Feed Management And Diversification Forage In The Galang Kangin Goat Farm Group, Apuan Village, Baturiti Tabanan

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Abstract.

Goats are potential livestock in Apuan Village, but their development is still constrained by the variety of forage available. The community service partner is the Galang Kangin Goat Group. The contribution provided is education about the management of providing superior forage that suits the needs of goats, planting superior forage, and training in calculating the nutrients of the ration that will be given daily. The activity was conducted on 22 June 2024 using the active participation method. The out put of this activity is that farmers are able to choose superior forage as goat feed, increase the variety of forage, and are able to calculate daily nutrition so that the goats they keep can grow and reproduce quickly..

Keywords: *Feed, Galang Kangin, Goat, Nutrition and Superior Forage.*

I. INTRODUCTION

One of the potential ruminants to be developed in rural areas is goats in addition to cattle. Similarly, in Apuan Village, goats are also farmed by the community as meat producers in addition to Balinese cattle. With the arable conditions of the region, forage for livestock that can grow well in the area around this village. Goats are unique, interesting and easy to raise. As ruminants, goats require more than 70% forage for consumption. [1] states that goat feed can use materials that are not commonly consumed by other livestock. Furthermore, it is also said that these animals are very efficient at converting low-quality feed into high-value products such as meat, skin, milk, and fur. Demographically, Apuan Village is located in Baturiti District, Tabanan Regency, Bali Province, by stretching from north to south in the form of a plateau with an altitude of approximately 650 metres above sea level, with an average air temperature of 27 degrees Celsius with an average rainfall of 46,269 mm / year [2]. The area of Apuan Village is 5.72 Km2 which is flanked by two large rivers, namely the Yeh Sungi River and the Yeh Panan River. With the support of natural conditions and adequate soil fertility, the potential for animal husbandry in Apuan Village includes animals such as cows, goats, and chickens.The development of goats in Apuan Village began in 2021, through the help of goat kids provided by the government through the Tabanan Regency Agriculture Office.

However, over time, not all farm groups that received goat assistance could survive in running their livestock business. This is due to the low level of health of the goats donated to the group. Most of the goats that came were sick and then died. One of the farm groups that still exists to develop goat farming is the Galang Kangin Goat Farming Group. Based on the results of the location assessment, we found that the partner's problems include the lack of management in providing forage that has nutritional content in accordance with the physiological needs of the goats raised, members of the farm group have limited types of superior forage planted on their moorland as goat feed, and farmers also do not have the knowledge and skills in terms of calculating the nutrition of each type of forage to be given daily.Forage availability in Apuan Village is plentiful, but most of it is just common forage with low nutrient content. [3] mentioned that the limitations of animal feed ingredients both in quality and quantity have become a major problem in the development of livestock businesses in general and ruminants in particular. On the other hand, [4], said that efforts to increase livestock productivity require adequate feed, both from grass and legumes.

To produce goats with optimal production both in terms of body weight growth and the number of kids produced, it requires animal feed sourced from forage with adequate quantity and quality. Feed is an important factor in supporting livestock productivity. Feeding sufficient nutrients needed by livestock is expected to produce high livestock productivity [5]. Goat feed can generally be divided into two, namely forage and concentrate feed. Forage feed can be natural grass, cultivated grass and legume leaves, while concentrate feed can be rice bran. Grass is a source of energy for goats. The common type of grass given to livestock is natural grass (field grass). Types of grass that are cultivated (planted) include: Setaria grass, Brachiaria and Clitoria ternatea. In addition to grass, agricultural residues can also be used as a source of power or energy, including: rice bran, cassava peels and leaves, papaya leaves, kale stalks, corn leaves and rice straw. Feed as a good source of protein for goat growth include: peanut leaves, long bean leaves, soya leaves, gamal leaves, turi leaves, lamtoro leaves and calliandra leaves [6].

