

Soybean Farming Development Strategy to Sustainably Increase Farmers' Capacity in Serang District

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Abstract

Soybeans are a unique strategic commodity in the Indonesian farming system and are included in the top three main food commodities in Indonesia besides rice and corn. Apart from being a people's food, soybeans are also the healthiest source of vegetable protein, and soybeans are known to be cheap and very affordable in terms of price and quality by the majority of Indonesian people. This research aims to examine the farming cost structure, break-even point, internal and external factors, and soybean development strategies. Sampling was carried out using a survey method, with 40 respondents. Data were collected using a questionnaire which was then analyzed using Farming Cost and Income Analysis and continued with SWOT Analysis. Based on the research results, shows that soybean farming income in Serang Regency has an average income of IDR 14,472,000, production costs incurred are IDR 8,112,646, so the income received is IDR 6,359,354 with profitable results. The break-even point for soybean farming is with an average R/C value of 1.78, the production BEP value is 316 kg/ha/year, the price BEP value is IDR 6,727/kg, the revenue BEP value is IDR 4,644,598, this shows that soybean farming in Serang Regency is declared efficient. The SWOT analysis shows that the position of soybean farming is located in quadrant I, namely the implementation of a Growth-oriented strategy, meaning that soybean farming is in a growth situation.

Keywords: internal and external factors; soybean development strategy; farming cost structure, break-even point

1. Introduction

Soybeans are a unique strategic commodity in the Indonesian farming system. Soybeans are included in the top three main food commodities in Indonesia besides rice and corn. The role of soybeans is very important in the development of the Indonesian population (Supadi, 2009).

Soybeans in Indonesia are mostly used as industrial raw materials and soybeans can also be processed into tempeh, tofu, soy sauce, tauco and soy milk. Processed soybean products are an important menu item in the consumption patterns of Indonesian people, especially people on the island of Java. Processed ingredients such as tofu, tempeh, and soy sauce are very important. Soybeans dominate for food in Indonesia, while the rest is used for processing soy milk, tauco, flour and other processed raw materials. This makes soybeans an important commodity and a huge market opportunity for the development of soybeans in Indonesia (Ginting et al., 2009).

The need for soybeans in Indonesia continues to increase every year. It was noted that the need for soybeans in 2012 was 2.2 million tons compared to 2011 which was only 2.16 million tons. From the results of these needs, on average, around 25-30% can be met by domestic production, with the rest obtained by the country through imports. Based on data from the Central Statistics Agency (2011), local soybean production is only 851,286 tons or 29% of total demand, so Indonesia must import 2,087,986 tons of soybeans to meet 71% of domestic soybean needs.

Along with the rate of population growth and the development of industries made from soybeans, the need for soybeans is increasing. On the other hand, soybean production in recent years has shown a decreasing trend. The decline in soybean production is caused by five things, namely: First, the decline in farmers' enthusiasm for planting soybeans because it is considered less profitable than growing other commodities. Second, there is a flood of imported soybeans at cheaper prices. Third, national soybean productivity is still low because technology has not been implemented correctly. Fourth, farmers' capital is weak, especially for purchasing production facilities. Fifth, government support for efforts to increase soybean production is not yet optimal, both import policies, capital policies and production facilities policies (Anonymous, 2005).

The main problem that spurred an increase in imports is (1) agricultural production in Indonesia has not been able to meet domestic market demand. Dependence on imported food will create vulnerabilities in national food security related to the risks and uncertainties in world food supply and the international food market situation. (2) The existence of illegal imports results in the loss of part of the state's income from import duties. and other import taxes. Apart from that, not knowing exactly the total imports of the main food commodities will have an impact on the vulnerability of the national food security system to becoming ineffective.

The policies that occur in the world will greatly influence the soybean commodity, one of which is the world war between Ukraine and Russia which caused the loss of the marketing chain for imports from foreign countries which resulted in the need for soybean consumers increasing while soybean producers decreased, this was felt strongly in the Regency area. Serang, so that the Minister of Agriculture designated Serang Regency as one of the districts with a center for soybean development in Indonesia to be able to return Indonesia to being self-sufficient in soybeans.

