



Socialization of Dairy Goat Farming Management in the Dairy Goat Farming Community Receiving Grants from UPZ BAZNAS PT Semen Padang

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Submitted: December 2, 2024

Accepted: February 11, 2025

Published: March 28, 2025

ABSTRACT

The Etawa Dairy Goat Farming Program is one of the Economic Sector programs of UPZ BAZNAS PT Semen Padang by distributing a grant of 42 Etawa crossbred goats (ECG) to seven underprivileged Heads of Families (KK). UPZ BAZNAS PT Semen Padang chose dairy goats because they have high economic potential. Challenges in raising dairy goats include feed management, livestock health, and poor maintenance techniques. The dairy goat maintenance system in the community is traditional. Poor feed quality impacts production, reproduction, and livestock health. To make the dairy goat grant effective, assistance is needed to guide farmers on feed, health, and maintenance so that goat farming can benefit farmers and become a family business unit. The Faculty of Animal Science Service Team and students of the Animal Science Study Program at Universitas Andalas carry out community service activities from July to November 2024. The community service activities method includes surveys, counseling, and activity evaluation. After the community service activities, improvements were seen in feed management, and farmers became skilled at handling scabies in livestock. Based on the community service activities that have been carried out, it can be concluded that farmers' knowledge about dairy goat maintenance management has increased. Farmers are skilled at treating scabies with traditional medicine because it is effective and more economical.

Keywords: Etawa crossbred goats, Padavo village, PT Semen Padang, scabies, UPZ BAZNAS

INTRODUCTION

UPZ BAZNAS PT Semen Padang is a zakat management institution/unit under PT Semen Padang. This unit is tasked with providing services to economically weak communities. There are five zakat distribution programs of PT Semen Padang: Education Program, Health Program, Humanitarian Program, Economic Program, and Da'wah & Advocacy Program. This institution collects, expresses, and organizes zakat funds from all employees of PT Semen Padang. One of the Economic Sector programs of UPZ BAZNAS PT Semen Padang is the Etawa crossbred Goat Dairy Farm, which was launched on 5 March 2024, in Padayo Village, Indarung Village (Figure 1). In this program, UPZ BAZNAS PT Semen Padang distributed grants of 42 ECG dairy goats to low-income families. This program aims

to improve the welfare and economic empowerment of the community. The community groups that received dairy goat grants were residents of Kampung Padayo, Indarung Village, Padang, which is located around the area of PT Semen Padang. Seven heads of families (KK) who benefited from the UPZ BAZNAS PT Semen Padang Economic Field program received six ECGs, consisting of five females and one male goat.



Figure 1. Launching of the etawa dairy goat breeding program

Dairy goats were chosen as a form of assistance because they have high economic potential. Goat milk is known to be rich in nutrients and has many health benefits, so the demand for this product continues to increase. Dairy goats are dual-purpose livestock because farmers can benefit from the offspring produced to be sold as breeding stock or meat goat. In contrast, lactating goats can be milked or sold to meet family nutritional needs (Ratya et al., 2017). Dairy goat farming is ECG to develop as a dairy industry.

Challenges in dairy goat farming include feed management, animal health, and inadequate husbandry techniques. The system of raising dairy goats in the community is still traditional. The livestock's need for forage comes from field grass obtained around the cage with a low crude protein (CP) content of only 3.48-7.60% (Wahyono et al., 2019) far from the nutritional needs of dairy goats according to SNI 8818-2019 that the CP needs of dairy goats are at least 14%. TDN is at least 65% (National Standardization Agency, 2019). Farmers are constrained in providing routine feed supplements from waste from the tofu processing industry (tofu pulp) and tempeh (soybean skin), which contain CP 22.1% and 14.45%, respectively (Puger et al., 2015; Jariyah et al., 2022) due to limited supply and limited production costs. Forage is the main feed in the ration of dairy goats, which plays a vital role in milk production (Prihtiyantoro et al., 2022). Low-quality feed has an impact on production, reproduction, and animal health. Many animals are currently attacked by scabies and mouth disease due to low feed quality and a lack of cage sanitation. The lack of skills and ECG among farmers leads to slow health management, affecting dairy goats' ECG performance and productivity.

