Potency of forage development under coconut tree in District of Lolak

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Abstract

Farmers in District of Lolak develop cattle by utilising the land under coconut trees. The area of planting coconut in Lolak District is 7422.81 Ha or 27.98% from area in Bolaang Mongondow Regency. Most of the land under coconut trees is utilised with food crops such as maize. The problem is whether the land under coconut tree has potential for forage development. This research has been conducted with the aim to analyse potential of forage development under coconut. The research material is cattle, land and forage. Cattle are local cattle developed by farmers. Land is land under coconut trees that can be utilised for forage development. Forage is a developed cattle feed. This research has been conducted by using survey method, with data collected are publication data from BPS of Bolaang Mongondow Regency and BPS of Lolak District. The data analysis used is Effective Livestock Development Potency analysis for land under coconut. The results showed that value of PMSL was 6017, PPTR (SL) 2028.01, PM 13263, PPTR ( ) 9274. Based on the research result, it can be concluded that potential of land under coconut trees in Lolak District can still be developed forage for needs of cattle. Need to increase population of cattle accompanied by introduction of forage under coconut trees.

Keywords: cattle, coconut, forage

Introduction

Farmers in District of Lolak develop cattle by utilising the land under coconut trees. The area of planting coconut in Lolak District is 7422.81 Ha or 27.98% from area in Bolaang Mongondow Regency. Most of the land under coconut trees is utilised with food crops such as maize. However, most of the land is left overgrown with weeds. The problem is whether the land under coconut tree has potential for forage development. Land under coconut based on some research results can be improved through introduction of forage. According to Salendu and Elly (2011) land under coconut can be used for forage crops and cattle are very potential to be developed in the land. Forage as the main feed for cattle, its availability is still limited. This is due to low knowledge of farmers about quality of forage. In addition, farmers have limited land area for forage development, as stated by Alfian et al. (2012). Based on that idea, we have done research with aim to analyse the potential of forage development under coconut in District of Lolak.

Methodology

The research material is cattle, land and forage. Cattle are local cattle developed by farmers. Land is land under coconut trees that can be utilised for forage development. Forage is a developed cattle feed. The method used in this research is survey method, with data...
collected are primary data published, BPS of Bolaang Mongondow Regency (2015), and BPS of Lolak District (2015). Analysis of the data used is an analysis of potential for effective livestock development for land under coconut.

Results and Discussion

Cattle need forage as main feed for their growth needs. The development of cattle utilises land under coconut. The development of beef cattle can not be separated from development of agricultural sector (Hartono, 2012). The results of research on the potential for effective livestock development under coconut trees in District of Lolak can be seen in Table 1.

Table 1. The potential of effective livestock development in the coconut tree in District of Lolak

<table>
<thead>
<tr>
<th>Coefficient/Variable</th>
<th>Value of Development Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMSL (The maximum potential of land resources)</td>
<td>6017.01</td>
</tr>
<tr>
<td>PPTR (SL) (The capacity increase in the cattle population by land resources)</td>
<td>2028.01</td>
</tr>
<tr>
<td>PM (The maximum potential based head of family farmers)</td>
<td>13263.00</td>
</tr>
<tr>
<td>PPTR ( ) (The capacity increase in the cattle population by head of family farmers)</td>
<td>9274.00</td>
</tr>
</tbody>
</table>

The data in Table 1 shows value of PMSL for District of Lolak of 6017.01 AU, meaning cattle population, as much as value can be developed when viewed from coconut land resources. Local cattle farming is the mainstay of beef supply so it is necessary to increase the population and productivity of cattle (Santosa et al., 2013). The value of PPTR (SL) is 2028.01 AU, meaning that cattle population can be increased by that value to meet maximum potential of coconut land resources. According to Nugraha et al. (2013), the capacity of ruminants is greater than population of cattle, which is caused during rainy season of forage production is available in large quantities. The value of PM is 13263.00 AU, meaning that cattle population can be increased by that value based on availability of labor which each have 3 UT. The value of PPTR ( ) amounts to 9274.00 AU, meaning that population of cattle based on the farmer's family can be increased by a number of these values.

An increase in the number of cattle has an impact on improving the social status of farmers (Lambert et al., 2012). Cattle is a strategic commodity with double function for dry land farmers (Hermawan and Utomo, 2012) (including land of coconut). The availability of forage land will determine amount of forage feed (Rasminati and Utomo, 2010). The development of cattle farms environmentally friendly and local resource based is a strategic step in realising improvement of the quality and quantity of livestock products (Usuma, 2012). According to Salendu et al. (2012), land use under coconut trees for forage serves as cover crops so that there is no erosion and can increase soil fertility.

Conclusion

Based on the research result, it can be concluded that potential of land under coconut trees in Lolak District can still be developed forage for needs of cattle. Need to increase population of cattle accompanied by introduction of forage under coconut trees.
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References


Hartono, B. 2012. Role of Regional supporting capacity to development of Madura Cattle farming. of Development Economics. 13 316 326.


