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CHARACTERISTICS OF DAIRY COW FARMERS AND FARM INCOME IN TWO AGROECOSYSTEMS

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ABSTRACT

Nowadays, the roles of dairy farm still become side business even though there are some people who already make it become main business. This study aims to examine the characteristics of farmers, income, revenue and cout ratio (R/C) of dairy farming in two different agroecosystems in Garut Regency. This study used the survey method. In total, there were 18 farmers in the dry land wetland agroecosystem (AES DL-Rainfed), and 95 farmers in the irrigated dryland agroecosystems (AES DL-IRF). Data were analyzed using the income formula, comparative analysis between revenues and cout s (R / C ratio). To test for differences in income and the R/C ratio, the student T-test was tested and explained descriptively. The results of a study conducted on dairy cow farmers at AES DL-Rainfed and AES DL-IRF in Garut Regency, it can be concluded that: farmers' characteristics, age, and education at AES DL-Rainfed are good, while dairy cow farmers at AES DL-IRF are more experienced and results showed that the income of AES DL-Rainfed farmers had higher income than AES DL-IRF farmers. The ratio of business cout receipts shows that the dairy cow business in AES DL-IRF is more efficient than in (AES DL-Rainfed).

Keywords: Income and R / C, Dairy Cow, Agroecosystem.

INTRODUCTION

Dairy cow are now widely distributed and cultivated in various regions with diverse agroecosystem characteristics, both in highland and lowland areas (Firmansyah et al., 2025). The presence of dairy cow is not only dependent on the physical conditions of the area but is also greatly influenced by the social and economic factors of the local community. Interestingly, the distribution of dairy cow populations tends to be concentrated in two very contrasting types of areas: first, urban or sub urban areas of large cities that are physically less ideal ambient, such as being hot and densely populated, but have good economic access, markets, and infrastructure; second, rural areas in mountainous regions that are ambient

ally very supportive with cool temperatures and availability of forage land, but limited in terms of economic access and supporting livestock facilities. This phenomenon is also reflected in Garut Regency, where the dairy cow population in 2017 was recorded to have nearly 14,000 heads spread across several subdistricts, primarily in highland areas and a small portion in medium to lowland areas (Nadia, 2025).

Mout dairy cow farms in Garut are still managed by small-scale farmers with limited cow ownership, averaging only 2–3 lactating cows, and are generally operated under a semi-intensive system (Munawarah et al., 2025). This system indicates that dairy farming has not yet become the primary business for mout farmers, but rather a side activity or a supplementary source of household income. In fact, dairy cow play a significant role as a source of animal protein and local economic potential. Unfortunately, various structural and technical challenges continue to hinder the improvement of farmers' welfare (Yeipsta et al., 2025). These challenges include the high cout of concentrated feed, which leads to elevated production cout s, low cow productivity due to suboptimal maintenance, low and unstable prices for fresh milk, limited land and forage availability, and business scales that are too small to achieve economic efficiency (MaSTura et al., 2025).

Moreover, mout dairy cow farming activities are still carried out using traditional methods, without support from modern technology or good business management. Limited access to information, training, production technology, financing, and assistance programs from both the government and private sectors worsens this situation (Sundawati et al., 2025). Supporting facilities such as barns, milking equipment, milk cooling systems, and road access are still minimal in some areas. Additionally, market access is a major challenge, both in terms of selling milk and obtaining production inputs such as feed and medicine. All of these factors directly or indirectly affect business efficiency and hinder the increase in income for smallholder dairy farmers (Denada & Surjowardojo, 2025). Therefore, synergistic and sustainable efforts from various parties are needed to improve production systems, expand access to resources and information, and create policies that support the economic empowerment of small-scale farmers (Hapsari et al., 2025).

The production cout s and income generated from dairy cow farming are influenced by various factors originating from within the farm itself, from the external ambient, and from the way the farm is managed. Variations in production costs, livestock productivity levels, and business revenues are closely related to the geographic conditions, location, and ambient environmental characteristics characteristics of the farmers' residences (Ifani et al., 2025). Therefore, the agroecosystem in which the farm operates has a direct impact on the level of income that can be achieved. Several key factors play a vital role in determining the success of a dairy farming system, including the selling price of milk, the availability and quality of feed, institutional development such as cooperatives,

the amount of input subsidies or assistance, access to financial institutions, and the community's perception of farming as a profession. Furthermore, efforts to scale up farming operations are significantly influenced by individual characteristics such as the farmer's age, milk production volume, and the number of cow owned (Rifqhi et al., 2025).

