

The Contribution of Cattle Farming Business towards Income Farmer Families at New Reyan Farmer Group West Lombok

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ABSTRACT

Beef cattle farming business can be said to be successful if it has contributed income and can meet the daily needs of farmers. This study aims to determine the net income of farmers from horticultural crop farming, net income of farmers from cattle farming, net income of farmers from other businesses, net income of farmers families, the contribution of cattle farming to the income of farmers household, and to determine the correlation between cattle farming business with the income of farmers household. This research was conducted in Reyan Baru livestock farmers group located in South Gerung Village, Gerung District. The study started from March to April 2023 using the survey method. Determination of the location of this study was done intentionally (Purposive). The number of respondents taken as many as 25 responden with criteria of group members who have two activities, namely cattle breeding and farming. The results showed that the net income of farmers from farming horticultural crops during the growing season (six month) an average of Rp39.368.896, farmers 'income from cattle farming business suffered an average loss of Rp-8.184.000, net income of farmers from other businesses an average of Rp2.664.000, total net income of farmers families an average of Rp33.961.896, the contribution of cattle farming to the income of farmers household amounted to -23,76%. Cattle farming business economically has not contributed to the income of farmers house hold. Due to because at the time of the study conducted cattle prices are experiencing a significant decline after the PMK attack. From the analysis obtained correlation coefficient (r) se 0.10641. It mean that the cattle farming business has a very weak relationship with the income of the farmer's family.

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INTRODUCTION

Livestock farming is one of the agricultural subsectors that is very important in supporting the economy. Livestock has a contribution in providing animal protein needs for society. Animal protein functions to support cell growth, strengthen the body's endurance, build muscle, support metabolism, and as a source of energy. Quoting data from the Organization of Economic Cooperation and Development for 2021, beef consumption in Indonesia is 2.2 kg per capita, below the world average of 6.4 kg per capita. The Central Statistics Agency (BPS) in September 2021 reported that the average per capita consumption of meat protein in Indonesia was 4.52 grams per day. This amount is still very far from the recommended daily consumption of chicken or beef, namely 50-60 grams per day (Khomsan, 2023).

Since 2000, the Central Government through the Ministry of Agriculture, the Directorate General of Animal Husbandry and Animal Health has continued to carry out improvement programs and activities to increase the population of cattle and buffalo in the country. This improvement program is based on the government's desire to meet domestic meat needs by embracing people's livestock businesses, in addition to gradually reducing imported supplies. The program to increase the population of cattle and buffalo started in

early 2000 with the Beef Self-Sufficiency Program, continued with efforts to increase births of Birtak Leuter and Artificial Insemination (GBIB) in 2015 – 2016, Special efforts for Compulsory Pregnant Cows (UPSUS SIWAB) in 2017–2019 and refined into the National Mainstay Commodity Buffalo Beef activity (SIKOMANDAN which started in 2020 (NTB Provincial Animal Husbandry and Health Service, 2021).

The benchmark for the success of developing the livestock sub-sector in West Nusa Tenggara (NTB) in the last three years is the increase in livestock population with an average population growth of 4% spread across districts/cities. The cattle population in NTB is among the top four in Indonesia's germplasm, while in providing meat, NTB Province contributes 3%, namely 22,684 tons of national meat production of 490,400 tons. Another contribution of the livestock sub-sector is the employment of 420 thousand people per year with the livestock farmer exchange rate (NTPP) continuing to increase above 105 NTPP every year, which means the price index received by livestock farmers is greater than the price index received by livestock farmers. farmer breeder. Farmers experience an increase in terms of trade when the average level of prices they receive increases faster than the average level of prices they provide (NTB Provincial Livestock and Animal Health Service, 2021).

Of the eight districts/cities in NTB Province, West Lombok Regency is one of the cattle population centers and has generally experienced an increase from previous years. This increase can be seen from data published by the NTB Provincial Central Statistics Agency from 2017 to 2019, where there was an increase in population from 106,640 individuals in 2017, 113,358 individuals in 2018 and 119,185 individuals in 2019. In 2022, the total cattle population in West Lombok Regency will be 126,422 head. Of the 10 sub-districts in West Lombok Regency, Gerung District is in third place with the highest number of cattle populations, with 19,326 heads. Sheet District with a population of 36,504 cattle is in first place, followed by Sekotong District with a population of 32,760 (UPT. Puskesmas Southern Region, 2022).

