Goat Farming System in Kolaka District, Southeast Sulawesi

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Abstract

This study aims to identify the goat farming system in Kolaka Regency by collecting research data from primary and secondary data. The determination of the research location was carried out by purposive sampling, namely choosing the research location intentionally based on the consideration that the research location had the largest population of goats in Kolaka Regency in 2021. The selected subdistricts were Watubangga, Toari, and Tanggetada Districts. Each sub-district is represented by 3 villages and each village consists of 10 farmers as research respondents. The results of research on goat breeding systems in Kolaka Regency are generally carried out intensively (36.7%), semi-intensively (32.2%), and extensively (31.1%). The characteristics of the breeder include the age of the breeder, a person's education level, feeding, as well as housing.

Keywords: Maintenance System, Goat Livestock, Kolaka

Introduction

Goat (Capra aegagrus hircus) is a small ruminant animal with a fairly high population (Aku et al., 2022) generally maintained traditionally by smallholder farmers (Aku et al., 2021). The condition of the goat farming business has been underdeveloped because the development of goat production is based on a commodity approach (Suparman et al., 2018) which is often inefficient and less able to encourage an increase in the population, income, and welfare of farmers (Inonie et al., 2018).

Kolaka Regency is one of the regencies in Southeast Sulawesi which has a large population of goats. The population of goats in Kolaka Regency in 2020 again got increased by 29,893 heads spread over 12 sub-districts. The population of goats in Kolaka Regency has a different distribution in each region. This is due to differences in topography, climatic conditions, and socio-cultural conditions of each region. The maintenance system carried out by farmers in Kolaka Regency is a semi-intensive, extensive, and intensive maintenance system. One of the challenges that are often faced in raising goats is low productivity. This is due to the low quality of seeds, feed, and maintenance systems. Improvements in management and quality of feed have been carried out by livestock, but this lack of support by improving the quality of seeds. Improvement of seed quality is closely related to genetic quality.

Research Methods

This research was conducted in Kolaka Regency, Southeast Sulawesi Province. The technique for determining the location of the study was carried out by purposive sampling, namely choosing the research location intentionally based on the consideration that the research location represented the location with a population of goats in Kolaka Regency in 2021. The selected subdistricts were Watubangga, Toari, and Tanggetada Districts. Each sub-district is represented by 3 villages for respondent collection.

Supporting data was sourced from primary data and secondary data obtained or collected by researchers directly from farmers through observation and interviews with questionnaires, while secondary data obtained by researchers from the statistical head office, agriculture and animal husbandry service offices were then analyzed descriptively.

Results and Discussion

Kolaka Regency covers land and islands which has an area of 3,283.59 Km², and the water area (sea) is estimated at ± 15,000 Km². The population in Kolaka Regency in 2020 is 256,827 people. The location of goat farms in...
Kolaka Regency is located in all sub-districts, with different areas in each sub-district. Table 1: Age Range of Breeders in Kolaka Regency

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Quantity (Breeder)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-30</td>
<td>18</td>
<td>20.00</td>
</tr>
<tr>
<td>31-40</td>
<td>29</td>
<td>32.22</td>
</tr>
<tr>
<td>41-50</td>
<td>29</td>
<td>32.22</td>
</tr>
<tr>
<td>51-60</td>
<td>12</td>
<td>13.33</td>
</tr>
<tr>
<td>61-70</td>
<td>2</td>
<td>2.22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 1 shows that farmers in Kolaka Regency who are in the age range of 22-30 years are 20.00%, aged 31-40 years are 34.22%, then at the age of 41-50 years are 32.22%, at the age of 51-60 years is 13.33% to the age of 61-70 years is 2.22%. This shows that the average breeder is at a productive age with a good physical condition and mindset to work so the potential to work and manage goat farming is still large. Age affects the physical condition and motivation of farmers and affects the workability of a farmer. Thus, the productive age has a high motivation to know new things that are not yet known and have the physical ability to apply them. Age has an influence on work productivity on the type of work that relies on physical exertion. Breeders with high knowledge, attitudes, and skills are included in the productive age group.