2. Literature Review

Soybean Overview

Soybeans are native to Mainland China and have been cultivated since 2500 BC. The development of trade between countries has caused kedelai plants to spread to various trade destination countries, namely Japan, Korea, Indonesia, India, Australia and America. Soybeans became known in Indonesia since the 16th century. The initial spread and cultivation of soybeans was on the island of Java, then expanded to Bali, Nusa Tenggara and other islands (Irwan, 2006).

Agricultural Development Policy

Agricultural development policies that are oriented towards agribusiness systems and businesses directly result in the need for support from adequate financial sources, so that the implementation of agribusiness development can proceed in accordance with the established program. In an effort to meet agribusiness financing needs, it is necessary to develop financing sources from both existing banking and non-banking financial institutions.

Farming

Farming is a science that studies how to allocate the resources owned by farmers so that they run effectively and efficiently and utilize these resources in order to obtain the highest profits (Soekartawi, 2011).

Farming Costs

According to Soekartawi (2001), production costs are the value of all production factors used, both in the form of objects and services during the production process. In general, costs are sacrifices made by producers in managing their farming business to get maximum results. The existence of production elements that are fixed and variable in the short term results in the emergence of two categories of costs, namely fixed costs and variable costs.

Farming Revenue

According to Soekartawi (2006), farming revenue is the multiplication of the production volume obtained by the selling price. Selling price is the transaction price between producers and buyers for each commodity. The units used are the units commonly used between sellers/buyers in bulk, for example: kilograms (kg), quintals (kw), tons, tons, and so on.

Farming Income

In general, farming income is the difference between income and costs incurred. Expected income is positive. Revenue is the value of money received from the sale of business products, while expenses or costs are all resource sacrifices measured in units of money spent to achieve certain goals. Farming or business expenses generally include fixed costs and operational costs.

Business strategy

A business strategy is a plan or activity or method used by a company to build and strengthen its business in terms of competing products or services in a particular market (Hariadi, 2003).

To achieve this, there are 3 (three) stages that need to be carried out by farmers, namely:

1. Decide where farmers will have good opportunities in win the competition.
2. Improve the characteristics of the product or service to make it attractive to buyers strong.
3. Neutralize every move from your opponent. Business strategy can be associated with actions or activities to develop skills or capabilities that will be needed in order to achieve competitive advantage. In this case the government collaborates with farmers to developing marketplaces in soybean production center areas apart from that maintain product availability and delivery systems

3. Research Methods

This research was carried out in 6 sub-districts, the center for soybean development, Serang Regency and the time required for this research, from the preparation stage to writing the report, is estimated to be 3 months from October to December 2023. This research is in the form of analytical descriptive research with a qualitative approach, namely a type of research to develop a certain object or the frequency of occurrence of an aspect of a social phenomenon in a certain environment. According to Sugiyono (2020) descriptive analysis is research carried out to determine the existence of independent variables, either only one variable or more (stand-alone variables) without making comparison of the variables themselves and looking for relationships with other variables. The sample used in this research was taken based on data that could represent the population purposively. As stated by Sugiyono (2018), the sample is part of the number and characteristics of the population. Therefore, the sample used in this research is the entire population that is the research subject.

4. Results And Discussion

Analysis of Costs and Income of Soybean Farming in Serang Regency

Fixed costs are costs that do not affect production and continue to be incurred even if the production obtained is large or small and even if production is not carried out, the amount of the costs does not depend on the size of the production costs obtained. This cost consists of depreciation of production equipment (Luntung, 2015). Fixed costs incurred in this research include land rental and equipment depreciation value (NPA).

Table 1. Average value of equipment depreciation (NPA) per hectare of soybean farmers in the Regency Attack.

No.	Total Cost	Type
1	Land Rent	2.400.000
2	Hoes	366.350
3	Sprayer	390.575
Totals		3.156.925

Table 1 shows that the average land rental cost is IDR. 2,400,000, the average hoe is IDR. 366,350 per hectare / year and the average sprayer cost is IDR. 390,575 per hectare/year. Soybean farming activities in Serang Regency can be carried out per planting season so that the economic value of the hoe and sprayer is estimated at ± 5 years, where the depreciation value of the hoe in one season is IDR 73,270 and the sprayer is IDR 78,115 so the total depreciation value of the equipment (NPA) in one season namely IDR 151,385. The results of the recapitulation of average fixed costs can be seen in table 2.