Various previous studies have examined the income aspects of dairy cow farming. One study reported that smallholder farmers in Klaten Regency earned an annual income of IDR 13,477,500, with an average ownership equivalent to 5.62 adult cow and an R/C ratio of 1.38. Another study found that the economic performance of dairy farming in Kuningan Regency was relatively good, where farmers participating in the KUNAK program earned approximately IDR 86,623,967 in 2017 with an R/C ratio of 1.98, while individual farmers earned IDR 48,136,000 with an R/C ratio of 1.87. There was a noticeable income gap between the two groups, although the R/C values were not significantly different. Research conducted in Cicadas Village, Sagalaherang district , Subang Regency, showed that dairy farming in the area had an R/C ratio of 1.74, indicating that the business remained profitable. In Baturaden district , the annual income of farmers was recorded at IDR 31,532,084 with an R/C ratio of 2.21. Meanwhile, the performance of dairy cows with an average daily milk production of 9.28 liters and a selling price of IDR 4,700 per liter could generate an accounting profit of IDR 7,758,862 per lactating cow per year (Kewo & Akay, 2025).

If farmers sell milk to cooperatives at prices ranging from IDR 2,800 to IDR 3,200 per liter, a favorable economic profit can only be achieved if milk production per lactating cow exceeds 13.5 liters and 12.0 liters per day, respectively, for each corresponding price. Farmers' income is significantly influenced by the amount of labor invested and the number of livestock owned, with the number of cow proven to be the mout decisive factor in increasing income. Moreover, small-scale dairy farming in urban areas—such as in Kebon Pedes district , Bogor City—tends to yield less profitable results compared to medium- to large-scale dairy farms (Kartiawan et al., 2025).

A study conducted in Ngancar District, Kediri Regency, showed that the average annual income of dairy farmers varied according to the scale of livestock ownership. For farmers owning around 3.49 livestock units (LU), the annual income reached approximately IDR 13 million; for those with 6.75 LU, the income rose to nearly IDR 30 million; and at a larger scale of 12.75 LU, the income exceeded IDR 57 million. The R/C ratio also increased with the scale of the enterprise—1.63, 1.73, and 1.77, respectively. Meanwhile, in Cipogo District, Boyolali Regency, dairy farming with an average ownership of three lactating cows still yielded a decent profit for farmers. Various other studies have also shown that dairy farming is both profitable and efficient, whether managed within dairy cooperatives in West and East Java, in the Getasan and West Ungaran areas of Semarang Regency, in dairy goat farming in Magelang Regency, or among cooperative-member farmers in

Semarang Regency. Additionally, the dairy agribusiness in Jember Regency, East Java, also holds promising potential (Sunarsih, 2025).

In contrast to several previous findings, a study conducted in Sleman Regency, Yogyakarta, showed that local dairy cow farming yielded a profit of IDR 565,394.26 per livestock unit (LU) per year, while imported dairy cow farming actually recorded a loss of IDR 84,585.81 per LU per year. The R/C ratio for local cow stood at 1.11, slightly above the break-even point, whereas imported cow had an R/C value of 0.98, indicating that the business was not yet financially viable. Overall, both local and imported dairy cow farming were considered economically unfeasible. This aligns with other findings from Central Java, which show that smallholder dairy farming in the region remains inefficient and has not yet been able to generate optimal profits (Christi et al., 2025).

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To understand the characteristics of farmers and determine the level of income they earn, it is necessary to examine factors inherent to individual farmers, including the farming patterns they adopt, the total revenue earned, and the total production cout s incurred. Therefore, the objective of this study is to identify and analyze the characteristics of dairy farmers, the income they generate, and the efficiency of their farming operations as measured by the revenue-to-cout ratio (R/C) across two different types of agroecosystems.

METHODOLOGY

This study was conducted in two locations with different agroecosystems in Garut Regency i.e. Lebakjaya Village, Karangpawitan District, whith the drylands and rainfed (AES DL-Rainfed); Cintanagara Village, Cigedug District whith the dryland and irrigated rice field (AES DL-IRF) in equal extent as the agroecosystem. The study was carried out from December, 2014 until Maret, 2015. The study locations were selected purposively (purposive sampling), based on the availability of lactating dairy cows in their 2nd, 3rd, and 4th lactation periods owned by members of local dairy cooperatives. The dairy cows were distributed according to their respective agroecosystem locations. The method used in this study is the survey method. A total of 113 farmers were sampled, with all 18

farmers in the AES DL-Rainfed area included in the sample. In the AES DL-IRF area, 95 farmers were sampled. The variables observed included income, production cout s, and dairy farming revenues in the two different agroecosystems.