To make this dairy goat grant effective, assistance is needed to guide farmers on aspects of feed, health, and maintenance, so that goat farming can benefit farmers and become a family business unit. This Community Service activity aims to increase farmers' understanding of the nutritional needs of dairy goats, introduce quality forage from the legume family (leguminosa) that grows around the farm, and improve farmers' skills in disease prevention and control in livestock. Community service activities provide practical experience for students, such as off-campus learning, developing skills, and collaboration with industry and society.

METHOD

Community Service activities are carried out by the Faculty of Animal Husbandry Service Team and the Andalas University Animal Husbandry Study Program students. Activities take place from July to November 2024. The methods of Community Service activities carried out consist of:

1. Location survey, this is done to find out the condition of the farm and the problems in the field faced by farmers who receive ECG dairy goat grants from UPZ BAZNAZ PT Semen Padang. From discussions in the field with several farmers, the Team designed activities to find solutions to problems around dairy goat farming that farmers are facing.
2. Implementing extension activities includes theory and practice on dairy goat farming management. Extension activities were conducted face-to-face through lectures, discussions, and question-and-answer sessions. The resource person, who delivered the material, was the service team consisting of lecturers from the Faculty of Animal Science, Universitas Andalas, and Animal Husbandry Practitioners who had successfully built dairy goat farms and milk processing since 2010.
3. Evaluation of the success of activities and reporting activities.

RESULTS AND DISCUSSION

1. Location Survey

UPZ BAZNAZ PT Semen Padang collaborated with the Faculty of Animal Science of Universitas Andalas to regularly monitor the ECG dairy goat breeder community in Padayo, Indarung Village. From these activities, farmers lack knowledge about good feed sources. The forage given to livestock is mainly field grass with low nutritional content. Whereas goats prefer forage from leaves, especially leaves from leguminous plants that contain high CP reaching >20%, the availability of leaves, especially from the leguminous family, in the forage served for consumption of dairy goats is still low. Low feed quality impacts production, reproduction, and animal health. Many goats in the dairy goat farming community were observed to be infected with scabies and have low conception rates. The condition of ECGs in the goat farming community can be seen in Figure 2.



Figure 2. Farm conditions in a dairy goat farming community. Low-quality forage from field grass (top), livestock infected with scabies (bottom)

2. Counseling on Dairy Goat Breeding Management

Extension activities were carried out on 5 October 2024 at Mushalla Nurul Ikhlas Kampung Padayo, Indarung Village, Lubuk Kilangan District, Padang. The community activities of the Faculty of Animal Science, Universitas Andalas, are carried out by lecturers and students. The service team invited a dairy goat breeder practitioner to this extension activity. Ir. Febryon Tri Intano, S.Pt., M.Pt., owner of Rantiang Ameh dairy goat farm and Capri Gold dairy goat milk processing, as a resource person. The counseling activity was attended by five groups of families who received dairy goat grants from UPZ BAZNAS PT Semen Padang, as well as students and residents. The counseling aims to increase the knowledge and skills of dairy goat farmers in good livestock management, especially feed management, and increase the motivation of farmers to manage their farms as a growing family business. Proper management is expected to increase milk production, livestock health, and farm business efficiency. The materials in the counseling activities include quality feed, animal health management, and characteristics of healthy males. Through this activity, farmers are expected to understand and be able to apply dairy goat farm management effectively.

