has not undergone intensification or extensification in its farming operations. Meanwhile, chili production has increased, although this indicates an increase in intensification or extensification of farming operations. This increase in production, assuming ceteris paribus, has resulted in increased farmer income.

Comparing this with the Farmer's Exchange Rate (NTP), considered an indicator of farmer welfare, shows that the farmer's exchange rate has not shown a significant increase. From this comparison, one issue can be identified: the gap between increased production and a stable NTP. Therefore, research is needed to analyze rice and chili farming in the research area.

The urgency of this research is driven by several key factors, such as increasing productivity and farmer income. By adopting an intercropping system, farmers can increase their yields and, in turn, their income. Given price fluctuations and the challenges of monoculture, crop diversification can be an effective strategy for farmer economic stability.

Furthermore, it optimizes land use, as agricultural land in Indonesia is often limited and needs to be optimized. Intercropping systems allow for more effective land use, utilizing available space to grow more than one crop.

There's also the factor of climate change resilience, where intercropping systems can offer advantages in terms of resilience. Different crops have different water and nutrient requirements, thus complementing each other in utilizing available resources.

Environmental sustainability is also a key factor in the urgency of this research. Intercropping tends to be more ecologically sustainable than monoculture. It can aid in more effective pest management and reduce the need for pesticides and chemical fertilizers, ultimately reducing negative impacts on the environment.

Intercropping systems have numerous benefits. According to research by Saragih (2023), intercropping red chilies with tomatoes demonstrated that intercropping yields higher returns with a R/C value of 10.09, compared to monoculture, which only achieved 7.78. Another research by Panjaitan (2021) confirmed that income from intercropping systems is higher than monoculture, indicating greater efficiency in land use and agricultural inputs.

Furthermore, research by Setiawati and Saetarso (2008) showed that intercropping red chili peppers with other crops such as cabbage and tomatoes can significantly suppress pest populations, contributing to increased productivity and efficiency.

Based on the background and urgency above, this research aims to further explore the economic and ecological benefits of an intercropping system of upland rice and red chili peppers. Through comprehensive analysis, this research is expected to provide useful insights for farmers and policymakers to improve sustainable and economically profitable agricultural practices.

Based on the background and urgency outlined above, this research seeks to answer two fundamental questions that lie at the heart of the problem. First, this research aims to identify the extent to which production factors—from seeds, fertilizers, pesticides, to labor—significantly influence the income earned by farming households. The focus is on the practice of intercropping dryland rice and red chilies in Kuta Usang Village, Pegagan Hilir District, Dairi. This understanding is crucial for identifying which inputs are most crucial in determining the financial success of farmers.

Second, this research also aims to measure the financial efficiency of the intercropping farming system itself. In other words, how effectively are farmers' production costs used in generating income? Is this farming system considered efficient and financially profitable? The answers to these questions will provide a clear picture of the economic feasibility of the implemented farming system.

Specifically, this research was designed with two main objectives that align with the problem identification. The first objective is to analyze the influence of production factors, such as the use of seeds, fertilizers, pesticides, and labor, on income levels from dryland rice and red chili farming. This analysis is expected to reveal the contribution of each factor, thus guiding decision-making at the farmer level.

The second objective is to analyze the financial efficiency of the dryland rice and red chili intercropping model at the research site. Through this analysis, it will be determined whether this cropping pattern provides a good return compared to the costs incurred, allowing for an assessment of its feasibility and economic profitability.

The results of this research are expected to provide tangible benefits to three main parties. First, for intercropping farmers in Kuta Usang Village, the findings of this research are expected to provide valuable considerations and input in managing their farming businesses. By understanding the most influential production factors and their efficiency levels, farmers can allocate their resources more optimally to increase income.

Second, for the government and policymakers, this research can serve as an empirical basis for formulating policies or distributing targeted assistance. With accurate data, assistance such as fertilizer subsidies, superior seeds, or training programs can be targeted to have a more direct impact on improving the welfare of local farmers.

Third, this research can serve as a reference and comparative material for academics and future researchers. This research openly acknowledges one limitation: it does not include a payback period analysis. Therefore, this report also serves as a recommendation for future research to consider the payback period for farmers' businesses to complement a more comprehensive financial feasibility analysis.