Table 2. Results of recapitulation of average fixed costs and those incurred by soybean farmers in Serang Regency

No.	Description	Total Cost (Rp)/IDR
1	Equipment Depreciation Value	151.385
Totals		151.385

Table 3. Recapitulation results of average variable costs per hectare of soybean farming in Serang Regency

No.	Description	Total Cost (Rp)/IDR
1	Urea	1.245.312
2	NPK	1.095.875
3	Phosmite	315.000
4	Insecticides	121.687
5	Fungicides	14.843
6	Herbicides	62.387
7	Labor	989.500
Totals		3.844.606

Table 3 shows that the average use of urea fertilizer per hectare with a total cost of Rp. 1,245,312, the average NPK fertilizer per hectare is 1,095,875, while the organic phosmite fertilizer is 315,000. The pesticides used consisted of 121,687 insecticides, 14,843 fungicides and 62,387 herbicides. Average labor use per hectare with a total cost of 989,500. Labor costs from land processing to post-harvest (drying)

labor costs are highest during land processing (Rp. 80,000) while the lowest are during weeding and fertilization (Rp. 50,000).

Table 4. Analysis of costs and average income per farmer's hectare respondents in Serang Regency

No	Description	Average Value (Rp)/IDR
1	Acceptance (TR) = Y.P	
	A. Yields (Y) Kg	1.206
	B. Production Price (P) Rp	12.000
	Total reception	14.472.000
2	Cost	
	A. Variabel Cost (VC)	
	• Total Labor	989.500
	Fertilizer	
	• Urea	1.245.312
	• NPK	1.095.875
	• Phosmite	315.000
	Pesticide	
	• Insekticides	121.687
	• Fungicides	14.843
	• Herbicides	62.387
	Additional Cost	
	• Seed	1.262.500
	Total Variabel Cost	5.107.106
	B. Total Fixed Cost (FC)	
	• Land rent	2.400.000
	Equipment Depreciation Value	
	• Hoe	293.080
	• Sprayer	312.460
	Total Fixed Cost	3.005.540
3	Total Cost (TC)	
	A. Variabel Cost (VC)	5.107.106
	B. Fixed Cost	3.005.540
	Total Production Cost	8.112.646
4	Revenue (R) = TR – TC	6.359.354

Table 4 shows that the average total revenue is IDR 14,472,000/ha with a total production of 1,206 Kg at a price of IDR 12,000/Kg. Variable labor costs are IDR 989,500/hectare, urea fertilizer IDR 1,245,312/hectare, NPK IDR 1,095,875/hectare, Phosmit IDR 315,000/hectare. For pesticides, the cost of insecticides is IDR 121,687/hectare, fungicides IDR 14,843, herbicides IDR 62,387/hectare. The seed cost is IDR 1,262,500/hectare with an average variable cost of IDR 5,107,106/hectare while the average fixed cost is IDR 3,005,540/hectare, where the depreciation cost for the hoe is IDR 293,080/hectare, the sprayer is IDR 312,460 / hectare while the land tax (PBB) value is IDR 0 because the respondent does not have a certificate. So the total average income per hectare is IDR 6,359,354.

Table 5. SWOT Analysis Calculation of Internal Factors

IFAS	Description		Weight	Rating	Score
<i>Strength</i>			1	2	3
1	Soybean farmers are members of farmer groups	ST ₁	0,07	5	0,35
2	Potential land area suitable for soybean development	ST ₂	0,06	5	0,30
3	Availability of productive farmer resources (age: 15 – 64 years)	ST ₃	0,06	4	0,24
4	There is regular training by extension officers and technical guidance from the Ministry as well as other stakeholders	ST ₄	0,06	4	0,24
5	Agronomic Conditions in Soybeans	ST ₅	0,05	4	0,20
6	Availability of agricultural facilities and infrastructure locally	ST ₆	0,04	3	0,12
7	Creation of a culture of mutual cooperation among farmers	ST ₇	0,06	5	0,30
8	Ownership of Digital Communication Tools	ST ₈	0,05	4	0,20
9	Creation of a Supportive Community Culture	ST ₉	0,06	4	0,24
10	Strengthening Farmer Institutions	ST ₁₀	0,06	4	0,24
Sub Total			0,57		2,43

