Performance of New Superior Variety of Rice and Its Feasibility in Rainfed Rice Lowland of South Sumatra

Keragaan Varietas Unggul Baru Padi dan Kelayakannya di Sawah Tadah Hujan Sumatera Selatan

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ABSTRAK

Lahan tadah hujan memiliki potensi besar untuk menghasilkan beras di Provinsi Sumatera Selatan. Sebagai lahan yang terkategori marginal, budidaya padi di lahan tadah hujan perlu disertai dengan inovasi teknologi agar pemanfaatannya berkelanjutan. Kajian ini bertujuan untuk menganalisis keragaan pertanaman dan kelayakan usahatani dengan inovasi teknologi berupa penggunaan VUB dan budidayanya di lahan tadah hujan. Pengkajian dilakukan pada MH 2019/2020 di Desa Tugu Jaya Kecamaan Lempuing Kabupaten OKI. Kegiatan yang dilakukan dengan menerapkan inovasi pada demonstrasi plot (demplot) budidaya padi seluas 2 ha, menggunakan varietas Inpari 30 dan 43 dengan jarak tanam menggunakan sistem tanam jajar legowo 2:1, dibandingkan dengan pertanaman padi cara petani menggunakan IR 42 dengan sistem tanam tegel di luar demplot. Hasil kegiatan memperlihatkan bahwa hasil pengamatan keragaan tanaman saat satu hari menjelang panen menunjukkan tanaman tertinggi adalah padi IR 42 (109,1 cm), anakan terbanyak adalah pada Inpari 43 (19,7 anakan), malai terpanjang adalah pada IR 42 (25,1 cm) dan produksi GKP tertinggi pada Inpari 30 (6,8 ton/ha). Dalam hal kelayakan usaha, padi Inpari 30 dan 43 serta pembandingnya IR 42 layak ditanam di lahan tadah hujan dilihat dari produksi yang dihasilkan dan indikator finasialnya. Dari ketiga varietas tersebut, maka Inpari 30 pada MH 2019/2020 ini yang paling layak, dengan TIH beras = Rp. 3.983/kg; TIP beras = 1.568 kg/ha dan R/C = 2,39 serta MBCR 6,96.

Kata kunci: keragaan, kelayakan, sawah tadah hujan, varietas unggul baru padi

ABSTRACT

Rainfed lowland has great potential to produce rice in South Sumatra Province. Rice cultivation in such marginal lowland needs technological innovation for sustainable use. This study aimed to analyze the crop performance and farming feasibility of a New Superior Variety (VUB) in rainfed rice cultivation. The study was carried out on 2019/2020 in Tugu Jaya Village, Lempuing District, OKI Regency. It was implemented in a demonstration plot of rice cultivation covering 2 hectares, using Inpari 30 and 43 varieties. The plant spacing was in accordance with 2:1 "jajar legowo" planting system.

This was compared to the tile planting system outside the demonstration plot using IR 42 variety, which was planted by the local farmers. The results of observations of plants' performance one day before harvest showed that the tallest plant was IR 42 (109.1 cm), the most tillers were from Inpari 43 (19.7 tillers), the longest panicle was of IR 42 (25.1 cm) and the highest harvested crop grain production was from Inpari 30 (6.8 tons/ha). In terms of business feasibility, judging from the resulting production and financial indicators, all three varieties were suitable for planting in rainfed lowland. Furthermore, of the three varieties, Inpari 30 on MH 2019/2020 was the most feasible, with a break-even price (BEPr) of 3,983 IDR/kg; break-even production (BEP) of 1,568 kg per hectare; revenue cost ratio (R/C) of 2.39 and Marginal Benefit-Cost Ratio (MBCR) of 6.96.

INTRODUCTION

Although agriculture has become more efficient globally, competition for natural resources has intensified in recent decades, mainly due to population growth, industrial development, urbanization and climate change. Soil degradation and water scarcity are some of the most visible manifestations of this competition (FAO, 2017). Degradation of agricultural land has an impact of local people's livelihoods quality and the health of ecosystems. Soil degradation is an obstacle to achieving food security. Moreover, much of the additional land available is not suitable for agriculture. The use of this land for agriculture results in high ecological, social and economic costs (FAO, 2014).

