

Participation of Sipakainge group members during Urea Molasses Block (UMB) production in Barru District, Barru Regency, South Sulawesi, Indonesia

by S N Sirajuddin

Submission date: 16-Jul-2021 07:22PM (UTC+0700)

Submission ID: 1620321387

File name: in_Barru_District,_Barru_Regency,_South_Sulawesi,_Indonesia.pdf (265.01K)

Word count: 1865

Character count: 10066

PAPER · OPEN ACCESS

Participation of Sipakainge group members during Urea Molasses Block (UMB) production in Barru District, Barru Regency, South Sulawesi, Indonesia

To cite this article: S N Sirajuddin *et al* 2021 *IOP Conf. Ser.: Earth Environ. Sci.* **788** 012196

View the [article online](#) for updates and enhancements.

Participation of Sipakainge group members during Urea Molasses Block (UMB) production in Barru District, Barru Regency, South Sulawesi, Indonesia

S N Sirajuddin¹, S Nurlaelah¹, T Amrullah¹, I Rasyid¹, J Mustabi¹ and Rosmawaty²

¹Faculty of Animal Science, Hasanuddin University, Indonesia

²Faculty of Cultural Studies, Hasanuddin University, Makassar

E-mail: sittinuranisirajuddin@gmail.com

Abstract. This activity aimed to determine the participation of Sipakainge group members in the making of the Urea Molasses Block (UMB) in Barru District, Barru Regency. This activity was carried out on July 2020 in Seppee Village, Barru District, Barru Regency. The activity was attended by 20 members of the Sipakainge group, 5 extension officers in Barru sub-district, and Seppee village officials. The activity was carried out using the FGD (Focus Group of Discussion) method and the activity of making UMB together with group members. The results of the activity showed that the participation of group members was very high by actively discussing the process of making UMB and in making UMB actively.

1. Introduction

Feed factors affect cattle fattening, feed costs ranges from 60-80% of production costs. There are two feeding strategies for ruminants, the first is feeding that is directly used by the body of the livestock, and the second is to improve the balance rumen microbial nutrition [1].

The first strategy is to provide concentrate feed. Concentrate is a feed that is easy to ferment, thereby stimulating the growth of rumen microbes which accelerate the ability to digest crude fiber and increase levels of propionate which is useful in the formation of meat [2]. Concentrate is a feed ingredient or a mixture of feed ingredients that contains crude fiber less than 18 percent, TDN more than 6 percent, and plays a role in covering up the unfulfilled nutrient deficiency from forage [3].

The second strategy is by administering urea mineral molasses block (UMMB). Urea Molasses Blok (UMB) is one type of supplementary feed which is usually composed of various kinds of feed ingredients, both protein and NPN feed ingredients, energy source feed ingredients, vitamin and mineral source feed ingredients [4]. UMMB helps form amino acids needed by cows, increases palatability and feed digestibility [5].

There are several factors that cause mineral deficiency disease, and these are closely related to the maintenance system. Livestock is generally kept by releasing them in the pasture. In the morning the cattle are released into the pasture and in the afternoon are put into pens. The feed given to livestock is only modest. Various research reports indicate that the content of several types of mineral elements in field grass is relatively low. This low mineral content results in insufficient mineral need in the cow's body, causing a mineral deficiency [6-8]. Given the large losses caused when cows experience mineral deficiency, it is necessary to make efforts to handle and prevent mineral deficiency diseases in livestock.



Content from this work may be used under the terms of the [Creative Commons Attribution 3.0 licence](https://creativecommons.org/licenses/by/3.0/). Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

Published under licence by IOP Publishing Ltd

Therefore, it is necessary to know the process of making UMB and group participation in Barru Regency, because Barru Regency is one of the cattle center in South Sulawesi Province.

2. Materials and methods

This activity was held in July 2020 in Seppee Village, Barru District, Barru Regency. The activity was attended by 20 members of the Sipakainge group, 5 extension workers in Barru District, and Seppee village officials. The activity was carried out using the FGD (Focus Group of Discussion) method and the activity of making UMB with group members.