The data collection techniques used in this study were observation and interviews. The data collected consisted of both primary and secondary data (Rinanti et al., 2025). Primary data were obtained through interviews with respondent farmers, while secondary data were sourced from institstions or agencies relevant to the study. The collected data were analyzed and calculated using income formulas and a comparison analysis of revenue to cout (R/C ratio). To test for differences in income and R/C ratio, a T-test (Student's T-test) was conducted and explained descriptively. To analyze and determine the level of farm income in each agroecosystem, the data were analyzed and calculated as follows:

Descriptive Statistical Analysis

This descriptive statistical analysis was conducted to analyze the data of the farmers characteristics which were taken as samples. Descriptive statistical analysis was conducted to simplify the data in numerical form. Some of the variables analyzed were the characteristics, age, education level, farming experience of the respondent farmers, production and quality of milk produced.

Income Analysis and Business Efficiency

The analysis of income or profit and the R/C ratio (Suratiyah, 2009), it is calculated based on a formula below:

$$\pi = TR - TC$$

Explanation:

π : Income

TR : *Total reveneu*

TC : *Total Cout*

Return Cout Ratio (RCR) Analysis

$$RCR = \frac{Return}{Cost}$$

Explanation:

RCR : *Return Cout Ratio*

Return : Total Revenue

Cout : Total Cout.

RESULTS AND DISCUSSION

General condition of the study locations

The location of this study was in Lebakjaya Village, Karangpawitan disrtrict This location has dryland of rainfed agroecosystem (AES DL-Rainfed). It has agricultural food crops, a few horticultural crops, and located at an altitude of 500-700 mdl with a rain intensity of 1,477 mm/year. The range of ambient temperature between 20,95-28,85^{0}C. The humidity between 59.76-94.26% (measurement results). The distance between this location to the capital city of Garut Regency is about 5 km. The second location is in Cintanagara Village, Cigedug district (AES DL-IRF). It is located at an altitude of 1.000-1.300 mdl with rainfall intensity that is equal to 2.706 mm/year. The range of ambient temperature of the area is between 18,65-26,90^{0}C. The humidity is between 71,26-88,26% (measurement results). In this area, agriculture is dominated by horticultural crops and food crops. The distance between this area to the regency capital is about 17 km.

The Characteristics of Respondent Farmers

The dairy cow business success is also influenced by several factors, including natural resources, human resources, management and technology. All of these factors are related to each other and can support the sustainability of a business. From these factors, human resources have a huge influence on the dairy cow farming business. Therefore, the characteristics of dairy cow farmers in both agroecosystems which include age, level of education and length of farming experience will be discussed and explained. The further details can be seen in Table 1.

Respondents' Age

Farmer's age greatly affects farmer's productivity, the older a person is, the more productive will be, and after a certain age the productivity will decline. Based on the results of this study, the respondents age group in the study location ranged from 20 to 75 years. In Table 1, the farmers' indicates that they are still in the productive age population (aged 15 to 64 years). This condition is closely related to the level of people's productivity in dairy cow farming. As it is known that almout all farming business activities are related to physical ability. Farmers in their productive age will certainly be more productive compared to elderly farmers. This is in line with the results of Sundari and Katamso's (2010) study, who stated that the farmers' age of local and imported dairy cow in Regency Sleman is also in their productive age.

Table 1. The Characteristics of Respondent Farmers in Two Different AES.

No.	Identification	Total of Respondent Farmers			
		(AES DL-Rainfed)		(AES DL-IRF)	
		Person	%	Person	%
	Age (years)				
1.	20-34	9	50	19	20
2.	35-49	5	27,8	47	49,5
3.	More than 50	4	22,2	29	30,5
	Education				
1.	Elementary School	6	33,3	93	97,9
2.	Junior High School	3	16,7	2	2,1
3.	Senior High School	7	38,9	-	-
4.	University	2	11,1	-	-
	Farming Experience				
1.	Less than 5	5	27,7	3	3,1
2.	5-10	7	38,9	41	43,2
3.	10-15	1	5,6	26	27,4
4.	15-20	1	5,6	13	13,7
5.	More than 20	4	22,2	12	12,6

Farmers' Education Level

The level of education is closely related to their ability of using technological innovations. According to Hermanto (2017), education is an investment and an opportunity for human resources to compete in order to get a chance to get a better live. Based on Table 1, it showed that 97.9 % dairy cow farmers in AES DL-IRF was graduated from elementary school, so the use of technology run slowly in the AES. This condition is not much different from the dairy cow farmers in Sleman Regency. 50-62.96% of the dairy cow farmers in Sleman Regency were also graduated from elementary school (Sundari and Katamso, 2010). It is quite interesting that 38.9% of the dairy cow farmers at AES DL-Rainfed mout ly Senior High school and 11.1% were graduated from undergraduate. It means that the use of technology can run faster in the AES DL-Rainfed area.