One effort to increase food production is by exploring the productivity of rainfed rice field. It is one of the potential resources for food production growth. Rainfed lowland is large enough in South Sumatra and has the potential to be developed and increased in productivity. Currently, there are 96,885 hectares of rainfed rice field which is 12.5% of the existing rice field area (Central Bureau of Statistics (BPS), 2016). It is in the third place after swamp and tidal fields. Among seventeen regencies/cities in South Sumatra, Ogan Komering Ilir (OKI) has the largest area of rainfed rice fields. Rainfed rice lowland is a potential physical resource for rice plant development. It can be planted at least once a year with paddy (inundated land and stem plots) using rainwater as a source of irrigation. However, the average rice productivity is still low. One main obstacle is the dependency of water on rainfall. The rice field will dry in dry season. The potential for grain harvest of rainfed lowland ranges from 4.50 - 6.25 tons of harvested crop grain per hectare in rainy season and only ranges from 2 - 3.20 tons in dry season (Jonharnas & Sitindaon, 2017; Sari et al. 2017).

Rice cultivation in rainfed rice filed is high risked. Apart from the unpredictable possibility of water shortage due to rainwater supply, other problems, such as imbalance nutrient content, low fertility and soil pH, also cause rice productivity in rainfed rice field relatively low. On that basis, a new breakthrough is needed to optimally utilize the potential of available agricultural resources. There are several ways to overcome this problem, for example, the introduction of agricultural technology such as more tolerant varieties; planting adapted to the conditions of water availability based on the season; balanced fertilization and the use of organic matter.

Among the various applications of recommended technology to increase rice production, superior varieties are the fastest adopted by farmers. The quality seed is the first and most important requirement for grain production, which contributes about 30% to the increase in yield. The availability of high quality crops when they are needed, at affordable prices, plays an important role in grain production (Sahu et al. 2018). Seed is a critical input for

longterm sustained growth of agriculture A strong and vibrant seed system is essential for food security of the country and accelerating growth in agriculture (Chauhan et al., 2016). Enhancing seed and varietal replacement rates coupled with integrating natural resource management is one of the important approaches to bridge the gap between potential and realized yields (Chauhan et al., 2017).

Some of the characteristics of improved varieties that are considered by farmers to use them are age, plant height, productive tillers, resistance to pest and diseases, and yield (Purwanto et al., 2012). Rice cultivation in marginal land, such as the rainfed field needs technological innovation for a more sustainable use. The purpose of this study was to analyse crop performance and farming feasibility of a New Superior Variety (VUB) in rainfed rice cultivation.

MATERIALS AND METHODS

Procedure

The introduction of new superior variety was carried out at a 2 hectares demonstration plot in Tugu Jaya Village, Lempuing District, OKI Regency on MH 2019/2020. They were planted in early January 2020 and harvested in April 2020.

Two VUBs, Inpari 30 and Inpari 43, were used and were compared with IR 42, the variety commonly grown by farmers. The IR 42 variety was first released in 1980 and is still widely used by farmers today. The Inpari 30 variety was chosen based on the farmers demand, but it has not spread much since it was first released in 2012. It has been planted in this area before, while Inpari 43 released in 2016 was only introduced when this study took place and first planted in the demonstration plot. The farmers were involved in rice growing process and they were provided with the seeds. The two VUBs were planted using the 2:1 "jajar legowo" system, and it was compared with IR 42 planted with tile system (Table 1).

This research was conducted from January to May 2020, located at Tugu Jaya Village, Lempuing District, OKI Regency. The observed components of plant growth included plant height, number of tillers; and of yield included panicle length, amount of pithy unhulled rice and empty grains. The production of harvested dry unhulled rice was weighed from the entire yield of each plot with an area of 0.25 ha. The observed use of production facilities included type, amount of use, purchase price, and labour force.