METHOD

This research was conducted from March to April 2023 using a survey method at the Reyan Baru Livestock Farmers Group located in Gerung Selatan Village, Gerung District. Determining the research location was carried out purposively. The population in this study were all members of the Reyan Baru Livestock Farmers Group, totaling 103 people. The sample of respondents selected were farmers who had cattle and cultivated land. The group members who met these requirements were 25 people (23% of the population). All these breeders were selected as sample respondents by census.

RESULTS AND DISCUSSION

Analysis of Horticultural Crop Farming

Analysis of horticultural crop farming was carried out to determine the income earned by respondents from farming in the research area. In detail, the results of the analysis of horticultural farming can be seen in table below. It can be seen that the total fixed costs incurred by respondents are an average of IDR 6,226,100 per season (six months), which consists of land rent (73.08%), depreciation of tools and materials (26.92%). Table 3.1 also shows that farmers' net income from horticultural crops reached IDR 39,368,896 during one planting season (six months), or an average of IDR 6,561,482.67 per month. This shows that the horticultural crop farmers who were respondents in this research are prosperous farmers, because they have incomes that are much greater than the Provincial Minimum Wages (UMP) and Regency Minimum Wages (UMK) that have been set by the government. As is known, the UMP value set by the NTB Provincial Government in 2023 is IDR 2,371,407 per month.

Table 1. Economic Analysis of Horticultural Farming

No	Description	Average Total (Rp)	Percentage (%)
	Fixed cost		
a.	Land lease	4.550.000	73,08
b.	Depreciation of tools and materials	1.676.100	26,92
c.	Total Fixed Costs	6.226.100	100
	Variable Costs		
a.	Seed	1.975.070	6,63
b.	Fertilizer	16.409.044	55,12
c.	Pesticides/Drugs	3.862.240	12,97

d. Labor costs	7.521.850	25,27
e. Total Variable Costs	29.768.204	100
Total Cost (Fixed + Variable)	35.994.304	
Gross Income	75.363.200	
Net income	39.368.896	

Source: Data processed, 2023

Cattle Farm Business

Analysis of the cattle breeding business was carried out to determine the income earned by the respondent farmers from the cattle breeding business in the study area. In detail, the results of the cattle farming business analysis can be seen in table below:

Table 2. Economic Analysis of Cattle Farming

Description	Average Total (Rp)	Percentage (%)
Fixed cost		
a. Rent a cage	108.000	95,58
b. Electric fee	5.000	4,42
c. Total Fixed Costs	113.000	100
Variable Costs		
a. Purchase of Livestock	25.270.000	69
b. Feed	10.800.000	30
c. Health care	300.000	0,05
d. Artificial insemination	200.000	0,04
e. Total Variable Costs	36.570.000	100
Total Cost (Fixed + Variable)	36.683.000	
Gross Income	28.612.000	
Net income	-8.071.000	

Source: Data processed, 2023

Table shows that the cattle farming business carried out by respondents has not made a profit because the net income received is minus IDR 8,071,000 for one season (six months), or an average of IDR 1,345,166.67 per month. This is because cattle prices have fallen since the FMD (Foot and Mouth Disease) attack. However, respondents continue to keep cattle as family savings which will be sold when prices return to normal.

Income from Other Businesses

Farmers' net income from businesses other than horticultural farming or cattle farming is calculated based on the net cash income received per month minus monthly cash expenditure as shown in Table below:

Table 3. Income from Other Businesses Obtained

No	Description	Average Total (Rp)	Information
.	Cash receipts	14.485.714	
.	Cash disbursement	4.971.429	6 months
.	Net income	2.664.000	

Source: Data processed, 2023

Table above shows that cash receipts received by respondents amounted to Rp. 14,485,714 with cash outlays of Rp. 4,971,429, and net income received by respondents was Rp. 2,664,000. Respondents' income from other businesses is additional income that can increase the income of farming families.

Family Income

In this study, family income was obtained from the net income of horticultural crop farming plus the net income of the cattle breeding business and the addition of net income from other businesses received by the respondents.

Total net income received by respondents from horticulture farming was an average of Rp. 39,368,896 (115.92%), net income from cattle farming was an average of Rp. -8,071,000 (-23.76%), net income from cattle farming others an average of Rp. 2,664,000 (7.84%) so that the total Family Earning received by respondents is an average of Rp. 33,961,896 for six months or an average of Rp. 5,660,316 per month. The size of the respondent's family income can be seen in Table below.