Farming Experience

Experience is an informal educational process and it is obtained from experienced activities, or information from instructor, trainers, and other farmers. In detail, the level of experience in the dairy cow farming business was presented in Table 1. Based on Table 1, it showed that the experience of farming in the AES DL-Rainfed were 7 respondents (38.9%) with 5-10 years of experience, and in AES DL-IRF were 41 respondents (43.2%) with 5-10 years of experience. While the results of Sundari and Katamso's study (2010), local dairy farmers with 1-8 years' experience were 33.33%, 9-15 years 44.44% and 16-20 years 22.22%. This shows that the dairy farmers in the two agroecosystems are mout ly the farmers. Farmers' with less than 20 years' experience can be considered as their optimal limit and can

be categorized as farmers who are experienced in managing their cow farming business so that they are expected to be able to make effective decisions in managing their production facilities and be more skilled in developing their business so that they can increase their product. Based on this, it can be concluded that the dairy cow farmers in both agroecosystems have long and good experience.

Milk Production and Quality

The results of the study show that the average milk production over a 305-day lactation period per dairy cow in the AES DL-Rainfed area was 3,667.59 ± 655.23 liters, or approximately 12.02 ± 2.15 liters per head per day. In the AES DL-IRF area, the average was 3,556.73 ± 514.67 liters, or 11.66 ± 1.69 liters per head per day. This level of production is considered relatively high when compared to a study conducted in Sleman Regency, where local dairy cows produced an average of 10.73 liters per head per day, and imported dairy cows produced 8.20 liters per head per day (Sundari & Katamso, 2010). The high milk yield observed in the current study is attributed to the favorable climate for FH dairy cows, well-regulated farming practices, and the active role of farmer groups, dairy cooperatives, and supporting agencies in providing intensive training and guidance. Based on these findings, both agroecosystems are considered promising areas for the development of dairy cow farming in Garut Regency.

Analysis of Income and Business Feasibility of Dairy Cow Farming in Two Different AES

An analysis of income and business feasibility in dairy cow farming was conducted to assess profitability across two distinct agroecosystem (AES) types. The evaluation covered one full business year for each farming system within their respective agroecosystems.

Cost

Costs refer to the expenses incurred by farmers during the production process. In dairy cow farming, production costs are divided into variable costs and fixed costs. Variable costs are the actual expenses paid by farmers within the analysis period (one year), including the purchase of concentrate feed, forage, artificial insemination (IB) services, animal health care, and labor wages for daily maintenance. Meanwhile, fixed costs include annual expenses such as land rent, cowshed construction, the purchase of livestock equipment, the purchase of dairy cow breeds, land and building taxes (PBB), and other similar costs. Fixed costs remain constant each year.

The amount of production cout s spent in this study area was presented in Table 3. The court of feeds such as forage, concentrate, and other raw materials was the largest cost component in the dairy cow farming business. It is 56.28% for AES DL-Rainfed and 64.70 for (AES DL-IRF). This is to the study results by Saefullah., Et al (2012), which state that the cost of feed in dairy cow farming for

members and non-members of KUD in Banyumas Regency is 65.88% and 68.68%. This condition of the proportion of courts is in line with the opinion of Foley., Et al (1973), stated that the cost of feed can reach 50-70% of the total production cost

Table 3. Components Of Production Cout S In Dairy Cow Farming In Two Different AES.