LITERATURE REVIEW

This research builds a theoretical and methodological foundation for analyzing the comparative efficiency of corn production based on the application of recommended versus non-recommended plant spacing. This chapter integrates a literature review on corn botany, cultivation, and post-harvest with an in-depth analysis of relevant previous research. Next, a conceptual framework and hypotheses are formulated to guide the research. The primary focus and novelty of this research lies in the analysis of plant spacing as a differentiating factor in economic efficiency, an aspect that has been largely unexplored in previous studies.

Corn (Zea mays L.) is an annual crop from the Poaceae (grass) family. Its life cycle ranges from 80-150 days, divided into vegetative and generative phases. The genus Zea has several species, and the cultivated Z. mays has a wild relative known as teosinte. This plant has a large genome, approximately 2.5 Gbp, resulting from allotetraploidization (Garcia-Lara and Serna-Saldivar, 2019; Sulaiman et al., 2024).

Optimal corn cultivation begins with soil management. Traditional plowing has been shown to have a more positive impact on production than drilling or hilling methods. Furthermore, a combination of nitrogen, phosphorus, and potassium (NPK) fertilizers significantly impacts yields (Vad et al., 2023).

Another strategy to increase production is through planting timing management. Early planting can increase profits without significantly increasing production costs. This is supported by the use of modern agricultural inputs such as superior hybrid seeds, herbicides, fungicides, and quality starter fertilizers (Hicks & Wright, 2017).

The harvesting process must comply with SNI IndoGAP standards, which include the correct harvesting age, harvesting methods (picking, cutting, etc.), and the tools used. Burning crop residues is prohibited and must be managed as compost (Zona et al., 2024).

The post-harvest handling described is crucial for maintaining quality and reducing yield losses:

1. Drying: Aims to reduce moisture content to 14% for trade or 12% for storage. Methods can be sun-dried (7-8 days) or machine-dried, which is faster and weather-independent (Maya, 2023).
2. Shelling: Various shelling tools are discussed, ranging from traditional (hand-held, rotary iron, TPI type) with low capacities (2.5-7 kg/hour/person) to semi-mechanical ones. Semi-mechanical tools such as bench-type models already use shelling cylinders and cranks, although most are still made of wood (Yokasing et al., 2020).
3. Sorting: Carried out to separate good-quality beans from damaged and impure ones. This can be done traditionally (with a winnowing machine) or using a cleaning machine combining a sieve and a blower (Silfiana et al., 2024).
4. Storage: Packaging and storage temperature have a significant impact. The use of polypropylene (PP) packaging at 10°C has been shown to be more effective in maintaining moisture content, reducing weight loss, and maintaining the freshness of sweet corn compared to polyethylene (PE) packaging or no packaging (Ansar et al., 2020).

A critical review of eight relevant previous studies. The following table summarizes the key findings and novelty of this research.

This research is unlike any previous research that specifically used plant spacing as the primary variable for comparing economic efficiency between farmer groups. Previous studies have focused more on seed varieties, soil management systems, socio-economic factors, or government programs. Therefore, the novelty of this research lies in its attempt to isolate and analyze the effect of recommended plant spacing on the economic efficiency (B/C Ratio) of corn farming, compared to non-recommended plant spacing.

The research framework illustrates the logical flow connecting key variables. Based on the description in the document, the research framework can be visualized and explained:

1. Root Cause: Starting from corn farming activities at the research site.
2. Determining Factors: Corn production is influenced by various input factors, such as seeds, fertilizers, pesticides, and labor. However, of all these factors, plant spacing was selected as the primary differentiating variable to be studied.
3. Group Division: The sample farmers were then grouped into two groups based on their plant spacing practices: Group I (Recommended Plant Spacing) and Group II (Non-Recommended Plant Spacing). This difference resulted in the corn production of Groups I and II.

4. Core Analysis: The production of both groups was then analyzed for economic efficiency using the B/C Ratio (Benefit/Cost Ratio) formula.
5. Final Objective: The B/C ratio values of the two groups are compared to determine which is more economically efficient. The results of this comparison will answer the research question regarding which planting spacing system is more profitable.

