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Recommendations for the Development of Coffee Plantations in Rejang Lebong Regency to Improve the Quality and Quantity of Production Results

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A B S T R A C T

Rejang Lebong Regency in Bengkulu Province, Indonesia is known for its extensive coffee plantations. The selection of robusta coffee varieties suited to highland areas is crucial. Fertile soil and cool climate determine appropriate varieties. Coffee farming is important economically and culturally. Care of plants through fertilizing, pest control and pruning enhances production and fruit quality. Timely harvest selectively picks ripe fruit. Post-harvest processing, whether dry or wet, maintains quality. Environmental sustainability through polyculture adds farmer value. Careful planning and consistency optimizes Rejang Lebong's coffee production and achieves maximum results sustainably. This study surveyed coffee farmers in Karang Jaya Village, Rejang Lebong Regency from 2022-2024 using observation, interviews and secondary data to comprehensively examine post-harvest management. Descriptive analysis identified characteristics of the coffee farming system. Recommendations formulated alternatives strategies based on strengths, weaknesses and external opportunities and threats. Coffee cultivation in Rejang Lebong typically involves land clearing, seed selection, planting, maintenance and harvesting. Recommendations to boost production quality and quantity: develop organic farming with local genotypes, use local genotypes to minimize pests and diseases, construct terraces in plantations, provide appropriate shade, and improve systems for highland coffee plants

INTRODUCTION

Rejang Lebong Regency, located in Bengkulu Province, Indonesia, is renowned for its extensive coffee plantations (Suhendra et al., 2012). Geographically, this regency provides favorable conditions for coffee growth, especially robusta varieties which are well-suited for cultivation in highland areas (Sakiroh et al., 2021). The selection of coffee varieties that match the climate and soil conditions in Rejang Lebong Regency is crucial. Robusta coffee varieties, typically better suited for cultivation in highland areas, are often the preferred choice for farmers there (Hulupi, 2012). Fertile soil conditions and a cool climate are important factors in determining the appropriate varieties for cultivation.

Coffee is a vital agricultural commodity globally, serving as both a beverage and an economic and cultural aspect (Afrizon et al., 2020). Indonesia, as one of the world's largest coffee producers, makes a significant contribution to the global coffee market. One of the renowned coffee-producing regions in Indonesia is Bengkulu Province, with its suitable climate and soil conditions for coffee growth, particularly robusta coffee. Rejang Lebong Regency in Bengkulu Province is distinguished as a notable coffee-producing area known for its quality. Coffee from this region is often recognized for its distinctive taste and aroma, enhancing the province's reputation as a producer of high-quality coffee. The coffee production in Bengkulu Province not only plays a role in the local economy but also makes a significant contribution to the global coffee market, enriching the varieties of flavors and tastes offered.

The distribution of coffee plants in Bengkulu encompasses various regions, ranging from mountain slopes to lowlands. Areas like Curup, Kepahiang, and Argamakmur are central to coffee production in this province (Hulupi, 2012). Coffee plants are scattered across agricultural lands owned by local farmers, both around settlements and in remote rural areas. Factors such as a cool climate, varied elevations, and fertile soil determine the distribution of coffee in Rejang Lebong Regency. Coffee cultivation in Rejang Lebong Regency is a significant activity in the agricultural sector. Rejang Lebong Regency is located in Bengkulu Province, Indonesia, known as one of the regions producing fairly good quality coffee. To optimize the coffee cultivation process for maximizing production, several important steps must be considered. Taking care of coffee plants is a crucial stage in the cultivation process (Padjung et al., 2021). Proper care involves regular fertilization, pest and disease control, and appropriate pruning of plants (Bongkang, 2021). Providing sufficient nutrients according to the plant's needs will help enhance the production and quality of the coffee fruits produced.