II. RESULT AND DISCUSSION

The implementation of community service activities carried out was quite successful. This can be seen from the enthusiasm of the participants who are members of the Galang Kangin Goat farm Group who attended on time and they listened to the material provided very well. The same thing was also obtained by [7], where the results of the service carried out also received a positive response from partners. In addition to listening to the counselling provided, they were also actively involved in discussion sessions with the service team. The group discussion method is one method that can be used to convey information more and also provide opportunities for respondents to gather opinions, make conclusions or compile various alternatives [8].

The service activity began with the opening of the event from the group leader followed by the service team. The first material given was about the introduction of the physiological status of goats which was then continued with the management of forage feeding according to the physiological status of the goats raised. After the material delivery session, a discussion was held.The second material, the service team provided material in the form of how to calculate the nutrients of each forage that is given to their goats daily. After the material delivery session, then continued with training to calculate the nutrients of each forage so that the right formulation is obtained as a daily goat feed independently and sustainably. [9] reported that the nutrients contained in plant leaves can be used as a source of protein for livestock to spur growth if given in sufficient quantities. The two activities that have been carried out can be seen in Figure 1.

Fig 1. Counselling Activities to Farmers

After two materials passed, then continued with a break and lunch together to increase intimacy between the Warmadewa University service team and group members. The next session was counselling on the types of superior forage that they have never used as goat feed so far. After completing the presentation of the material, then continued with the handover and planting of several types of superior forage to increase the diversity of forage there. The types of forage donated were indigofera, Pakchong, Bio Grass, Zansibar, and Lamtoro seeds. This forage is useful as the main source of feed ingredients in goats in addition to the provision of concentrates. [10] stated that the provision of forage should be followed by the provision of concentrates to increase the productivity of goats, with a ratio of 70% forage and 30% concentrate.

Fig 2. Handover of Superior Forage Seedlings

Based on the service activities that have been carried out on members of the Galang Kangin Goat farm Group, it is concluded that there has been an increase in knowledge about forage management in goats. So far, group members only provide one type of forage per day without any mixing steps between types of grass and legumes or other leaves. As a requirement for good animal feed forage, forage should be combined. [11] mentioned that animal feed forage is a mixture of leaves with stems, twigs and flowers, which generally come from grass-like plants (graminae), legumes (leguminosae), agricultural waste or forage from other plants. With the extension material provided, they finally know the importance of mixing several types of forage in the daily ration so that it will be able to meet the daily nutritional needs of goats raised according to their physiological status. [12] stated that the type of forage that has a high nutrient content is beneficial to increase goat productivity.

From some of the superior forage species introduced, it appears that they were not aware of the superior forage species that were donated. In addition, there are some group members who do not understand how to plant forages. In planting fodder forage, the size of the planting distance and the number of individuals in one plot affect the development of plant branches [13]. Through superior forage planting activities together with the service team, they finally understood and were able to plant these superior forage types correctly. Through planting superior forage together with the service team, they finally understand and are able to plant these superior types of forage correctly. In Figure 3. below it can be seen that the service team and farmers plant superior forage together while providing hands-on practice how to planting forage correctly.

Fig 3. Hands-on Practice Planting Superior Forage

Through community service activities carried out, it is hoped that members of the Galang Kangin Goat Livestock Group will be able to carry out forage management according to the physiological status of goats, be able to calculate feed formulations appropriately and sustainably for all goats owned. In addition, the introduction of superior forage is expected to increase the productivity of goats raised. This refers to [14] which states that forage is the main feed for goats other than concentrates.

III. CONCLUSION

The community service carried out at the Galang Kangin Goat Farm Group was quite successful. This is indicated by the increase in knowledge and understanding of group members, especially in feeding management, giving forage according to the physiological status of livestock, diversifying forage as a constituent of daily rations in goats, how to calculate the needs of goats for feed. In addition, through the grant of superior forage seeds, group members are now no longer difficult to provide good quality feed to their goats, and can even diversify forage daily.

IV. ACKNOWLEDGMENTS

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