Hypotheses are formulated to be statistically tested in the research. Based on the conceptual framework, the hypotheses proposed are:

- Null Hypothesis (H_0): There is no real and significant effect of the number of seeds, fertilizer, pesticides, labor, and planting spacing on corn production in the research area.
- Alternative Hypothesis (H_1): There is a real and significant effect of the number of seeds, fertilizer, pesticides, labor, and planting spacing on corn production in the research area.

This hypothesis indicates that this research will not only compare efficiency but will also examine the collective influence of all production factors (including planting spacing) on the achieved production level.

The literature review has established a strong foundation for the research. It provides an in-depth understanding of corn. Analysis of previous research successfully identified a knowledge gap, namely the lack of specific studies on planting spacing as a determinant of economic efficiency, which is the novelty of this research. The research framework is logical and outlines the investigative flow, from identifying production factors to comparing efficiency. The proposed hypotheses are relevant and ready to be tested. Therefore, all components in this chapter are ready to guide the implementation of field research and subsequent data analysis to answer the question of how much the recommended planting distances affect the economic efficiency of corn farming.

METODOLOGI

This quantitative research compares economic efficiency by analyzing ratio data to assess performance and efficiency of resource use(Acharya dkk., 2020). Operationalization of variables is a step to make research variables measurable so that they can be analyzed quantitatively (Sugiyono,2019).

Table 1. Variables used in research

Independent Variable	**Unit**	**Dependent Variable**	**Unit**
Seeds are corn seeds used in corn farming in the research area.	Unit	Income is the result of selling red chilies minus the production costs of rice and red chilies.	Rupiah
Fertilizers are organic and inorganic fertilizers used by farmers in the research area.	Kg		
Pesticides are pest control chemicals used in the research area.	Liter		

Labor is the people within the family or outside the family who help with farming.	HOK		
Agricultural machinery is the farming equipment used to support farming.	Unit		
Land is the expanse of land used for farming.	Ha		

Data collection techniques must be carefully planned and employ appropriate methods to ensure accuracy. This research employed a face-to-face survey with an open-ended questionnaire for corn farmers in Kuta Usang Village. The open-ended questionnaire allowed respondents to provide their own answers to the questions. Selecting the right sampling technique is crucial to ensuring a representative sample and valid research results. A sample is a subset of a population that represents it, and its size can be determined using methods such as the Slovin method, which is useful when population information is incomplete. This research used the Slovin method with a 10% margin of error, which is considered appropriate for social and humanities research and resource constraints. From a population of 308 farmers, a sample size of 75 individuals was obtained. The sampling technique used was simple random sampling to provide equal opportunity for each member of the population and ensure unbiased representation, a process aided by an online random number generator. The data analysis design in this research involved testing classical assumptions to prevent bias. These tests consisted of 1) Normality test using the Kolmogorov-Smirnov method to ensure the data were normally distributed. 2) Multicollinearity test using the VIF calculation to detect correlations between independent variables. 3)Heteroscedasticity test (using the White test or residual plot) to ensure constant residual variance. 4)Autocorrelation test using the Durbin-Watson test to examine correlations in the residuals. Data were deemed suitable for further analysis if all classical assumptions were met. Once all classical assumptions are met, data analysis can be performed. The data analysis used in this research is multiple linear regression.

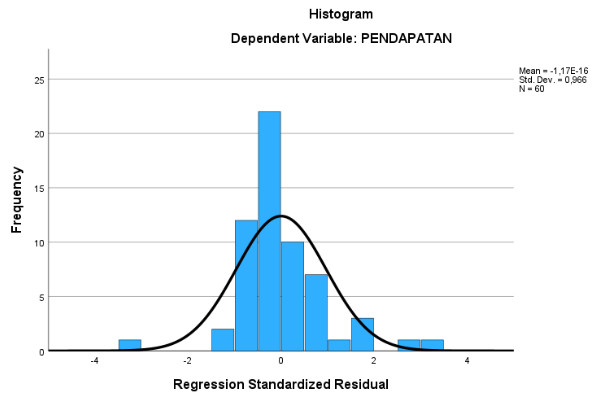
Once all classical assumptions have been met, data analysis can be performed. The data analysis used in this research is as follows:

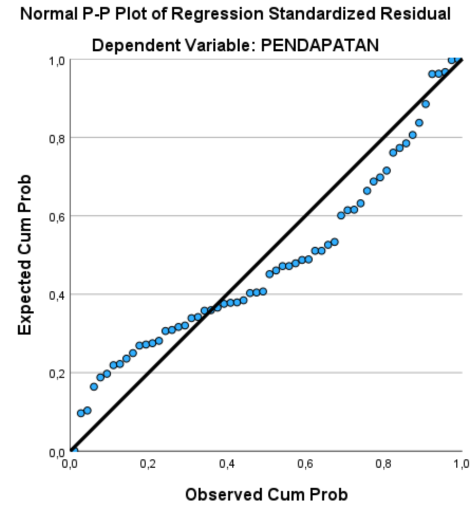
I. Multiple linear regression method: Primary data from a survey using a questionnaire. Ratio (seed, fertilizer, pesticide, labor, and production) and ordinal (planting distance). With the following estimation model: $Prod = \alpha + \beta_1 B + \beta_2 P + \beta_3 Pe + \beta_4 TK + \beta_5 JT + e$ (Amalia, 2023)

II. Farming feasibility method: Primary data from a survey using a questionnaire. Ratio: total farmer net income (TR-TC) and total farmer costs (FC+VC). With the following estimation model: B/C = (TR-TC)/(FC+VC) (Yusmaningsih et al., 2022)

RESEARCH RESULT

Before analyzing the relationships between variables, this research first ensured data quality and the feasibility of the regression model. The results of the classical assumption test showed that:





The data were normally distributed, as indicated by the points in the P-P plot spreading around the diagonal line.

Heteroskedasticity Test: Glejser
Null hypothesis: Homoskedasticity

F-statistic	4.685549	Prob. F(4,66)	0.0022
Obs*R-squared	15.70287	Prob. Chi-Square(4)	0.0034
Scaled explained SS	23.92328	Prob. Chi-Square(4)	0.0001

There were no heteroscedasticity issues, based on the Glejser test, where the Obs*R-squared value (15.70) was greater than the 0.05 significance level.

Model		**Collinearity Statistics**	
		Tolerance	**VIF**
1	(Constant)		
	Cost of Seed of chili	0,902	1,109
	Cost of Fertilizer of Chili	0,946	1,058
	Labor of Chili	0,844	1,184
	Cost of Seed of Rice Paddy	0,888	1,127

There was no interfering multicollinearity, indicated by VIF values for all independent variables being less than 5.

Durbin-Watson	**dL**	**dU**
	K=4;N=60	**K=4;N=60**
1,988	1,4443	1,7274

There was no autocorrelation, with a Durbin-Watson statistic value of 1.998, which is close to 2.

With all classical assumptions met, the constructed regression model is deemed feasible and valid for use in further analysis and inference.

Multiple linear regression analysis produces an estimation model that explains the relationship between production factors and farmer income. The results revealed two key findings:

Strong Simultaneous Effects: Collectively (simultaneously), all independent variables—namely, chili seedling costs, chili fertilizer costs, chili labor costs, and rice seedling costs—have a significant and tangible effect on income. This is evidenced by the F-test value (29.046), which is much greater than the F-table (5.54) and a significance value below 0.001. This relationship is very strong, with the four variables explaining 86.7% of the variation in income (R-Square = 0.867), while the remaining 13.3% is influenced by other factors outside the model.

Negative and Insignificant Partial Effects: Individually (partially), all variables show a negative and insignificant effect on income. This means that increasing expenditures on seeds, fertilizer, and labor actually tends to reduce income, although the effect is not statistically strong. This negative regression coefficient, for example, indicates that adding 1 kg of rice seeds actually reduces income by Rp 15,538, indicating inefficiency in the allocation and use of production inputs. This phenomenon is strongly suspected to be caused by over-input, namely the use of resources (especially seeds and fertilizers) that exceed the optimal dosage required by the crop, thus only increasing costs without a proportional increase in yield.