On this occasion, the types of animal feed forages other than grasses, such as legumes, were presented. *Leucaena leucocephala*, *Gliricidia sepium*, *Indigofera zollingeriana*, *Calliandra calothyrsus*, and *Moringa oleifera* are some examples of tree legumes that are commonly found around farm locations, either growing wild or deliberately planted to border gardens or community-owned land. Forage from legumes has the advantage of high CP content and low crude fiber (CF) (Noviarti, Reniwati, 2019). Goats usually eat by browsing, which allows them to eat short grass and browse. The leaves of tree and shrub plants have the potential to be used as animal feed because of the high content of CP, amino acids, vitamins, and minerals needed by ruminants, but have not been widely utilized by farmers. Some tree plants have the potential to supplement ruminant feed by increasing energy and nitrogen (N) consumption, feed efficiency, and improving the physical condition of livestock (Marhaeniyanto et al., 2019).

Farmers showed high enthusiasm for the material presented. Many actively asked questions and shared experiences related to problems faced in dairy goat management. Many farmers asked about livestock health, especially scabies that plagues some livestock. On this occasion, participants were given a solution to deal with scabies through herbal medicine with *Gliricidia* extract oil. Farmers also received *Gliricidia* extract oil produced by Rantiang Ameh Farm and were motivated to make herbal medicines independently. Most participants felt more helped and gained new insights after attending this counseling. The counseling activity is presented in Figure 3.



Figure 3. Counseling activities for livestock groups receiving dairy goat assistance

3. Practice Making Traditional Scabies Herbal

Gliricidia leaves grow upright stems, which are often used for firewood; the leaves are oval with a simple compound leaf type and odd-pinnate. The treatment of scabies with the Gliricidia leaf oil extract is straightforward for farmers to do. Gliricidia leaves contain coumarin, a compound that can kill *Sarcoptes scabiei* mites that cause scabies (Sawitri & Yuningsih, 2020). The ingredients used to make Gliricidia leaf extract oil are mature leaves, which are still soft, and palm oil. The ratio of Gliricidia leaves: palm oil is 1:2. Gliricidia leaves are ground/blended first, then mixed with palm oil. The next step is to heat to a boil. After cooling, it is filtered while squeezing so that all the liquid can be taken. The extracted oil is then applied evenly to the skin affected by scabies. The higher the coumarin content, the more effective the treatment of scabies. The process of making Gliricidia leaf oil extract to treat scabies is presented in Figure 4.



Figure 4. The practice of making herbal medicine to treat scabies

4. Evaluation of Activities

After counseling and mentoring activities in the field, improvements in feed management have been seen. Forage for livestock is not only of the natural grass species but has been mixed with leaves, especially legumes. Farmers are already skilled in handling scabies in livestock. After practicing making scabies herbal from the Gliricidia oil extract, farmers began to apply it to livestock regularly every day. Scabbing was seen after treatment, and in the third week, the scabs that had peeled off began to grow fur. The evaluation of the activity can be seen in Figure 5.



Figure 5. Application of leguminosa in forage (A and B), application of herbal medicine to overcome scabies in livestock (C), livestock progress after herbal medicine application (D), scab marks have grown with fur (E)

CONCLUSION

Based on the community service activities that have been carried out, it can be concluded that farmers' knowledge of the management of dairy goat livestock has increased, as seen from the discussion during counseling activities. Gliricidia leaf oil extract is effective in healing scabies. After being applied every day in one-week intervals, there is an improvement on the surface of the skin infected with scabies. Gliricidia oil extract as a treatment for scabies is of interest to farmers because it is made from natural ingredients without side effects, so it is safe to use, especially in pregnant livestock.

The activity sustainability plan for the dairy goat community, assisted by UPZ BAZNAS PT Semen Padang, is to form an independent farmer group, providing continuous assistance until the farm produces milk for commercial use.

ACKNOWLEDGMENT

This activity is funded by the Faculty of Animal Science, Universitas Andalas, by contract number No. 01/UN.16.06.D/PM.01/SPP.RDP/FATERNA/2024 for community engagement activities.

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