Table 1. Innovation by farmers

Description	Innovation	Local Farmer Practices
Seed variety	VUB (inpari 30 and 40)	IR 42
Seed volume	18-20 kg/ha	
Land Preparation	Perfect Soil Cultivation	
Planting	2:1 Jajar Legowo Planting System	Tile Planting System (20 x 25 cm)
Fertilizer dosage per hectar	150 kg urea; 200 kg SP 36; 150 kg NPK; 320 kg organic fertilizer	
Fertilizing	Sowing (the nursery was given sufficient urea fertilizer; organic fertilizer was given during the second tillage or before planting; ½ dose urea and SP 36 were given 1 week after planting; NPK and the remaining urea were given 25 days after planting.	
Organic material	straw laid back evenly to paddy fields without burning	
Pest and disease control	IPM with selective pesticide	
Weed control	Using selective herbicides, post growth	
Harvest/post-harvest	Using combine harvester	
Post-harvest	Drying using a tarpaulin floor	

Data Analysis

Data were analysed descriptive-quantitatively by explaining the observed variables based on occurring conditions. Analysis of breakeven point of price and the breakeven point of each production was carried out todetermine the limit of selling price and the limit of amount must be produced that the farm did not suffer losses. The farming business expectation is that the resulting actual production is higher than the production breakeven point and the breakeven price must be lower than the actual selling price (Hendayana, 2016; Suratiyah, 2009).

$$TIH = \frac{Bp}{P}$$

$$TIP = \frac{Bp}{H}$$

In which:

BEPr	= Break-even price
C	= Cost of Production
P	= Production
BEP	= Break-even Production
Pr	= Price

The feasibility of farming business is calculated by comparing revenues with production costs (Revenue Cost ratio = R/C) (Hendayana, 2016; Suratiyah, 2009). If R/C> 1, the farming business is economically profitable; R/C = 1, the farm is economically at break-even point; and R/C <1, the farming business is economically experiencing a loss.

A new technology with relatively higher acceptance, requires a change in the use of production means and labor force. To assess the feasibility of technology use, a Marginal Benefit Cost Ratio (MBCR) benchmark can be used (Hendayana, 2016).

$$MBCR = \frac{B1 - B2}{C1 - C2}$$

In which:

MBCR	= Marginal Benefit Cost Ratio
B	= Benefit (revenue - cost of production)
C	= Cost (cost of production)
1	= new innovation
2	= comparator (previous tehnique)

Decision method:

MBCR> 1 (introduction of appropriate technology), MBCR <1 (introduction of unfeasible technology)

RESULTS AND DISCUSSIONS

Performance of Rice Planting and Production

Observation of performance was carried out twice, thirty days after planting and one day before harvest. At thirty days after planting, the tallest was Inpari 30 with 79.2 cm and the highest number of tillers was from Inpari 43 with 19.7 tillers. The comparison variety, IR 42, was observed at the age of 30 DAS, it was shown that its height was 77 cm and was with 14.4 tillers. There was a change just before harvest in which the tallest plant was IR 42, 109.1 cm, while the highest number of tillers was still from Inpari 43 with 19.7 tillers (Table 2).

Plant height is strongly influenced by genetic factors of each variety and also by the sensitivity and the adaptability to the environment, for example the availability of nutrients in the soil. Nevertheless, the plant's height is not a guarantee of its productivity. Likewise, the other characters also have their influence toward productivity, such as the number of tillers, panicle length, number of filled grains and grain weight. However, genetically of each variety has the potential for production as in the description of the variety, which of course is supported by the environment in which it grows. The number of tillers from Inpari 30 and 43 remained relatively unchanged between one month after planting until before harvest, while for IR 42 there was still an increase. The plant age of Inpari 30 and 43 varieties was 111 days from seeding, while

the age of IR 42 was longer, between 135 - 145 days from seeding. The interval between the first observation (30 days after planting) and the second observation at harvest time for Inpari 30 and 43 varieties was ± 64 days. As for the IR 42 variety, the first observations to the pre-harvest observations were longer, approximately 90 days. In the interval of ± 90 days, the number of tillers in the IR 42 variety continued to increase, while in Inpari 30 and 43 it did not increase during their observation interval.

Observations were also made on yield components (Table 3). The results of observations on panicle length, number of pithy and empty grains carried out one day before harvest showed that IR 42 had the longest panicle at 25.1 cm, Inpari 43 had the highest number of productive tillers with 19.7 tillers, inpari 43 had the the highest number of pithy grains at 150.5 grains, and Inpari 30 had the highest number of empty grains at 29.8 grains. However, of the three varieties, the highest production was from Inpari 30 at 6.8 tons/ha. This was consistent with the potential yield based on the description of the variety.