When coffee plants begin to bear fruit, the harvesting process must be carried out carefully and in a timely manner. Ripe coffee fruits should be selectively picked to ensure that only high-quality fruits are harvested. After harvesting, the coffee fruits are then processed using appropriate processing methods, whether it be dry or wet methods, depending on preferences and local conditions. Environmental sustainability must also be a primary concern in the coffee cultivation process. Sustainable farming practices should be implemented to maintain ecosystem balance and prevent environmental degradation that

could affect coffee production in the future. Therefore, the farming system commonly adopted by farmers is polyculture, where many additional crops are grown alongside coffee. Utilizing other crops in coffee plantations can add value for farmers (Windari et al., 2018).

The coffee cultivation process in Rejang Lebong Regency requires careful planning and implementation, as well as consistency in applying good farming practices. By considering these factors, it is hoped that coffee production in Rejang Lebong Regency can be optimized to achieve maximum results. The aim of this research is to provide recommendations for efforts to maximize coffee production through appropriate and sustainable approaches. Rejang Lebong Regency is renowned as one of the best coffee-producing areas in Indonesia, and with the right recommendations, the main goal is to enhance the quality and quantity of coffee production. These recommendations encompass various aspects, from selecting coffee genotype suitable for the soil and climate conditions in the region, efficient and sustainable crop management, to the implementation of organic farming practices to preserve the environment. Additionally, the recommendations also include optimal post-harvest techniques and coffee processing to maintain the quality of coffee beans until the distribution stage. By consistently implementing these recommendations, it is hoped that a sustainable coffee cultivation system can be created, increasing the income of coffee farmers, and preserving environmental sustainability in Rejang Lebong Regency.

LITERATURE REVIEW

The development of coffee plantations in Rejang Lebong Regency is a crucial step in enhancing the productivity and quality of coffee yields. One of the key factors influencing productivity and quality is the use of superior plant varieties (Erliadi, 2017). The utilization of superior coffee varieties such as Arabica, Robusta, and hybrid varieties yields two to three times higher output. Moreover, superior varieties tend to produce premium-quality coffee, which commands higher prices in the market (Dani et al., 2013). Therefore, replacing old coffee varieties with superior ones is essential in improving the productivity and quality of coffee in Rejang Lebong. Integrated management of coffee plants also significantly impacts the growth and productivity of the plants (Ansiska et al., 2021). Cultivation systems that implement timely and appropriate fertilization practices, environmentally friendly pest control, and regular plant maintenance can enhance soil quality and overall plant growth. By considering these aspects, farmers can ensure that coffee plants grow optimally and produce high-quality coffee beans.

The development of post-harvest processing technology is also crucial in enhancing the quality standards and competitiveness of coffee products in the market (Windari et al., 2018). Technologies for drying, milling, bean selection, and proper packaging can ensure that the produced coffee meets high-quality standards. By implementing appropriate post-harvest processing technology, farmers can ensure that the coffee produced possesses distinctive taste and aroma, as well as well-maintained quality. Overall, the development of varieties,

cultivation, and post-harvest processing are essential aspects in improving the productivity and quality of coffee in Rejang Lebong. By considering these factors, it is hoped that coffee plantations in this region can become more efficient and sustainable, providing maximum benefits to farmers and the local community. Thus, these strategic steps can help elevate the potential of Rejang Lebong's coffee plantations to a higher level, both in terms of productivity and the quality of the resulting yields.

METHODOLOGY

This research was conducted in Curup District, specifically in Karang Jaya Village, Rejang Lebong Regency, from February to 2024. A survey method was used, involving the collection of primary and secondary data. Primary data were obtained through observation, in-depth and structured interviews, while secondary data included supportive research data. The snowball technique was employed in data collection, with participants selected based on random sampling methods. With this approach, researchers could gather comprehensive information and gain broad perspectives in examining post-harvest horticulture management (Ansiska et al., 2021).

Data analysis was conducted based on the needs of each research step. Firstly, the characteristics of the coffee plantation farming system practiced by the community in Karang Jaya, Rejang Lebong Regency, were identified using descriptive analysis. Field observations were presented in the form of descriptive narratives. Secondly, recommendations for managing coffee plantations in Rejang Lebong Regency's community were determined by formulating alternative strategies based on the first objective of this research. Thus, researchers could conclude internal factors such as strengths and weaknesses, as well as external factors such as opportunities and threats in the coffee plantation farming system in the Karang Jaya community.