Table 2: Farmer Education Level in Kolaka District

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Quantity (Breeder)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary school</td>
<td>18</td>
<td>20.0</td>
</tr>
<tr>
<td>junior high school</td>
<td>31</td>
<td>34.4</td>
</tr>
<tr>
<td>high school</td>
<td>41</td>
<td>45.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 2 shows that the education level of most farmers is high school education, which is 45.6%, junior high school is 34.4%, and elementary school graduates are 20.07%. These results explain that the awareness of farmers about the importance of education is still relatively low because the level of education of farmers in elementary and junior high schools is still quite high. The level of education determines a person in receiving knowledge and information, the higher the level of education of a person, the higher the knowledge possessed. In general, with higher education levels, productivity will also be high because they are rational in thinking compared to those with low levels of education who find it difficult to adopt innovations and are relatively indecisive in making decisions. Education is a factor that affects business success where education affects the mindset, attitude, and ability of livestock business productivity.

Field observations show that the majority of the population works as farmers so the availability of forage feed sources for goats is quite a lot and is an advantage for farmers in providing forage feed. Forage feed that is usually given to farmers is a type of legume such as Gamal leaf which is easily found around agricultural land.

Forage feed is mostly given to goats in Kolaka Regency. The components of feed used by livestock are called nutrients. Feed serves as the development and maintenance of the body, a source of energy, production, and regulator of processes in the body (Elvanuddin et al., 2018). Feeding time has a very significant effect on body weight gain and the efficiency of using goat feed (Nuriadin et al., 2017). Ideally, livestock should have been fed again after the feed on the previous feeding was exhausted (Kusumawati et al., 2017). Giving forage to livestock will have a significant effect on high body weight gain in a short time (Krisnan & Rahman, 2017).

The cages that are mostly applied by breeders in Kolaka Regency are stage cages with two types including the first individual cage.
which is a separation/placement cage for one animal per cage, this cage is very suitable for fattening business and the second type of cage is a colony cage where livestock goats are housed in one cage. The construction of the cage must pay attention to the condition, construction, and equipment of the cage (Bukhori et al., 2017). The condition of the cage is the shape or model of the cage that usually helps livestock to avoid direct natural disturbances such as wind gusts, rain, and scorching sun. A good cage construction is sturdy, strong, and durable. A good cage is a cage that has good ventilation, strong and good walls, a roof that does not leak, and a floor that is not easily damp (Yunus et al., 2016). Cage equipment is needed to facilitate the maintenance of goats. Goat livestock equipment needed during maintenance is a feeder, drinking place, compost bin, cage door, stairs, and the main room (Wahyuni et al., 2016). The functions of the cage include keeping livestock safe from theft, facilitating livestock management in the production process such as feeding, drinking, cleaning the cage and being comfortable, and keeping livestock safe from theft. (Rizal & Thahir, 2016).

The goat breeding system in Kolaka Regency can provide an overview of the system used by farmers related to the management of the goat livestock business. There are three systems of livestock rearing, namely extensive, intensive and semi-intensive. Intensive system maintenance is often used in beef cattle in Indonesia because it is more efficient in terms of feeding, cleaning the cage, handling disease, and bathing the livestock.

Table 3. Goat rearing system in Kolaka district

<table>
<thead>
<tr>
<th>Maintenance System</th>
<th>Quantity (Breeder)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive</td>
<td>28</td>
<td>31.1</td>
</tr>
<tr>
<td>Semi-Intensive</td>
<td>29</td>
<td>32.2</td>
</tr>
<tr>
<td>Intensive</td>
<td>33</td>
<td>36.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Based on table 3, the results of the research on goat breeding systems in Kolaka Regency are generally carried out intensively (36.7%) where farmers are starting to realize the importance of developing quality livestock so that they can get better results and take care of goats more attention. Then semi-intensive maintenance (32.2%) which is still carried out by some farmers considers that the system is more efficient to implement because in the morning they are released to look for their food and in the afternoon they are put back in cages so that the livestock remains safe from all kinds of dangers, but there are still breeders who raise goats extensively (31.1%) where the extensive maintenance system is very easy to do because the cattle are only released free of charge without any specific treatment.

Livestock rearing systems are divided into three, namely intensive, extensive and semi-intensive maintenance methods (Masrah et al., 2016). Extensive maintenance systems are generally carried out in areas where it is expensive and difficult to build cages (Irwansyah et al., 2016), in favorable climatic conditions, and for a capacity of approximately three to twelve goats per hectare (Basman et al., 2015; Wati et al., 2014).

Conclusion

Based on the results of the research, the goat breeding system in Kolaka Regency consists of three semi-intensive (32.2%) and intensive (36.7%), but there are still farmers who raise goats extensively (31.1%). The characteristics of the breeders include the age of the breeder, the level of one's education and feeding, as well as housing.

References