<i>Weakness</i>			1	2	3
1	Seed plants used farmer not enough quality	KL ₁	0.04	3	0.12
2	Farmer more prioritize commodity National Soybeans	KL ₂	0.03	2	0.06
3	There aren't any yet industry processing soybeans in development areas scale farmer (small scale)	KL ₃	0.04	3	0.12
4	Farmer depend on capital loan from middleman with a debt bondage system	KL ₄	0.04	3	0.12
5	Dependency farmer to help government Still tall	KL ₅	0.05	4	0.2

6	Marketing results harvest Still own obstacle	KL ₆	0.04	3	0.12
7	Use technology Not yet adequate	KL ₇	0.05	4	0.2
8	Activity farming soya bean Still done Manually	KL ₈	0.05	4	0.2
9	Excitement Farmer For do Cultivation Soya bean Decrease	KL ₉	0.04	3	0.12
10	Mastery Farmer Regarding Cultivation Techniques Soya bean Still not enough	KL ₁₀	0.05	4	0.2
Sub-Total			0.43		1.46
Total	IFAS		1.00		3.89

Table 6. SWOT Analysis Calculation of External Factors

<i>EFAS</i>	Description		Weight	Ratings	Score
<i>Opportunities</i>			1	2	3
1	Soybean market opportunities Still open	PL ₁	0.07	4	0.28
2	Help means production from government .	PL ₂	0.06	4	0.24
3	There is commitment government in give guarantee price and buy results harvest	PL ₃	0.06	4	0.24
4	Availability access capital via bank (KUR)	PL ₄	0.06	4	0.24
5	There are people who buy coffee results harvest soya bean	PL ₅	0.03	2	0.06
6	Appearance more machines advanced	PL ₆	0.06	4	0.24
7	Regulations and policies government (Regional Minister of Trade Regulation No.84/M-DAG/PER/12/2013)	PL ₇	0.06	4	0.24
8	Availability various type product processed soya bean	PL ₈	0.07	4	0.28

9	Lots of it Researcher Development Local soybeans	PL ₉	0.06	3	0.18
Sub-Total			0.53		2

Threats			1	2	3
1	The existence of other commodities with handler more easy	AC ₁	0.07	4	0.28
2	There is an attack difficult pests and diseases under control	AC ₂	0.07	4	0.28
3	Competition with soya bean import	AC ₃	0.06	4	0.24
4	Change difficult climate / weather predicted .	AC ₄	0.08	5	0.4
5	It happened Natural disasters	AC ₅	0.04	2	0.08
6	Selling Price of Soybeans	AC ₆	0.05	3	0.15
7	Position Bid	AC ₇	0.05	3	0.15
8	Competition with Soya bean Local	AC ₈	0.05	3	0.15
Sub-Total			0.47		1.73
Total	EFAS		1		3.73

Based on the IFAS and EFAS calculation results, the total IFAS is 0.48 and EFAS is 0.13. After knowing these two values, a SWOT analysis diagram can be prepared to determine the relative position of soybeans in Serang Regency in the first, second, third or fourth quadrants.

So from the results of the above calculations it can be determined that the relative position of Soybean development in Serang Regency is at the coordinate points (0.48); (0.13) in the first quadrant which shows that Soybean development in Serang Regency has opportunities so that it can take advantage of existing opportunities by use the power you have. The development strategy that is in accordance with the position of soybeans in Serang Regency is a strategy to support farming growth.