RESULTS AND DISCUSSION

1. Coffee Cultivation System

Farmers in Rejang Lebong implement polyculture and shifting cultivation as strategies to enhance productivity and agricultural sustainability. In the polyculture system, they cultivate various types of crops simultaneously in the same land. This helps increase crop diversity, maximize resource utilization, and reduce the risk of crop failure due to pest disturbances or extreme weather conditions. Additionally, with shifting cultivation practices, farmers relocate their planting locations from time to time. Traditional farmers often clear land in highland areas through conventional methods, involving the cutting down of trees in forests without considering more sustainable processes or their long-term impacts. This process commonly occurs due to a lack of knowledge about sustainable farming practices and limited access to the necessary technology and resources. When traditional farmers decide to open new land, they typically choose forest areas with dense vegetation and fertile soil to convert into new agricultural land. They then begin by felling large trees using axes, saws, or even fire to clear the land. This initial step is often taken without conducting a comprehensive evaluation of the forest ecosystem and the soil that will be

affected. Farmers may not understand the importance of maintaining biodiversity and ecosystem balance in the process of opening new land. They tend to only focus on short-term goals, such as obtaining sufficient land for cultivation and getting agricultural yields quickly.

After tree felling is done, the next step is to clear the area of remaining plants and other organic materials. This is often done by burning, which can result in significant environmental damage such as soil erosion, decreased air quality due to smoke, and nutrient loss in the soil. Additionally, forest burning can threaten wildlife habitats and increase the risk of larger forest fires. Once the area is cleared, traditional farmers then plant main crops such as rice, corn, or coffee, depending on soil conditions and local preferences. These crops are often planted in monoculture, without considering the importance of crop rotation or crop diversification to enhance productivity and land sustainability. Lack of knowledge about sustainable farming practices also means that farmers may not realize the importance of proper soil management, such as using mulch or organic fertilizers, to maintain soil fertility and reduce erosion. Additionally, due to limited access to modern technology and resources, traditional farmers tend to rely on more primitive and less efficient farming methods. They may not have access to high-quality seeds, modern farming tools, or information about innovative farming practices. This can hinder the potential growth and productivity of their agriculture in the long term.

The impacts of these conventional land-clearing practices can be highly detrimental, both to the environment and to local communities. Uncontrolled deforestation can lead to loss of wildlife habitats, decreased water and air quality, and severe soil damage. Additionally, the decline in soil quality and agricultural productivity can threaten the livelihoods of farmers and cause economic instability in the region. In a broader context, these conventional land-clearing practices also contribute to global climate change through the release of greenhouse gases from deforestation and forest burning. Therefore, it is crucial for traditional farmers to gain access to the knowledge and resources needed to adopt more sustainable and environmentally friendly farming practices. This may include training on organic farming techniques, sustainable soil management, and the use of modern agricultural technology that can enhance farming efficiency and productivity. Thus, farmers can reduce the negative impacts of land clearing and produce more sustainable and beneficial agricultural yields for the environment and the community as a whole. The agricultural cultivation process in Rejang Lebong generally follows the following stages:

a. Land Clearing

The opening of coffee farming land in Rejang Lebong is often carried out through a practice called "gitong royong," a collaborative effort where the local community gathers together to help open the land collectively. The process begins with the selection of the forest area to be cleared, after which the community of farmers gathers to start clearing the land. They use simple tools such as axes, hoes, or saws to fell trees and clear the forested area. During this process, farmers assist each other and share tasks to expedite the progress of the

work. The gitong royong practice not only helps reduce the workload for each farmer but also strengthens solidarity and unity among community members. Additionally, this method allows traditional knowledge and skills in land clearing to be preserved and passed down from generation to generation. By involving the entire community in the land clearing process, the gitong royong practice supports environmental sustainability and promotes social justice among local farmers.

