

ANALYSIS OF RICE FARMING PERFORMANCE BASED ON VARIETIES IN RAINFED RICE FIELDS IN BATANG KUIS

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Received : 01 December 2023

Accepted : 25 December 2023

Revised : 05 December 2023

Published : 30 December 2023

Abstract

This study aims to evaluate the performance of rice farming based on differences in varieties used, namely national superior varieties, local superior varieties, and hybrids in rainfed rice fields. The research method used was a survey of rice farmers with a quantitative descriptive approach. The results showed that the highest productivity was obtained by the Super Bernas hybrid variety with an average production of 7,454 kg/ha/planting season, followed by the local variety Anak Daro at 6,746 kg/ha, and the national variety IR 42 at 6,417 kg/ha. The highest production costs were also found in the Super Bernas variety, but were offset by the highest net income of Rp6,809,118/ha. In terms of efficiency, the Super Bernas variety showed the highest RCR value of 1.36, which means it is more efficient than other varieties. Overall, hybrid varieties provide higher production results and income despite requiring higher production costs.

Keywords: rice farming, superior varieties, production, income, efficiency

INTRODUCTION

Rice is a strategic commodity in the agricultural sector, playing a crucial role in meeting the food needs of the Indonesian people. The government continues to strive to increase rice production through various programs, including providing production facilities and developing superior varieties. However, rice farming still faces various obstacles such as limited land, low productivity, and suboptimal use of production factors. According to Supriyati et al. (2005), population growth and land conversion are increasing pressure on food production. The use of superior varieties is one solution to increasing productivity. National, local, and hybrid superior varieties have different characteristics in terms of input requirements, productivity, and environmental resilience. These differences will impact production costs, harvest yields, and farmer income. Therefore, analyzing farm performance based on varieties is crucial to determine which varieties are more profitable and efficient. This study aims to analyze the production, costs, income, and efficiency of rice farming in rainfed lowland areas in Batang Kuis District.

RESEARCH METHODS

The study was conducted on November 22, 2024, using a survey method with a quantitative descriptive approach. The study location was determined purposively in Batang Kuis District, a rain-fed rice-producing area. The study sample consisted of 90 farmers cultivating superior national, local, and hybrid varieties. The sampling technique used was a multi-stage sampling method. The data collected included production, costs, and revenue. The analysis was conducted by calculating total revenue, production costs, net income, and farm efficiency using the Return Cost Ratio (RCR) indicator.

RESULTS AND DISCUSSION

1. Rice Production Based on Varieties

Variety	Average Production (Kg/Ha/MT)
IR 42	6,417
Daro's Child	6,746
Super Nutty	7,454

The data in the table on page 7 shows that the Super Bernas variety has the highest yield compared to other varieties. This is due to the characteristics of hybrid varieties, which have higher yield potential. According to Soekartawi (2002), farm productivity is influenced by seed quality and the use of production inputs. Superior varieties with high adaptability will produce more optimal production.

2. Farming Production Costs

Variety	Production Cost (Rp/Ha/MT)
IR 42	18,008,123
Daro's Child	18,884,606
Super Nutty	19,281,373

The Super Bernas variety has the highest production costs due to the greater use of inputs such as seeds, fertilizer, and labor. According to Hernanto (1992), production costs are greatly influenced by the intensity of factor use. The higher the input usage, the higher the costs.

3. Farming Income

Variety	Net Income (Rp/Ha/MT)
IR 42	4,450,050
Daro's Child	4,727,491
Super Nutty	6,809,118

The highest income is obtained from the Super Bernas variety because high production is able to cover high production costs. According to Soekartawi (2002), income is the difference between revenue and production costs. Therefore, increased production will directly impact income.

4. Farming Efficiency (RCR)

Variety	RCR
IR 42	1.31
Daro's Child	1.33
Super Nutty	1.36

The RCR values indicate that all three varieties are feasible to cultivate because they have values greater than 1. However, the Super Bernas variety has the highest efficiency. According to Hernanto (1992), an RCR value > 1 indicates that farming is profitable and economically efficient.

CONCLUSION

Based on the research results, it can be concluded that:

1. Rice farming production varies across varieties, with the Super Bernas hybrid variety producing the highest yield at 7,454 kg/ha/planting season, followed by the local Anak Daro variety at 6,746 kg/ha, and the national IR 42 variety at 6,417 kg/ha. This indicates that variety influences farming productivity.
2. The Super Bernas variety had the highest production costs, at Rp19,281,373/ha, due to the more intensive use of inputs such as seeds, fertilizer, pesticides, and labor. Meanwhile, the IR 42 variety had the lowest costs.

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3. The highest net income was obtained for the Super Bernas variety, at Rp6,809,118/ha, followed by the Anak Daro variety at Rp4,727,491/ha, and the IR 42 variety at Rp4,450,050/ha. This indicates that high production can offset higher production costs.
4. All rice farming varieties are considered viable and profitable, as indicated by RCR values > 1 , namely Super Bernas (1.36), Anak Daro (1.33), and IR 42 (1.31). However, the Super Bernas variety is the most economically efficient.
5. Hybrid varieties offer advantages in productivity and efficiency, although they incur higher production costs. Therefore, variety selection is a crucial factor in increasing farmer income.

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