

The Sources of dairy cows and concentrate feed among the dairy farmers in Sleman Regency, Daerah Istimewa Yogyakarta

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ABSTRACT: The sources of dairy cows and concentrate feed are still becoming the problems in dairy farming. The objectives of this research are to evaluate the sources of dairy cows and concentrate feed among the dairy farmers in Sleman Regency, Daerah Istimewa Yogyakarta. 88 dairy households were interviewed to get the information related with the objectives. 324 dairy cows, owned by the 88 dairy farmers, were evaluated to grasp the sources of them. The results show that the cooperative is the main sources of dairy cows and concentrate feed. More than 60% of dairy cows in the study area are provided the cooperative and more than 70% of dairy farmers prefer to get the dairy cows from the cooperative. The main of the reason that the cooperative becomes the main sources of dairy cows and concentrate feed is that the cooperative allows the dairy farmers to pay the dairy cows and concentrate feed by credit system.

Key words: Source of dairy cows, sources of concentrate feed

INTRODUCTION

In Indonesia, the need to develop the dairy farming is not only an economic process to meet the domestic demand for milk but is also in line with government objectives to increase the farmers income; to create employment opportunities; to increase foreign exchange earning; and to improve the nutritional status of the people. Dairy development is expected to reduce the milk and milk product import and lead to export of processed milk in those cases when the domestic production is high (Riethmuller and Smith, 1999)

Thus, the dairy farming, which can play a key role in improving socio economic status of large percentage of the rural people, has a good scope for development in Indonesia. Unfortunately, most of dairy farmers lack capital proper technology to conduct the dairy farming individually (Sulastr, 2004).

Indonesia dairy farming is based on small farmers. Dairy cows holding is small, with most farmers having three to four heads of dairy cows. Erwidodo and Hasan (1993) mentioned that dairy farming is based on confined rearing of dairy cows with forage grasses being gathered from outside of farm in a “cut” and “carry” system. Concentrate is given to the dairy cows as the supplement in order to increase the milk production.

According to Directorate General of Livestock (2002), one important reason for the low domestic milk production is the fact that the number of dairy cows is low and the animal feed given to the dairy cows is of poor quality. Due to the lack of capital, dairy farmers have some difficulties to increase the number of dairy cow holding and the quality of feed. The sources of dairy cows and feed are always considered as one the problem in dairy farming development. In order to evaluate the sources of dairy cows and concentrate feed among the dairy farmers, the research was done in July, 2009.

MATERIALS AND METHODS

To achieve the objectives, the research was undertaken in area of Warga Mulya Dairy Cooperative, Sleman Regency, Daerah Istimewa Yogyakarta. 88 of 1,133 dairy households were interviewed through a structured questionnaire, on site of observation. The dairy households were interviewed about the sources of their dairy cows and concentrate. The sources of 324 dairy cows that owned by

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the farmers and concentrate were evaluated. The collected data were both qualitative and quantitative. The data were tabulated according to the objectives of the research.

RESULTS AND DISCUSSION

Dairy Cows Sources

The farmers raise dairy cows from several sources. Table 1 shows that more than 61% of dairy cows came from the cooperative. On the other hand, the farmers also produce dairy cows in their farm by artificial insemination. Out of 324 cows surveyed, more than half (199 cows) was provided by cooperative, about one fifth (64 cows) was produced in self farm and one sixth (55 cows) was come from middle man and very few was from *gaduh* system.

Table 1 also shows the important role of cooperative in the dairy cows provision. The cooperative has the calf raising unit to fulfill the need of replacing all and non productive dairy cows and maintain the cow population. The new born calf owned by the breeder is purchased by the cooperative and raised in the calf raising unit and sold or credited to farmers after it is grown up and pregnant. It helps the dairy farmers in reducing the capital constraint on the dairy farming.

Table 1. Sources of dairy cows among the farmers

| Sources of dairy cows | Number of dairy cows (head) | Percentage |
|-----------------------|-----------------------------|------------|
| Farm breed | 64 | 19.8 |
| Cooperative | 199 | 61.4 |
| Middle man | 55 | 17.0 |
| <i>Gaduh</i> | 6 | 1.8 |
| Total | 324 | 100 |

Source: Field Survey, 2009

Note:

- Farm breed, dairy cows are produced in self farm by artificial insemination
- Cooperative, dairy cows are provided by the cooperative
- Middle man, dairy cows come from the other cooperative of East Java, Central Java and West Java through middle man.
- *Gaduh*, the system in which the farmer raises others' dairy cows on profit sharing basis

Some farmers do not sell their female calves but they raise them on their own farm. This is a good sign in dairy development in regard to the fact that the farmers want to raise good dairy cows from calf because they know well the record from the beginning. Due to the limitation of land and lack of time, farmers buy heifer from the cooperative. There are some advantages of buying a heifer from the cooperative, these are: 1) the cooperative gives a guarantee of selling pregnant only, and 2) the farmers can buy the heifer by credit system and they can pay by installment with milk and/or calves.

In the heifer provision, the cooperative has problem that the cooperative was not able to fulfill the demand of heifers. To fulfill the heifers, the farmers buy from East Java, Central Java and West Java through middle man. *Gaduh* system was very common in the study area, even the number was few.

Sources of Concentrate Feed

The basic dairy cow feeding system is grass with concentrate supplement. Concentrate area essential part of ration in addition to dry matter roughages to increase the capacity of milk production per cow. To fulfill the needs of concentrate, out of 88 farmers, 62 farmers (70,5%) use the cooperative concentrate, 9 farmers (10,2%) use the own formulated concentrate as well as 17 farmers (19,3%) use both the cooperative and own formulated concentrate.

The cooperative gives loan to the farmers for buying dairy cows and concentrate feed on the condition of regular supply of milk to the cooperative. It determines that the payback period of loan should be 18 month to be paid daily installment from the sale of milk (10% of its milk produce).

Some farmers mentioned that the cooperative credit for buying concentrate and dairy cows helps them free from extortionate usury and the *ijon system*. Usually, the small farmers pawned their rice fields or their *pekarangan* (garden) that produce coconuts (*Cocos nucifera L*), salacia (*Salacca edulis*), mangoes (*mangifera indica L*), and so on, for getting credit from the *tukang ijon* (money lender). As a result, even before the crops on the field have ripened, their ownership has already fallen into the hands of the *tukang ijon*. By means of the cooperative credit, an attempt has been made to free the members from this intolerable extortion and to prevent those who were free from their debts from being ensnared once more by the *tukang ijon*.

Table 2. Sources of concentrate among the farmers

| Sources of concentrate | Number of farmers | Percentage |
|----------------------------------------|-------------------|------------|
| Own formulated | 9 | 10.2 |
| Cooperative | 62 | 70.5 |
| Both of own formulated and cooperative | 17 | 19.3 |
| Total | 88 | 100 |

Source: Filed Survey, 2009

CONCLUSIONS

The cooperative is the main sources of dairy cows and concentrate feed. More than 60% of dairy cows in the study area are provided the cooperative and more than 70% of dairy farmers prefer to get the dairy cows from the cooperative. The main of the reason that the cooperative becomes the main sources of dairy cows and concentrate feed is that the cooperative allows the dairy farmers to pay the dairy cows and concentrate feed by credit system.

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