b. Seedling Selection

The selection of coffee plant seedlings is often done by taking suckers or shoots from coffee plants growing beneath mature coffee trees. This process utilizes the presence of parent coffee plants that have been tested and well adapted to local environmental conditions. The chosen suckers usually come from healthy, productive coffee trees with desirable characteristics, such as disease resistance or good taste quality. Farmers observe and select strong and high-quality suckers, considering good growth and a healthy root system. Additionally, selecting suckers from coffee plants growing under mature trees also helps maintain genetic diversity and ecosystem balance in coffee plantations. By choosing seedlings from natural and proven sources, farmers can increase the chances of success for new coffee plants and support overall sustainability in coffee farming.

c. Planting

Coffee planting is often done by simply pushing soil dibbers, rather than using a hoe. This process involves opening planting holes using a dibber, a simple tool made of iron or wood with a sharp end. Farmers use the dibber to create planting holes in predetermined locations. These holes are typically spaced at specific intervals according to the desired planting pattern. After the planting holes are made, coffee seedlings are then planted into them. The use of soil dibbers allows for more efficient and rapid planting, as this tool can easily penetrate slightly hardened soil without requiring excessive force. Additionally, by only pushing soil dibbers, the soil around the planting holes remains intact, helping to preserve soil structure and nutrient availability for the newly planted coffee plants. This method also reduces soil damage and the risk of erosion, contributing to environmental sustainability in coffee plantations.

d. Maintenance

Coffee plant maintenance is typically carried out in the following stages:

• Weeding

Weeding of coffee plants is an essential process in coffee cultivation involving the removal of weeds or other wild plants growing around coffee plants. This process is done manually using hands or tools such as hoes or sickles. Farmers weed periodically to maintain the cleanliness and health of coffee plants. Weeds left to grow can compete with coffee plants for water, nutrients, and sunlight, thus reducing productivity and harvest quality. Additionally, weeds can also serve as breeding grounds for pests and diseases that can harm coffee plants. By weeding regularly, farmers can control weed growth and minimize competition between coffee plants and weeds. This helps maintain cleanliness in

the coffee plantation, increase the availability of resources for coffee plants, and optimize the production of healthy and quality coffee.

• Orthotropic Shoot Pruning

Orthotropic shoot pruning is an important technique in coffee plant cultivation aimed at controlling the growth of main shoots or orthotropic shoots. This process involves carefully and selectively cutting the main shoots that grow vertically upwards. Pruning is usually done on young or newly planted coffee plants. The main purpose of orthotropic shoot pruning is to stimulate the growth of lateral shoots or plagiotropic shoots, which grow sideways. Lateral shoots have the ability to produce more and evenly distributed branches, which in turn can increase overall coffee fruit production. Additionally, orthotropic shoot pruning also helps in controlling the height of coffee plants, improving soil aeration, and facilitating plant care. By pruning regularly, farmers can maximize the potential growth of coffee plants and consistently produce better harvests.

• Water Shoot Pruning

Water shoot pruning is an important technique in coffee plant cultivation aimed at controlling the growth of shoots that grow downward or towards the ground. This process involves cutting the shoots growing at the bottom of the coffee plant, especially on the main stem or excessively low branches. Water shoots can disrupt air circulation among coffee plants and increase the risk of pest and disease infestation due to high humidity. Additionally, water shoots can also divert resources that should be allocated to more productive parts of the plant, such as higher branches. By regularly pruning water shoots, farmers can improve air circulation in the coffee plantation, reduce the risk of diseases and pests, and allocate limited resources more efficiently. This, in turn, can support healthy growth and optimal productivity of coffee plants.

• Pest and Disease Control

Pest and disease control are essential aspects of coffee plant cultivation to ensure plant health and productivity. This process involves various preventive and curative measures to reduce populations of pests and diseases that can harm coffee plants. Preventive measures include practices such as maintaining garden cleanliness, routinely monitoring plant conditions, and implementing crop rotation. Meanwhile, curative measures involve the selective use of pesticides and fungicides according to the type of pests and diseases present. Additionally, farmers can also apply biological control methods or use biological agents to naturally control pest and disease populations in coffee plants. It's important to pay attention to the correct dosage and timing of application to avoid damaging the ecosystem and the health of coffee plants themselves. With effective pest and disease control, farmers can minimize harvest losses and ensure the sustainability of coffee farming endeavors.