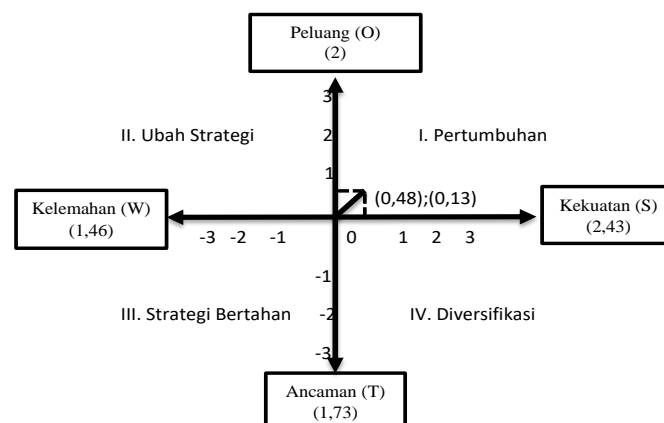


Figure 1. SWOT Diagram Analysis

Based on the SWOT diagram in Figure 1. It can be seen that soybean farming in Serang Regency is in quadrant I, meaning favorable conditions. Soybean farming has strengths so it can take advantage of existing business opportunities. The strategy used in this condition is to support significant growth (Growth oriented strategy).

Table 7. SWOT Analysis Results

SWOT	Strength (S)	Weakness (W)
IFAS	<ol style="list-style-type: none"> Farmer soya bean combined in group farmer Potency wide suitable land For development kadelai Availability resource Productive farmer (age : 15 – 64 years) There is regular training by officers counseling and technical guidance from the Ministry and other stakeholders Condition Agronomist on Soybeans Availability facilities and infrastructure agriculture in a way local Its creation Culture of mutual cooperation between farmer Ownership of Digital Communication Tools Creation of a Supporting Community Culture Strengthening Institutional Farmer 	<ol style="list-style-type: none"> Seed plants used farmer not enough quality Farmer more prioritize commodity National Soybeans There aren't any yet industry processing soybeans in development areas scale farmer (small scale) Farmer depend on capital loan from middleman with a debt bondage system Dependency farmer to help government Still tall Marketing results harvest Still own obstacle Use technology Not yet adequate Activity farming soya bean Still done Manually Excitement Farmer For do Cultivation Soya bean Decrease Mastery Farmer Regarding Cultivation Techniques Soya bean Still not enough
EFAS		
Opportunity (O)	Strategy (SO)	Strategy (WO)
<ol style="list-style-type: none"> Soybean market opportunities Still open Help means production from government . There is commitment government in give guarantee price and buy results harvest Availability access capital via bank (KUR) 	<ol style="list-style-type: none"> Maximizing utilization land in development and improvement production kadelai For fulfil soybean market demand local . (S 2,O 1) Push farmer productive For active in group farmers to earn help means production from government . (S1,S3,S4,O2) 	<ol style="list-style-type: none"> Facilitate marketing results production to industry processing tofu and tempeh in accordance with market price . (W 3,O 3) Increase role institution finance For make it easier farmer obtain KUR in frame accept capital beside utilise available help . (W4, O2.O4) Increase Motivation Farmer with more machines sophisticated for

<p>5. There are people who buy coffee results harvest soya bean</p> <p>6. Appearance more machines advanced</p> <p>7. Regulations and policies government (Regional Minister of Trade Regulation No.84/M-DAG/PER/12/2013)</p> <p>8. Availability various type product processed soya bean</p> <p>9. Lots of it Researcher Development Local soybeans</p>	<p>3. Facilitating Facilities and Infrastructure in accordance with condition agronomist for results harvest can maximum and the government committed in give guarantee price soya bean . (S 5,S 6,O3)</p> <p>4. Create Mutual Cooperation Culture and Network Culture with stakeholders as well researcher use digital communications for strengthening institutional farmer (S 7,S 8,S9,S10,O9)</p>	<p>results harvest can bought by Kopti with the price is right and made various type product processed soybeans (W 6,W 7,W8,W9,O5,O6,O7,O8)</p>
<p>Threats (T)</p>	<p>Strategy (ST)</p>	<p>Strategy (WT)</p>
<p>1. The existence of other commodities with handler more easy</p> <p>2. There is an attack difficult pests and diseases under control</p> <p>3. Competition with soya bean import</p> <p>4. Change difficult climate / weather predicted .</p> <p>5. It happened Natural disasters</p> <p>6. Selling Price of Soybeans</p> <p>7. Position Bid</p> <p>8. Competition with Soya bean Local</p>	<p>1. Increase resource farmer productive through School Roomy Integrated Pest Management (SL-PHT) which is followed up by SL-Iklim (SL-I). (S 3,S 4,T2,T4)</p> <p>2. Utilise the potential it has group farmer productive in effort increase quantity and quality production For anticipate competition with soya bean imports , disaster nature , price sell , position plain , and soy local . (S 1,S 2,S3,S4,T3,T5,T6,T7,T8)</p>	<p>1. Development involving partnerships subsystem upstream , downstream and supporting in matter provision means production , industry processing , capital, as well guarantee purchasing and market prices so farmer No interested For replace soybean plant with commodity other . (W 1, W 2, W3, W4, W5, W6, W7, T1)</p>