3. Results and discussion

This UMMB is also an additional feed (supplement) for cattle. This supplement material is obtained and formed in such a way that it becomes a hard and compact material. This UMMB is solid and hard, so to consume the livestock, it will lick the UMMB, so that the livestock will get food substances little by little but continuously. This UMMB is also commonly called the candy cow cattle. Benefits of UMMB for Livestock:

- To increase digestibility and consumption of dry matter, organic matter and crude protein in low quality feed.
- Gives stimulation results to consumption of straw-based feed without concentrated supplements and increases straw consumption by 25-30%.
- Improve the digestibility of food substances.
- The fulfillment of micro and macro mineral elements so that they can support reproductive appearance, the growth of the child in the womb, the production of more milk, the growth of children after birth (calf) is good, the time for luteal phase after childbirth can be shortened
- Increase in birth weight for calves whose mother is given UMMB and daily weight gain.
- Giving UMMB to bull cattle has a good effect on the cement produced, which is able to increase the amount or volume of cement

The method of making UMB (Urea Molasses Block) is made by mixing all the ingredients: molasses, urea's, salt, bran, coconut cake, lime, M-Dec until an even dough occurs, then compacted with a mold. This method is done if there are not many molasses used in the composition of the UMMB. The activity of making UMB (Urea Molasses Block) in the Sipakainge group located in Seppee Village, Barru District, Barru Regency is quite enthusiastic to be followed by members of the group and even followed by existing agricultural extension agents in Barru District, Barru Regency. For details on the activities of making UMB in the Sipakainge group, it can be seen in the following Figure 1.

From the picture, it shows that in making UMB, the participation of members of the Sipakainge group is quite high because of the number of members of 20 people, all of them participate in the activity, and this is in accordance with the statement of [9], that livestock development is easier to be realized in groups. A group is a unit consisting of several individuals who have the ability to act on the basis of shared perceptions.



Figure 1. The process of making urea molasses block (UMB) by the community service team and members of the Sipakainge group.

Livestock farmer groups must be supported by good member participation so that the programs given to the group can be carried out properly [11]. Participation of breeders in livestock farmer groups is one of the factors in realizing livestock development. According to Baba [12], the participation of members of livestock farmer groups is needed in counseling and training so that technology adoption can take place effectively. Farmer participation does not only take part in extension activities, but also participates in designing extension activities and has the opportunity to influence decisions in planning and implementing decisions [13]. Participation of breeders in groups is needed to increase group cooperation and improve farmer zoo technical behavior.

Participation of breeders in livestock farmer groups can be seen from the activeness and involvement of members of livestock farmer groups in participating in group activities. Member participation is the willingness of group members to provide ideas, thoughts, time, and materials for the benefit of the group. Member participation in thinking, implementing, and evaluating group performance has a role in the sustainability and success of the group [14]. The activeness of group members can be seen from how much group member contribute thoughts in solving problems faced by the group to decision making, while member involvement can be seen from the presence of group members in every routine meeting and outreach activities that in the group participates.

4. Conclusion

The participation of members of the Sipakainge group, Seppee Village, Barru District, Barru Regency in the making of the UMB (Urea Molasses Block) was quite high because it was attended by all group members, sub-district extension workers and village officials.

Acknowledgment

Thanks to the Hasanuddin University research and community service, Makassar, which has provided community service activities on the PKM-UH scheme.

References

- [1] Preston T R 1995 *Tropical Animal Feeding* (Vietnam: Univercity of Agriculture and Forestry) pp 109-12
- [2] Tillman A D, Hartadi H, Reksohadiprodjo S, Prawirokusumo S, Lebdoesoekojo S 1991. *Basic Animal Food Science* (Yogyakarta: Gadjah Mada University Press)
- [3] Santosa S 1999) *Group Dynamics* (Surabaya: Earth Literacy)