• Fertilization

Fertilization is a crucial process in coffee plant cultivation involving the application of additional nutrients in the form of fertilizers to the plants. Fertilizers provide essential nutrients such as nitrogen (N), phosphorus (P), and potassium (K) needed for the growth and development of healthy coffee plants. Proper fertilization can enhance the quality and productivity of plants, as well as

improve soil fertility conditions. The selection of fertilizer types and doses should be tailored to the needs of coffee plants, which can vary depending on soil type, climatic conditions, and plant growth stage. Fertilization is typically done periodically during the plant growth cycle, by applying fertilizers separately or in mixtures. Additionally, farmers may consider using organic fertilizers to enhance soil quality and minimize negative environmental impacts. With proper fertilization, coffee plants can grow optimally and produce high-quality harvests.
e. Harvesting

Rainbow or racut harvesting methods in the Rejang Lebong region are often considered suboptimal because the harvested coffee beans have not reached optimal physiological maturity. In the rainbow harvesting method, coffee cherries are picked gradually, starting from bright red cherries to those that are yellow or greenish-gray. Meanwhile, in the racut method, all coffee cherries are harvested simultaneously regardless of their level of maturity. Both methods tend to produce a mixture of physiologically mature and immature cherries, which can affect the quality and flavor of the coffee produced. Physiologically immature coffee cherries tend to yield lower-quality and less flavorful coffee beans, which, in turn, can affect the selling price and reputation of the coffee produced by farmers. Therefore, alternative selective harvesting methods should be considered to improve the quality of harvests and support the sustainability of the coffee industry in Rejang Lebong. Since this harvesting stage is considered more urgent for farmers' needs.

2. Recommendations for the Development of Coffee Cultivation

Land management recommendations for coffee plantations in the community of Karang Jaya, Rejang Lebong Regency, should focus on improving the quality and quantity of coffee plantation yields. These recommendations consider the conditions of coffee plantation management in the Karang Jaya community, which consist of internal factors (strengths and weaknesses) as well as external factors (opportunities and threats). Based on observations of the coffee plantation cultivation process in Karang Jaya, data was collected from respondents and relevant stakeholders regarding the management of community coffee plantations in Karang Jaya, Rejang Lebong. From the results of this data collection, it is recommended that the Karang Jaya community increase investment in modern agricultural technology and practices, improve infrastructure and market access, and enhance collaboration between farmers and relevant parties to support the sustainable development of the coffee industry in the area.

Table 1. Internal Factor Analysis of Rejang Lebong Regency Coffee Plantations

Strength				
No	**Statement**	**Weight**	**Rating**	**Score**
1	The environmental conditions are very suitable for the needs of coffee plants	0.1	3	0.3
2	Farmers' optimism in improving the standard of living of coffee plantations	0.15	3	0.45
3	The agricultural tradition is still very strong	0.17	3	0.51
4	There are local genotype such as the Sintaro 1 genotype	0.15	2	0.3
5	Topographic conditions are very supportive	0.06	3	0.18
Weakness				
No	**Statement**	**Weight**	**Rating**	**Score**
1	Lack of productivity of coffee plants	0.1	3	0.3
2	Management is still very traditional	0.08	3	0.24
3	Cultivation technology is still traditional	0.05	3	0.15
4	Poor selection of planting material	0.02	2	0.04
5	Farmers' knowledge is still very minimal	0.02	3	0.06
6	Accessibility is not yet optimal	0.05	2	0.1
7	Insufficient harvesting power	0.05	2	0.1