Despite indications of inefficiency in input use, overall, the intercropping of upland rice and red chili peppers at the research site proved feasible. This is indicated by the average R/C (Benefit/Cost Ratio) of 1.682. This value means that for every Rupiah spent on production costs, farmers receive Rp 1.682 in income. However, there is wide disparity among farmers, with the lowest R/C value being only 0.0024 and the highest reaching 25.063. Farmers with the highest efficiency generally employ more rational practices, such as optimizing family labor, reducing reliance on chemical fertilizers, and focusing on the use of manure and compost.

DISCUSSION

This research was conducted to analyze production factors influencing farmer income in an intercropping system of dryland rice and red chili peppers in Kuta Usang Village and to assess the financial efficiency of this farming system (Sinaga, 2024). This village is one of the areas with significant agricultural potential in Dairi Regency, but still faces various geographical and accessibility challenges (BPS Dairi Regency, 2024). Intercropping is a cultivation method that plants two or more crops simultaneously on the same plot of land to increase land use efficiency and reduce the risk of crop failure (Karo et al., 2019). In the context of this research, dryland rice and red chili peppers were chosen because both are commonly grown in mountainous areas with moderate to high rainfall and relatively fertile soil (Utama, 2015). The results of a multiple linear regression analysis indicate that the variables of rice seedling costs, chili seedling costs, chili fertilizer costs, and chili labor simultaneously have a significant effect on farmer income (Sinaga, 2024). This is evidenced by the calculated F-value of 29.046, which is greater than the F-table of 5.54, and a significance value of <0.001, indicating that the overall regression model is valid in explaining variations in farmer income (Sugiyono, 2019). The coefficient of determination (R^2) of 86.7% indicates that variations in farmer income can be explained by these four variables (Amalia, 2023). However, partially, only the cost of chili fertilizer significantly influences farmer income (Sinaga, 2024). This indicates that of all inputs, fertilizer has the strongest impact on farmer yields and profits. The fertilizers used by farmers in the research area consist of chemical fertilizers such as urea and SP-36, along with a small amount of organic fertilizer (Sinaga, 2024). The effectiveness of proper fertilization will directly affect the growth and yield of chili plants, thus impacting total income (Setiawati & Saetarso, 2008). The regression model results show that all variables have a negative coefficient on income (Sinaga, 2024).

Chili seedling costs have a coefficient of -5.792, chili fertilizer costs -0.520, chili labor costs -0.265, and rice seedling costs -15.538. This means that each additional input from these variables actually results in a decrease in farmer income. This indicates inefficiency in the use of production inputs. This inefficiency can be caused by over-input, namely the use of seeds, fertilizer, or labor beyond the optimal crop needs (Yusmaningsih et al., 2022). Furthermore, low-quality seeds or farmers' lack of knowledge in input management are also contributing factors (Nugraheni & Tinaprilla, 2022).

High labor costs also contribute to production costs. A research by Alhaviz et al. (2021) found that in a rice-corn intercropping system, labor is the highest cost component, accounting for 33.88% of total costs. In the context of Kuta Usang Village, labor costs have not been commensurate with the increase in output, resulting in a negative coefficient on income (Sinaga, 2024). The socioeconomic conditions of farmers in the research area also influence farming efficiency. Most respondents had a basic education (elementary and junior high school), and the majority were of productive age (15–65 years) (Sinaga, 2024). Low levels of education can limit understanding of efficient cultivation technologies, leading to disproportionate input use (Creswell & Creswell, 2018). A farm feasibility analysis using the R/C ratio showed an average value of 1.6 (Sinaga, 2024).

This means that for every Rp1 of costs incurred, the farming business is declared financially viable (Yusmaningsih et al., 2022). However, this value is still lower than research by Saragih (2023), which found an R/C value of 10.09 for a chili and tomato intercropping system in Simalungun Regency. This means that, although feasible, the potential profit from farming in Kuta Usang Village is still not optimal. A research by Tuah et al. (2022) also found a R/C value of 1.80 in an intercropping system of cayenne pepper and coffee, indicating that horticultural farming combined with perennial crops can produce relatively more profitable results. In the context of Kuta Usang Village, combining chili peppers with crops such as coffee or tomatoes may be an alternative to increase efficiency and income.