In accordance to the description, Inpari 30 rice was 111 days after sowing, with

moderate shedding and resting. The grain was clean yellow and the weight of 1000 grains was 27 g, with a fluffier rice texture. The average test results were 7.2 tons/ha with a potential yield of 9.6 tons/ha. It is suitable for planting in irrigated lowland rice fields to an altitude of 400 m above sea level (asl), and it can be planted in flood-prone areas for up to 15 days in the vegetative phase.

Physiological maturity of Inpari 43 was 111 days after seeding, with moderate shedding and resistant to falling. The weight of 1000 grains was ± 23.74 g, with a fluffier rice texture. The average test results were 6.96 tons/ha with a potential yield of 9.02 tons/ha. It can be planted in less fertile rice fields, with maximum altitude of 600 m above sea level. It can also be planted in rice fields that are endemic to bacterial leaf blight, brown planthopper and blast disease (Sasmita et al., 2019).

As for comparison, IR 42, the harvest age can reach 135-145 days from seeding, with moderate shedding, resistance to falling and grainy texture. The weight of 1000 grains of grain was 23 g and the average test results were 5 tons/ha with a potential yield of 7 tons/ha. It is recommended to be planted in irrigated land; and low and tidal swamps.

Table 2. Plant height and number of tillers of several rice varieties in Tugu Jaya village Lempuing district OKI regency, MH 2019/2020

Variety	30 DAS		1 Day Before Harvest	
	Height (cm)	Number of Tillers (tiller)	Height (Cm)	Number of Productive Tillers (tiller)
Inpari 30	79.2 (2.65)	17.4 (1.89)	106.1 (3.69)	17.7 (2.90)
Inpari 43	76.4 (3.50)	19.7 (2.49)	101.4 (2.59)	19.7 (2.49)
IR 42 (comparison)	77.0 (2.94)	14.4 (3.02)	109.1 (4.97)	16.8 (2.30)

Note: Numbers in parentheses are standard deviation (standard deviation)

Table 3. Components of yields of several rice varieties in Tugu Jaya village, Lempuing district, OKI regency, MH 2019/2020

Variety	Panicle Length (cm)	Number of Pithy Grain (grain)	Number of Empty Grain (grain)	Production (tons/ha)
Inpari 30	24.4 (1.43)	142.6 (10.91)	29.8 (4.89)	6.80
Inpari 43	25.0 (1.15)	150.5 (15.23)	29.6 (3.62)	6.48
IR 42 (comparison)	25.1 (0.87)	132.4 (6.22)	26.3 (5.33)	4.80

Note: Numbers in parentheses are standard deviation (standard deviation)

High yield does not guarantee that improved varieties are easily adopted by farmers. The results of the study by Syahri and Somantri (2016) show that the Inpari 12 variety, which has high productivity and is early in life, is less favored by farmers because of its grainy texture. Sudarwati et al. (2014) argued, in introducing improved varieties to farmers, it is necessary to test the preferences of the varieties that are introduced.

The rice variety socialization strategy aims to shorten the gap between the development of superior varieties and the widespread adoption of farmers practiced in India (Mishra et al., 2018). This approach helps change the traditional mindset of male-dominated societies and create a healthy social climate that encourages rural economic growth. Access to technology and productive resources by women farmers has increased rapidly in the study area.

Potential Organic Materials from Rice Straw

The International Community in the field of rice research classifies rainfed rice fields as a high risk ecosystem (high risk environment), because it is threatened by drought, flooding, or saltiness. Anticipation of risks is pursued through plant breeding and cultivation techniques and management of rice plant nutrients (Lailiyah, et al., 2017). To increase soil fertility, it is necessary to provide balanced fertilizer treatment between N, P and K nutrients evenly, regulation of water supply so as to increase the potential pH, the availability of N, P and K nutrients in rainfed fields to be suitable for rice plants. (Ardy et al, 2014).

The results of research by Sukristiyonubowo et al. 2019 and Kasno et al. (2016) several rainfed rice fields showed that the rainfed lowland soils in Jakenan, Pati had the lowest levels of N, P, K and organic matter. The limiting factors for the growth and yield of rice in Jakenan, in Pati are C-organic, N, P, and K nutrients, Boyolali has limiting factors for C-organic, N and P nutrients, while the limiting factors

in Cianjur are N and K nutrients. Soil organic matter is the soil fraction that contains material derived from plant and animal remains at various levels of decomposition of plant roots, tissues and soil microorganisms (Suyamto, 2017).