- [4] Directorate General of Animal Husbandry and Animal Health 2012 *The Effect of Complete Feed on Blood Metabolite Levels of PO Cows*
- [5] Syam J, Tolleng A L, Umar 2016 The effect of concentrate feed and Urea Molasses Block (UMB) on hemoglobin in beef cattle *J. Teknosains*. **10** 103-10
- [6] Prabowo A, Djajanegara and Diwyanto K 1997 The effect of concentrate feed and Urea Molasses Block (UMB) on hemoglobin in beef cattle *J. Litbang Pertan*. **16** 53-64
- [7] Little D A 1985 The mineral content of ruminant feeds and potential for mineral supplementations in South-East Asia with particular reference to Indonesia *Ruminant Feeding Systems Utilizing Fibrous Agricultural Residues* R M Dixon (Australia: IDP) pp 77-85.
- [8] Stoltz D R, Muhayan Z and Hidayat W 1993 Small ruminant mineral nutrition in Indonesia *Proc. of Workshop Held* (Bogor: Central Research Institute for Animal Sciences)
- [9] Ilmi, Widjatmiko, and Sumekar W 2015 The relation of goat farmer participation to zootechnic behavior in Pringapus Semarang Regency *Agromedia* **33** 113-22
- [10] Muatip K, Purwaningsih H, Setianto N A, Sugiarto M, Widiyanti R, Safitri L, and Istiqomah W 2019 Organizational commitment of members of the dairy farmer group in Banyumas regency *IOP Conf. Ser. Earth Environ. Sci.* **372**
- [11] Hanifah A, Adi R K dan Rahayu F T 2013 Strengthening the social economy of beef cattle farmers through the adoption of livestock waste processing technology into granular fertilizer Proceedings of the National Seminar Towards a Civil and Sustainable Society (Surakarta: Sebelas Maret University)
- [12] Baba S 2012 The level of participation of dairy farmers in counseling in Enrekang District *JITP2* **1** 39-49
- [13] Farid M 2012 The Influence of Perceptions of Leader's Behavior on the Activity of Dairy Farmer Group Members in Enrekang Regency (Makassar: Faculty of Animal S Science, Hasanuddin University)
- [14] Prasetyo A S, Sumkar W, Kurniasari D A, Musabikin A 2020 Activities and level of participation of members in dairy farming in the Rejeki Lumintu Gunungpati cattle farmer group, Semarang City *J. Agrinika* **4** 186-96

Participation of Sipakainge group members during Urea Molasses Block (UMB) production in Barru District, Barru Regency, South Sulawesi, Indonesia

ORIGINALITY REPORT

14%

SIMILARITY INDEX

7%

INTERNET SOURCES

14%

PUBLICATIONS

5%

STUDENT PAPERS

PRIMARY SOURCES

- 1 S N Sirajuddin, Hastang, V S Lestari, Rosmawaty. "The implementation of a profit-sharing system between beef cattle farmers and the Maiwa Breeding Centre in Enrekang, South Sulawesi, Indonesia", IOP Conference Series: Earth and Environmental Science, 2019
Publication 5%
 - 2 D M Raisa, S N Sirajuddin, A Abdullah. "The relationship between individual characteristics and the performance of animal farm group institutions", IOP Conference Series: Earth and Environmental Science, 2021
Publication 5%
 - 3 K Muatip, H Purwaningsih, N A Setianto, M Sugiarto, R Widiyanti, L Safitri, W Istiqomah. "Organizational Commitment of Members of The Dairy Farmer Group in Banyumas Regency", IOP Conference Series: Earth and Environmental Science, 2019
Publication 1%
-

4

D M Raisa, S N Sirajuddin, A Abdullah.
"Analysis of farmers/livestock groups
institutional characteristics in barru regency",
IOP Conference Series: Earth and
Environmental Science, 2020

Publication

1 %

5

Muhtarudin ., Liman ., Indra Cahya Ardi, Ines
Pangestika, Gusti Aji Wijian, Eli Susanti,
Kusuma Adhianto. "The Effect of Rations
Based on Palm Oil By-products on Rumen
Parameters and Digestibility in Ongole Cattle",
Pakistan Journal of Nutrition, 2018

Publication

1 %

6

ojs.unik-kediri.ac.id

Internet Source

1 %

Exclude quotes On

Exclude matches < 5 words

Exclude bibliography On