Meanwhile, results from Nugroho et al. (2020) in Central Java showed that intercropping purple sweet potato and cauliflower on a 0.14-ha plot yielded a profit of IDR 8,942,138.62 and a B/C value of 1.87. This confirms that crop diversification and proper land management can significantly increase farmers' profits. In Klara Sinaga's research, most farmers owned more than 1 ha of land, which should offer significant potential for increased productivity, provided it is balanced with efficient input use (Sinaga, 2024).

Previous research also shows that intercropping can reduce the risk of pest and disease attacks. Setiawati and Saetarso (2008) noted that combining red chilies with tomatoes and cabbage can suppress pest populations. This aligns with the ecological conditions of Kuta Usang Village, which has a cool and humid climate, suitable for the growth of various horticultural crops (Sinaga, 2024). Therefore, an integrated approach between intercropping and integrated pest management (IPM) systems needs to be improved in this region.

The high coefficient of determination (86.7%) also indicates that input costs are a major factor in determining farmer income (Sinaga, 2024). However, 13.3% of other variables remain unexplained in the model, such as crop selling price, land quality, irrigation management, and government support.

Distribution and marketing issues are also external factors affecting farmer income. Damaged roads and difficult market access in Sidikalang lead to high logistics costs and uncompetitive agricultural product prices (Sinaga, 2024). This serves as a reminder that farming efficiency is determined not only by technical production factors but also by infrastructure and other supporting systems (BPS, 2024).

Furthermore, farmer capacity development through training, access to information, and technical assistance is essential. Many farmers do not yet understand agricultural analysis concepts such as the R/C ratio, BEP, and payback period, which can assist them in making production decisions (Acharya et al., 2020). Therefore, synergy between the government, agricultural extension workers, and higher education institutions such as Quality University Berastagi is essential to assist farmers in improving their financial literacy and business management skills.

From a sustainability perspective, intercropping offers significant opportunities for environmentally friendly agriculture. Red chili peppers and upland rice have different nutrient and water requirements, thus complementing each other in utilizing soil resources (Perdana, 2011). In the long term, this system can help restore soil fertility and reduce the excessive use of chemical pesticides (Nasution et al., 2022).

However, it is important to pay attention to the planting time and spacing between the two crops. If not managed properly, competition between the two crops can occur and actually reduce the yield of both (Lopulisa, 2004). In this research, the effect of plant spacing was analyzed using dummy variables in a regression model, and the results showed a significant impact on farmer income (Sinaga, 2024). This means that sound agronomic planning is essential to maximize profits.

The researchers also acknowledged limitations in this research. One of these was the lack of use of the Payback Period method in the financial feasibility analysis (Sinaga, 2024). This method is crucial for determining how quickly farmers can recoup their investment from farming. Future research should consider this method for a more comprehensive financial assessment.

Overall, Klara Sinaga's research provides an important contribution to understanding how an intercropping system of dryland rice and red chili peppers can be developed efficiently in hilly areas like Kuta Usang Village. Although various challenges remain, the results demonstrate that intercropping remains a viable and sustainable alternative agricultural strategy if managed properly and efficiently (Sinaga, 2024).

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

1. Household income of farmers in Kuta Usang Village, Pegagan Hilir District, using the intercropping method of dryland rice and red chili peppers is statistically influenced by the costs of rice seeds, chili seeds, chili fertilizer, and chili labor, respectively: -5.792, -0.520, -0.265, and -15.538.
2. The financial efficiency of the rice and chili farming business in Kuta Usang Village, Pegagan Hilir District, is considered feasible, with an average financial feasibility efficiency of 1.6.
3. Recommendations for dryland rice and red chili intercropping farmers in Kuta Usang Village
   Farmers intercropping dryland rice and red chili in Kuta Usang Village are advised to improve labor efficiency.
4. Recommendations for the Government
   The government is recommended to implement a production input subsidy policy for farmers who use government-recommended planting distances.

ADVANCED RESEARCH

This research analyzed rice income because it is not traded. Future researchers are expected to analyze the social aspects of dryland rice production as a non-commercial agricultural product.

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