Low organic material content in soil causes soil particles to break easily by rainfall and to be carried away by surface runoff as erosion. In addition to its ability to improve physical, chemical and biological properties of the paddy field soil, the return of nutrients to the soil is absolutely necessary because most soil nutrients are transported at harvest time. The neglect of returning organic matter to the soil and the intensive use of chemical fertilizers can cause the decline of physical and chemical quality of the soil. Therefore, it is necessary to do proper land management to ensure sustainable land use, one of which is to maintain or increase soil fertility using organic material.

The farmers, in their rice cultivation, use organic factory fertilizers as much as 320 kg/ha. In addition, they currently use a combine harvester allowing even distribution of rice straw on the surface of the rice fields. Before the combine harvester, harvesting was carried out using a thresher machine by a team of harvesters. This caused uneven return of rice straw.

The rice was threshed only at certain places and the grain was transported to thresher location. The piles of straw were usually burned prior to re-cultivation. This caused unequal return of organic material from rice straw. Currently, the government has banned the burning of straw to reduce the impact of smoke on both health and air transportation. Therefore, not burning rice straw ensures no loss of carbon elements as the result of the burning.

Rice straw is a waste that can be used as an addition to organic matter in paddy soil. The application of rice straw to the inundated soil has the same effect as of urea on N uptake and efficiency of N fertilizer utilization. The provision of rice straw and its compost can increase the activity of

nitrogenase enzyme in fixating N2, which then becomes a source of N usable for rice plants at generative growth stages (Indriyati et al., 2007). The availability of rice straw is very abundant during the harvest season. If the average grain yield is 5 tons/ha, the obtained straw is ± 7.5 tons, assuming the ratio of grain to straw is 2: 3. The straw contains complete macro and micro nutrients. This waste contains elements of C (30-40%), N (1.5%) P2O5 (0.3%), K2O (2%) and SiO2 (0.3%). It also contains micro nutrients in the form of Cu, Zn, Mn, Fe, Cl, Mo (Wahyuni & Asngad, 2017).

In this study, the yield of dry unhulled rice of each variety was quite large, i.e., 6.8 tons/ha Inpari 30; 6.48 tons/ha Inpari 43; and 4.8 tons/ha IR 42. Based on these results, the potential for straw produced was also large, as much as 10.2 tons/ha for Inpari 30; 9.72 tons/ha for Inpari 43; and 7.2 tons/ha of IR 42.

With the use of the combine harvester, it is possible to spread the straw evenly over the surface of the rice fields. The return of rice straw can be used as a determinant of how much inorganic fertilizers needed by referring to the soil test equipment or fertilization guidelines issued by the Ministry of Agriculture. The calculation was done up to sub-district level (Regulation of the Minister of Agriculture Number 40/Permentan/OT.140/04/2007 dated 11 April 2007 concerning Recommendations for N, P, and K fertilization in location-specific rice field).

Rice Farming Business Feasibility Analysis

Realizing the limited supply of quality seeds, currently farmers in Tugu Jaya Village try to save the seeds by applying only one to two seeds per planting hole. Unlike five years ago when they still used two to three seeds or even four seeds per planting hole. Farmers' confidence in growth power affects the number of seeds used. Pest and disease control of rice plants in the demonstration plot was carried out with integrated control in which the selection of chemicals was as the final alternative and they were selected based on the type of disturbing organisms with doses suggested on the packaging. Weed control used selective herbicides so that their effects on rice plants were avoided or reduced and were particularly selected for the growing weeds.

The amount of factory-made fertilizers for these three varieties per hectare was identical, 150 kg urea, 200 kg SP 36, 150 kg NPK and 320 kg organic fertilizer. Likewise, the use of pesticides between the three varieties was also the identical. The difference in agricultural production facilities uses was the seeds, in which IR 42 was 20 kg/ha, while Inpari 30 and Inpari 43 used the same amount of 18 kg/ha.

For material and equipment cost component, the highest expenditure was fertilizer purchase and the lowest was sack purchase. In terms of labor costs, the highest component was spent on milling and the lowest is on weed spraying. All labor costs were calculated as wages.