The SWOT matrix was created to explain various alternative strategies that will help develop soybean farming using four types of strategies, namely SO (Strength-Opportunities), ST (Strength-Threats), WO (Weakness-Opportunities), and WT (Weakness-Threats) strategies. The strategy is generated from a combination of internal factors (strengths and weaknesses) and external factors (opportunities and threats) through a SWOT matrix of 10 alternative strategies. The results of the SWOT matrix analysis of soybean farming can be seen in the table.

Draft Soybean Seed Farming Business Development Strategy to increase farmer capacity in a sustainable manner in Serang Regency

Based on the strategy formulation in the SWOT analysis, the following are the programs proposed by the author to increase the capacity of farmers in providing seeds sustainably in Serang Regency:

1. Strategy to maximize land use in developing and increasing soybean production to meet market demand for soybeans.

- a. Optimizing land use: Using land optimally by carrying out crop rotation, intercropping, or polyculture to maximize soybean production results.
- b. Increasing production gradually towards self-sufficiency
- c. Developing stakeholders such as government, BUMD, private sector and cooperatives in soybean agribusiness
- d. Encourage community movements in the development of soybeans
- e. Increasing sources of capital with a partnership pattern
- f. Develop effective and efficient marketing patterns for soybean products and trading systems.

2. Encourage productive farmers to be active in farmer groups in order to obtain assistance for production facilities from the government.

- a. Socialization and Education: Conduct outreach and education to farmers about the benefits of joining farmer groups, including easy access to assistance with production facilities from the government as well as the benefits of collaboration in farmer groups, such as sharing knowledge, resources and risks.
- b. Facilitation of Farmer Group Formation: assisting farmers in forming farmer groups by providing guidance and technical support as well as preparing organizational structures, governance and work plans.
- c. Providing Training and Mentoring: Providing training and mentoring to farmer group members in various aspects of agriculture, business management and institutions to improve skills and knowledge.
- d. Facilitate Access to Government Assistance: Assist farmer groups in accessing assistance for production facilities from the government, such as fertilizer, superior seeds, agricultural equipment and irrigation infrastructure.

3. Facilitate facilities and infrastructure in accordance with agronomic conditions so that harvest results

can be maximized and the government is committed to providing guaranteed prices for soybeans

- a. Provision of Agricultural Machine Tools: Facilitate tractors or other agricultural machine tools according to conditions in the field, if in expanse areas a combine harvester will be provided as a harvesting solution.
- b. Collaborating with government, BUMD, private sector and cooperative stakeholders to be able to buy soybean crops at high prices.

4. Creating a Culture of Mutual Cooperation and Network Culture with stakeholders and researchers

using digital communication to strengthen farmer institutions.

- a. Involve all members of the Farmer Group either in deliberation activities or in real work activities to strengthen farmer institutions.
- b. Create groups or communities on all social media so that communication between farmers can be established.