No.	Component	AES DL-Rainfed (Rp)	(%)	AES DL-IRF (Rp)	(%)
A	**Variable Cout**				
1	Forage	3.201.056	11,46	1.762.101	14,53
2	Concentrate	4.818.000	17,24	6.082.821	50,17
3	Other Raw Materials	7.705.556	27,58	-	-
4	Vaselin	322.667	1,15	166.737	1,38
5	IB Service	133.333	0,48	62.113	0,51
6	Cow's Health Service	61.111	0,22	37.895	0,31
7	Manpower	9.700.000	34,72	2.368.421	19,54
	Sub Total	**25.941.723**	**92,84**	**10.480.088**	**86,45**
B	**Fixed Cout**				
1	Cowshed	977.778	3,50	531.053	4,38
2	Seed Value	677.778	2,43	680.000	5,61
3	Milk Can	31.111	0,11	6.737	0,06
4	Tools and Equipment	232.861	0,83	221.939	1,83
5	Land Rent	-	-	-	-
6	PBB tax	6.333	0,02	8.395	0,07
7	Electricity	73.333	0,26	195.158	1,61
	Sub Total	**1.999.194**	**7,16**	**1.643.281**	**13,55**
C	**Total Cash Fee**	**27.940.917**	**100**	**12.123.364**	**100**

Another big cost component is the labor court. It is 34.72% and 19.54% percent of the production cost. The court of feed on dairy cow farming in AES DL-Rainfed is lower than (AES DL-IRF). This is because the amount of feed used is less and the quality of feed ingredients is lower than in dairy cow farming in AES DL-IRF (Table 3). For example, forage uses almost 100 percent agricultural waste (rice straw) which does not require much cost. On the other hand, the labor cost on a dairy farm at AES DL-Rainfed is greater than (AES DL-IRF), this is because more workers are looking for rice straw and handling cows (5.0 ST) than cow farming in AES DL-IRF (2,6 ST). The relationship or the proportion of courts on the two dairy farms in each agroecosystem is quite good because it is in the range of feed cout s (50-70%), the range of labor cout s (20-30%) recommended by some experts (Bath., Et. al., 1978).

Business Revenue

The revenue of dairy farming can be obtained from sales of milk as the main revenue. In addition, it was also obtained from the sale of male calves and the sale of cows. The average revenue for dairy cow farming, during the year in both AES, was presented in Table 4. It showed that the largest business revenue

was obtained from milk sales; it was 80.86% for AES DL-Rainfed and 83.65% for (AES DL-IRF). The amount of revenue from dairy cow farming in AES DL-Rainfed is greater than (AES DL-IRF). This is because the number of productive cow ownership was higher than in (AES DL-IRF).

Table 4. The Business Revenue of Dairy Cow Farming in Two Different AES.

No.	Revenue Component	AES DL-Rainfed (Rp/year)	(%)	AES-LK-SI (Rp/year)	(%)
1	Milk Sales	34.124.811	80,86	17.770.156	83,65
2	Male Calves Sales	6.300.000	14,93	2.210.526	10,41
3	Cow Sales	1.777.778	4,21	1.263.158	5,95
	Total	**42.202.589**	**100,00**	**21.243.840**	**100,00**

Saefullah's (2012) study in Regency Banyumas stated that the average revenue component of cooperative member farmers covers 82.17% of milk sales, while the average revenue for non-cooperative members is 85.29%. Furthermore, Santosa., Et al (2013) reported the results of their study in Musuk district, Boyolali Regency that the business revenue from milk sales is 61.22% and from sales of cows is 27.90%.

Operating Income

Operating income is the difference between revenue and total costs, while the indicator used for measuring the success/feasibility of a business is the analysis of the R/C ratio (Return Cout Ratio).

Table 5. Analysis of Dairy Cow Farm Business Cout s and Revenues in Two Different AES

No.	Revenue and Cout	AES DL-Rainfed (Rp/year)	AES DL-IRF (Rp/year)
A	**Penerimaan**		
1	Milk Sales	34.124.811	17.770.156
2	Male Calves Sales	6.300.000	2.210.526
3	Cow Sales	1.777.778	1.263.158
	Total Revenue	**42.202.589**	**21.243.840**
B	**Cout**		
1	Variable Cout	25.941.723	10.480.088
2	Fixed Cout	1.999.194	1.643.281
	Total Production Cout	**27.940.917**	**12.123.369**
C	**Operating Income (A-B)**	14.261.672	9.120.471
D	**R/C (A/B)**	$1,51^{a}$	$1,75^{b}$

Different superscript letters on the same line indicate significant differences (P < 0,05).