In rice cultivation in Tugujaya Village, the large proportion of labor costs was from production costs of implementing innovations in rice cultivation with Inpari 30 of 80.10% and Inpari 43 of 83.55%. While for IR 42 variety, it was 74.57%. The results of the study conducted by Hutapea and Waluyo (2018) shows that with the application of integrated plant and resource management concepts in rainfed rice fields of Raksa Jiwa Village, Semidang Aji District, OKU Regency on MH 2017/2018 which also implements the legowo planting system, the expenditure for labor costs was 86.21% of production costs.

In farming business, it is expected that the actual production obtained is higher than break-even production (BEP) and the selling price is higher than break-even price (BEPr). Both differences determine the revenue, which in turn affect the amount of income. The higher the gap between the actual production with BEP and the selling price with the BEPr, the greater the revenue.

Of the three varieties, Inpari 30 had the largest difference between the actual product and BEP with 2,172 kg/ha. whereas Inpari 43 and IR 42 were 1,698 kg/ha and 1,230 kg/ha respectively. At the rice selling price level of 9,500 IDR/kg, Inpari 30 had also the largest difference between the selling price and BEPr with 5,517 IDR/kg. While Inpari 43 and IR 42 were RP. 4,525/kg and 4,426 IDR/kg respectively. In the case of this study, although the production of Inpari 43 is lower than that of Inpari 30, the production cost of Inpari 43 was higher. This is because the labor cost of Inpari 43 was higher. Inpari 43 fell down just before the grain maturity due to heavy rain and strong winds so as it was necessary to tie the rice plants in several clumps which costed 3,120,000 IDR/ha. This was not incurred on the Inpari 30 and IR 42.

The results show that these three varieties were feasible for cultivation in rainfed rice fields indicated by their financial indicators (Table 4). However, Inpari 30 variety was the most viable of the three with production cost of 14,896,000 IDR/ha and net income of 20,634,000 IDR/ha. The R/C of 2.39 indicated that each production cost expenditure of 1,000 IDR would result in an income of 2,390 IDR.

The MBCR of 6.96 indicated that each additional production cost margin for Inpari 30 rice cultivation compared to IR 42 of 1,000 IDR would provide an additional income margin of 6,960 IDR.

Of the three varieties, at the time of harvest (1 day before harvest), IR 42 was the tallest at 109.1 cm, Inpari 43 had the highest number of productive tillers with 19.7 tillers, IR 42 had longest panicle at 25.1 cm, Inpari 43 had the highest number of pithy grains with 150.5 grains, and Inpari 30 had the highest number of empty unhulled rice with 29.8 grains. However, of these varieties, Inpari 30 had the highest production at 6.8 tons/ha. At Rp 9,500/kg selling price, the BEPr for Inpari 30, Inpari 43 and IR 42 varieties were 3,983 IDR/kg; 4,975 IDR/kg and 5,074 IDR/kg respectively. Inpari 30 had the largest difference between actual production and BEP, which was 2,172 kg/ha. While for Inpari 43 and IR 42, it was 1,698 kg/ha and 1,230 kg/ha respectively.

Several other VUBs should also be assessed for their feasibility in rainfed rice field. Although they are produced for irrigated rice fields, some of them can also adapt to rainfed fields.

Table 4. Costs, production, income and efficiency of rice farming in Tugu Jaya village, Lempuing district, OKI regency, MH 2019/2020

Description	Inpari 30	Inpari 43	IR 42
Material cost (IDR/ha)	2,963,000	2,915,000	2,928,000
Labor cost (IDR/ha)	11,933,000	14,815,800	10,468,000
Production caost total (IDR/ha)	14,896,000	17,730,800	13,396,000
harvested crop grain production (kg)	6,800	6,480	4,800
Production (rice conversion) (kg)	3,740	3,564	2,640
Income (IDR/ha)	35,530,000	33,858,000	25,080,000
Revenue (IDR/ha)	20,634,000	16,127,200	11,684,000
BEPr (IDR/kg)	3,983	4,975	5,074
BEP (kg/ha)	1,568	1,866	1,410
R/C	2.39	1.91	1.87
MBCR	6.96	2.41	-

CONCLUSION

The three varieties were suitable for planting in rainfed rice field in OKI Regency. Inpari 30 variety was the most feasible compared to the other varieties, with a production cost of 14,896,000 IDR/ha, a net income of 20,634,000 IDR/ha, R/C of 2.39 and MBCR of 6.96.

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