Table 4. Family Income of Respondent Farmers

No	Description	Average Total (Rp)	Percentage (%)
.	Horticultural Farming Net Income	39,368,896	115.92
.	Net Income from Cattle Breeding Business	-8,071,000	-23.76
.	Other Business Net Income	2,664,000	7.84
.	Total Family Earning	33,961,896	100

Source: Data processed, 2023

From Table above it can be seen that the income of the respondents from the cattle ranching business which experienced losses can be covered by the income of the horticultural crop farming business plus the income of the respondents from other businesses. Table 3.4 also shows that the income of the respondents from horticultural crop farming is large enough to meet the needs of the respondent farmer households even though cattle farming has not provided a profit.

Contribution of Cattle Breeding Business to Family Income

The magnitude of the contribution of cattle farming to the income of farming families can be seen in Table below:

Table 5. Contribution of Cattle Breeding Business

No	Uraian	Nilai	Keterangan
.	Pendapatan Bersih Usaha Peternakan Sapi	Rp-8.184.000	
.	Family Earning (FE)	Rp33.961.896	Mengurangi FE sebesar -23,76%
.	Kontribusi Usaha Peternakan Sapi (%)	-23,76%	

Source: Data processed, 2023

Table above shows that the cattle farming business has not economically contributed to the income of farming families. This is because at the time the research was conducted the price of cattle was experiencing a significant decline. However, this situation did not dampen respondents' interest in raising cattle. According to respondents, cattle prices often fluctuate. When prices are falling, respondents choose not to sell their cattle, respondents will sell their cattle when prices return to normal. Thus, for respondents keeping cows is an alternative to family savings.

Correlation Analysis between Cattle Breeding Business and Farmer Family Income

To determine the level of correlation and the closeness of the relationship between the cattle farming business (X) and the farmer's family income (Y), a simple correlation statistical analysis was carried out. From the analysis, the correlation coefficient (r) is 0.10641. This means that cattle farming has a very weak relationship with the income of farming families. This is in accordance with the table of levels of correlation and closeness of relationship which refers to the opinion of Siregar (2012), as in Table below:

Table 6. Correlation Coefficient Result

Correlation Coefficient (r)	Relationship Level
0.00-0.199	Very weak
0.20-0.399	Weak
0.40-0.599	Enough
0.60-0.799	Strong
0.80-1.000	Very strong

Sumber : Siregar (2012)

The correlation coefficient (r) between the cattle farming business and the farmer's family income is positive (+). This means the hypothesis proposed previously, where "there is a negative correlation between cattle farming and farming family income; or in other words, the higher the income of a farming family, the smaller the contribution of the cattle farming business," is not proven because the cattle farming business has not been profitable as a result of the drop in cattle prices in the last few months.

CONCLUSION

Based on the results of the research carried out, the following conclusions were obtained Farmers' net income from farming horticultural crops during one growing season (six months) averages IDR 39,368,896 or IDR 6,561,482.67 per month. From the cattle farming business, farmers suffer losses amounting to IDR 8,184,000 for six months of maintenance or an average of IDR 1,345,166.67 per month. This is because cattle prices have fallen since the FMD (Foot and Mouth Disease) attack. However, farmers continue to raise cattle as an alternative for family savings. Farmers' net income from businesses other than horticulture crop farming and cattle breeding businesses averaged IDR 2,664,000 for six months or an average of IDR 444,000 per month.

The total income of farming families (Family Earning) from all activities carried out by farming families is an average of IDR 33,961,896 for six months or an average of IDR 5,660,316 per month. The contribution of cattle farming to the income of farming families is equal to -23.76%, this means that the cattle farming business does not contribute to the income of farming families and even reduces family earnings by -23.76% per season (six months). The results of the correlation analysis between the cattle farming business and the family income of family farmers obtained a correlation coefficient (r) value of 0.10641, which means that it has a very weak relationship. The results of this correlation analysis also show that the proposed hypothesis, where "there is a negative correlation between the income of a cattle ranch business and the income of a farmer's family; or in other words, the higher the income of the farming family, the smaller the contribution of the cattle breeding business is not proven because the correlation coefficient (r) obtained is positive.

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