- 5. Facilitate the marketing of production results to the tofu and tempe processing industry according to market prices.**
 - a. Improve the quantity and quality of soybeans so that they can be purchased at high prices.
 - b. The government is collaborating with the private sector to facilitate soybean production to the tofu and tempeh industry.
- 6. Increasing the role of financial institutions to make it easier for farmers to obtain KUR in order to receive capital in addition to utilizing existing assistance.**
 - a. Socialization from financial institutions in each sub-district regarding KUR for farmers
 - b. Organizing a capital access program for farmers with a harvest payment system.
- 7. Increasing Farmer Motivation with more sophisticated machines so that the harvest can be purchased by Kopti at the right price and various kinds of processed soybean products can be made.**
 - a. Carrying out outreach and training activities to farmers regarding the benefits of using more sophisticated agricultural machines, including time and energy efficiency, increased productivity, and improved quality of harvests, with good understanding, farmers will be more motivated to use these machines.
 - b. Providing agricultural machinery assistance to farmers or collaborating with other parties to make it easier for farmers to obtain agricultural machinery.
 - c. Form or collaborate with the Farmers' Cooperative (Kopti) as a forum for farmers to sell their crops together. Kopti can help in negotiating better prices with buyers, including for purchasing farmers' soybean crops.
- 8. Organizing training on processing soybeans into various kinds of processed products with added value, such as tofu, tempeh, soy milk, and so on.**
 - a. Increasing the resources of productive farmers through the Integrated Pest Management Field School (SL-PHT) which is followed up by SL-Iklim (SL-I).
 - b. Providing special technical guidance for soybean farmers regarding Integrated Pest Management and Climate so that farmers are able to implement it in the field.
 - c. Create a special activity program for soybean farmers to control pests and the climate.
- 9. Utilizing the potential of productive farmer groups in an effort to increase the quantity and quality of production to anticipate competition with imported soybeans, natural disasters, selling prices, bargaining positions and local soybeans.**
 - a. Developing new varieties that can improve the quality and production of soybeans
 - b. Participate in training from extension officers or the Ministry of Agriculture regarding soybean cultivation.
- 10. Developing partnerships that involve upstream, downstream and supporting subsystems in terms of providing production facilities, processing industry, capital, as well as purchasing guarantees and market prices so that farmers are not interested in replacing kadola crops with other commodities.**
 - a. Collaborate with government agencies, private parties or researchers to develop superior varieties so that farmers can sell at market prices so that farmers can continue cultivating soybeans.

5. Conclusion

1. The cost structure for soybean farming in Serang Regency is fixed costs of IDR 3,005,540 and variable costs of IDR 5,107,106. This proves that farmers' expenditure in Serang Regency is greater on variable costs. The average soybean revenue in Serang Regency is IDR 14,472,000/ha with production costs incurred of IDR 8,112,646/ha so the income received is IDR 6,359,354.
2. The average R/C value is 1.78, this shows that for every Rp. 1 spent on soybean farming, farmers receive income of Rp. 0.78. So soybean farming in Serang Regency is declared to be efficient. The Productivity Index in soybean farming is IDR. 23,192/HOK when compared between the Productivity Index (IP) and the prevailing wage rate, namely Rp. 50,000 per HKO, then the productivity index figure shows a value smaller than the labor wage rate per HOK. The BEP production value is 316 kg/ha/year and the total soybean production in Serang Regency is 1,206kg/ha/year, this shows that the total production is higher than the production BEP value. The BEP value of the selling price is IDR 6,727/kg and the average selling price of soybeans is IDR 12,000/kg, this shows that the selling price of soybeans is higher than the BEP value of the selling price of soybeans. The BEP revenue value is IDR 4,644,598 and the total revenue for soybeans is IDR 14,472,000, this shows that the total revenue for soybeans is higher than the BEP revenue value.
3. Based on the results of the IFE matrix analysis, it is known that the main strength in soybean farming in Serang Regency is with a score of 2.43, while the weakness in soybean farming in Serang Regency is with a score of 1.46. Based on the results of the EFE matrix analysis, it is known that the opportunity for soybean farming in Serang Regency is with a score of 2, while the threat for soybean farming in Serang Regency is with a score of 1.73.
4. The position of soybean farming is located in quadrant I, namely the implementation of a Growth oriented strategy , meaning that soybean farming is in a situation of great growth. An alternative strategy that can be implemented to support the development of soybean farming is by creating a Soybean Seed Farming Business Development Strategy Plan to increase the capacity of farmers in a sustainable manner in Serang Regency.

6. Suggestion

Steps that must be taken in efforts to develop soybean farming in Serang Regency are by increasing the enthusiasm of farmers and facilitating facilities and infrastructure as well as knowledge related to agricultural technology so that farmers have higher incomes and better welfare opportunities by cultivating soybeans well. Attention and commitment from local governments is highly expected in developing soybean farming, especially in ensuring that soybean prices are in line with market prices.

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