The size of the R/C ratio depends on the revenue and production costs spent to run the business. The average income and R/C value of the dairy farming

business in both AES are presented in Table 5. The average income in each AES is IDR 14,261,672 and IDR 9,120,471 per year, or IDR 1,188,472.67 with an average ownership scale of 5.0 Animal Unit (AU), and IDR 760,039.25 with an average ownership scale of 2.6 AU per month. It can be said that the income is quite low because the amount of profit per month is lower than the Garst Regency Regional Minimum Wage (UMR) (Rp. 1,250,000.00). Operating income in these two agroecosystems is not much different from the study results reported by Mukson, et al (2012); and Haloho., Et al (2013), which stated that the income level of the dairy cow business in Central Java Province Rp. 1,024,095/month with an average scale of ownership of 2.7 cows, income in Getasan and West Ungaran Districts in Semarang Regency is Rp. 737,425/month with an average scale of ownership of 2.4 lactating cows/farmer. The study conducted by Dolewikou et al. (2016) found that the average income based on cash costs earned by members of dairy cow farmer groups in West Ungaran District, Semarang Regency, was Rp 34,708,139.20 per year or approximately Rp 2,892,344.93 per month. Meanwhile, the average income calculated from total cash costs was Rp 4,867,808.92 per year or around Rp 405,650.74 per month. Despite these figures, the income level is still relatively low compared to the average monthly income of dairy farmers in Boyolali, which reached Rp 1,466,307.00 (Santosa et al., 2013).

To increase business income on dairy cow farming in (AES DL-Rainfed), some efforts are made to increase the production, in other words, the productivity and scale of productive cow ownership must be increased. However, many factors are needed to increase the scale, at least to the ownership scale of 4-6 broods. It takes farmers' physical readiness, expertise, and resources to increase their cow ownership, considering that a larger number of cows requires greater input, both for investment and operational cost s. Farmers' management skills (technical, financial, and resource allocation) also need to increase because the larger the scale of production, the more controlled management actions will be required to reduce risks, especially those related to the risk of decreasing milk quality, ambient al degradation and cow productivity.

Although naturally the cow population can be increased, in reality, it is not easy to do for small-scale farmers ((AES DL-IRF)). To overcome the low fresh milk price margin, farmers will rely on another source of income, such as from the sale of breed cows. Nowadays, it is found that many farmers immediately sell offspring cows, and there is even a tendency for farmers to no longer raise replacement stock, so they will immediately receive cash from the sale of calves, on the other hand, they are not burdened with raising non-productive cows. In the short term, it will make the cash flow healthier for farmers, however in the long run it creates new problems because to get a cow, prospective cow farmers have to buy it with quite high funds and usually farmers do not have information or data whether the cow have good productivity or not on the pedigree records of the cow they buy.

The R/C ratio in (AES DL-Rainfed), and AES DL-IRF showed that the R/C is 1.51 and 1.75. The statistical test results of the R/C value in AES DL-Rainfed were significantly different (P <0.05) from the (AES DL-IRF). It showed that the dairy cow farming business in AES DL-IRF is more efficient compared to (AES DL-Rainfed) because the agroecosystem and its cropping patterns support the availability of forage and better maintenance management so that dairy cow productivity is better and the production costs are lower.

The dairy farming business in both AES is efficient because the comparison between revenue and cost is greater than 1. Soekartawi (2002) stated that the value of R/C Ratio >1 indicates that the use of court s is efficient. Research by Haloho., Et al (2013) in Semarang district produced an R / C ratio of 1.40 while in Musuk District, Regency Boyolali is 1.28 (Santosa, 2013). The value of the R / C ratio in the dairy farming business in both agroecosystems is greater than 1 and this shows that all production costs can be covered by the income from the dairy business. Most of the dairy farms in the study area can manage their business by minimizing production costs and maximizing profits. The greater the value of economic efficiency indicates that the greater the efficiency of the business, according to Soekartawi's (2002) opinion that the greater the outpst ratio, the higher the efficiency should be.

CONCLUSIONS

Based on the results of a study conducted on dairy cow farmers at AES DL-Rainfed and AES DL-IRF in Regency Garut, it can be concluded that: farmers' characteristics, age, and education at AES DL-Rainfed are good, while dairy cow farmers at AES DL-IRF are more experienced. Dairy cow farming business income at AES DL-Rainfed is Rp. 14,261,672 per year or Rp. 1,188,472.67 per month with an ownership scale of 5.0 ST, while the dairy cow farming business at AES DL-IRF is Rp. 9,120,471 per year or Rp. 760,039.25 per month with an ownership scale of 2.6 ST. The feasibility of a dairy cow farming business in AES DL-Rainfed and AES DL-IRF in Garut Regency is feasible to be developed with an R/C value greater than one.

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