Table 2. Analysis of Plantation External Factors

Opportunity				
No	**Statement**	**Weight**	**Rating**	**Score**
1	The demand for coffee is increasing due to the power of coffee consumption	0.09	2	0.18
2	Government training program	0.08	2	0.16
3	Diversification of processed coffee products	0.05	3	0.15
4	Coffee plantations as agrotourism	0.09	2	0.18
Threat				
No	**Statement**	**Weight**	**Rating**	**Score**
1	The productivity of other regions is higher	0.1	3	0.3
2	Global climate change	0.2	3	0.6
3	Pests	0.2	3	0.6
4	Fluctuating coffee prices	0.1	3	0.3
5	The demand for quality coffee continues to increase	0.09	2	0.18

After weighting and calculating the internal and external factors of the coffee plantations in Rejang Lebong Regency, the next step is to calculate each factor to obtain values to determine the position of the SWOT quadrant.

Table 3. Analysis of IFAS/EFAS

Internal Factor Attractive Score/IFAS	2.73	**External Factor Attractive Score /IFAS**	2.65
Total Strength Score (S)	1.74	Total Opportunity Score (O)	0.67
Total Weakness Score (W)	0.99	Total Threat Score (T)	1.98
S-W	**0.75**	**O-T**	**-1.31**

Based on the X-axis value (0.75) and Y-axis value (-1.31) from the table of internal factor attractive score and external factor attractive score of the coffee plantations. Understanding this position, strategic steps can be taken to maximize potential and address the challenges faced by the coffee plantations. Thus, the coffee plantations can be more directed and sustainable, thereby providing maximum benefits to farmers and the surrounding community. The coordinates determine the quadrant focus direction recommendations for coffee plantations in Rejang Lebong.

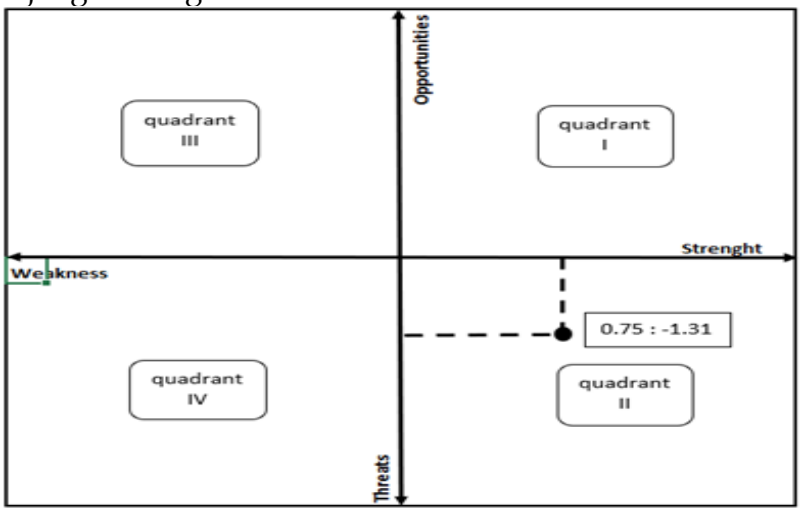

Figure 1. SWOT Quadrant of Coffee Smallholder Plantations in Rejang Lebong Regency

The coordinate point is located in quadrant 2, which implies that recommendations should leverage strengths to overcome existing threats. Based on the SWOT analysis data, the author recommends several steps that can be taken to optimize development strategies.

a. Development of organic farming using local genotype

The development of organic farming using the local genotype Sintaro 1 in coffee plantations in Rejang Lebong Regency is a promising strategic step in facing challenges and leveraging existing potentials. Local genotype like Sintaro 1 have proven to have good adaptation to local environmental conditions and produce high-quality coffee beans. By developing organic farming, farmers can reduce dependence on chemical fertilizers and pesticides that have the potential to harm the environment and consumer health (Nugraheni & Purnama, 2013). Additionally, the use of local genotype can strengthen local food sovereignty and increase the added value of coffee products. This step not only supports environmental sustainability but also provides sustainable economic opportunities for coffee farmers in Rejang Lebong Regency. Thus, the development of organic farming using the local genotype Sintaro 1 is the right step in strengthening the coffee farming sector in the region.

b. Utilizing local genotype to minimize pests and diseases

The use of local genotype in agriculture is an effective strategy to minimize pests and diseases that often threaten crops. Local genotype possess genetic advantages that are more adaptive to the local environment, making them more resistant to pest and disease attacks (Onda & Mochida, 2016). By harnessing local genotype in coffee plantations, farmers can reduce dependence on chemical pesticides that have the potential to harm the environment and human health. Additionally, local genotype are usually tested and proven to withstand specific environmental conditions, thereby reducing the risk of crop loss due to pest and disease infestations. Thus, the use of local genotype is a smart strategy to enhance productivity and sustainability in agriculture while minimizing negative impacts on the environment and human health.

c. Constructing terraces and individual terraces on plantation land.

The construction of terraces and individual terraces on plantation land in Rejang Lebong is a practice that aligns with the topography of the region. With its hilly terrain, terrace construction becomes an effective solution to reduce soil erosion and maximize land use (Deng et al., 2021). Individual terraces are formed according to the slope and contour of the land, allowing coffee plants to grow optimally without being disrupted by flowing rainwater. Additionally, individual terraces also aid in proper drainage regulation, ensuring an adequate yet non-excessive supply of water for coffee plants. The practice of terrace construction has been proven effective in improving crop yields and maintaining environmental sustainability in Rejang Lebong, and it has become an integral part of the local farming culture. By preserving and further developing terrace and individual terrace construction according to the topography, farmers can continue to optimize the potential of coffee plantation land in the region.

d. Suitable Shade for Coffee Plant Needs

Appropriate shading plays a crucial role in successful coffee cultivation. Coffee plants naturally thrive under the shade of large trees in their native habitat. Therefore, in commercial cultivation, it is important to provide suitable shading so that coffee plants can grow optimally. Proper shading helps regulate sunlight intensity, maintain soil moisture, and provide protection from excessive direct sunlight (Aguiar et al., 2019). Coffee plants typically require partial shade, where sunlight can still penetrate sufficiently for photosynthesis, but not too intensely to cause stress or sunburn to the coffee plants. The selection of shade tree species should also consider factors such as water requirements, root depth, and the interaction between coffee plants and shade trees. By providing appropriate shading, farmers can help coffee plants achieve healthy growth and produce high-quality coffee beans.

e. Improvement of Cultivation Systems for Highland Coffee Plants

Improving the cultivation system for highland coffee plants in Rejang Lebong Regency is a strategic step to enhance productivity and quality of coffee harvests. Highland areas provide an ideal environment for coffee plant growth; however, challenges such as climate change and alterations in rainfall patterns demand continuous adaptation in cultivation systems. By improving the cultivation system, farmers can adopt more efficient and sustainable farming

practices, such as using organic fertilizers, integrated pest and disease management, and implementing efficient irrigation (Baker et al., 2015). Additionally, integrating modern technology such as soil sensors and weather monitoring can assist farmers in optimizing land management and crop maintenance. By enhancing the cultivation system, farmers can increase coffee plant productivity, maintain ecosystem balance, and improve the welfare of farmers and the sustainability of the coffee farming sector in Rejang Lebong Regency.

CONCLUSIONS AND RECOMMENDATIONS

The coffee plantation cultivation system in Rejang Lebong generally involves several stages: land clearing, seed selection, planting, maintenance (weeding, pruning orthotropic shoots, pruning water shoots, pest and disease control, fertilization), and harvesting. To enhance the quality and quantity of coffee production in Rejang Lebong, recommended developments include the following: development of organic farming with local genotype, use of local genotype to minimize pest and disease attacks, construction of terraces and individual terraces in plantation areas, provision of shading appropriate to the needs of coffee plants, improvement of cultivation systems for highland coffee plants.

FURTHER STUDY

This research still has limitations, so it is necessary to carry out further research related to the topic of Recommendations for the Development of Coffee Plantations to Improve the Quality and Quantity of Production Results in order to improve this research and add insight to readers.

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