

OBSERVATIONS REGARDING THE COMUNICATIONS, INTERACTIONS AND BEHAVIOUR OF BOVINES ON PASTURE

OBSERVAȚII PRIVIND COMUNICAREA, INTERACȚIUNILE ȘI COMPORTAMENTUL BOVINELOR LA PĂȘUNE

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Abstract: In this paper we studied the possibilities of using slag from metallurgical industry as fertilizing resources, in row materials deficit and environmental protection context. Furnace slag and steel slag which result from steel obtaining process on metallurgic plants, were analyzed for establishing fertilizing capacities and for metal content determination. As biologic material, we used cows of the Bruna breed belonging to some households in Varfurile (Country of Arad).

Rezumat: Lucrarea își propune să prezinte câteva particularități comportamentale privind mijloacele și interacțiunile intra - grup, relațiile de dominare, influența temperaturii asupra comportamentului, precum și modul de hrănire, adăparea, rumegarea, repausul, defecarea și urinarea bovinelor aflate pe pasune. Materialul biologic a fost reprezentat de vaci din rasa Bălțată românească și Brună, aparținând unor gospodării particulare din comuna Vârfurile, județul Arad

Key words: comportment, caws, pasture

Cuvinte cheie: comportament, vaci, pășune

INTRODUCTION

Ethology involvement in the research and practice of animal raising represents an element of actuality and novelty.

The knowledge of animal behaviour by the scientists who work in this field is critical because only by adapting their life to the farming technologies and the other way around it can bring to production parameters optimization.

MATERIAL AND METHOD

Research was carried out of bovines stock from the village of Varfurile (Country of Arad) a hill area with a medium yielding natural pasture whose predominant natural flora is constituted by graminaceae.

The biological material was represented by cows of the Bruna breed.

RESULTS AND DISCUSSION

The visual signs are one of the most important communication means for bovines. The body language or the visual signs could imply movement of the entire body or just of some parts of it. The position of the may not play an important part in the communication of the bovine except that of the female in heat.

Bovines use bellowing as a mean to communicate. Most of the sounds are related to frustration and stress (for example the isolated animal in search of other animals or an animal anticipating a pleasing event such as the arrival of the water or food).

The great numbers of olfactive glands present at bovines suggest their importance in the social life. The walking is important in the social life because contains the recognition of the individuals among each other.

The environment examination posture of the cow is manifested by orienting itself towards the hearing and smelling. When getting close to strange object the neck is stretched, the ears are raised and the eyes are focused on the studied object. The visual examination is completed by olfactive inspection.

Body care behaviour is usually individual, rarely associative. Individual care is done by cleaning with the tongue of the nostrils and most of the body. Inaccessible places were cleaned either with the help of rear legs or through association with another cow.

In the pasture cow herds there were observed complex hierarchical relations. In these groups there are a lot of hierarchical structures depending on which animals they come in direct contact with.

The bovine behaviour on pastured is influenced by the way the grazing is organized, by the vegetation quality and quantity and by the climatic factors.

In unfavourable weather conditions both grazing time and green mass quantity are reduced. In very hot days the cows cease the grazing and seek cooler resting spots. In colder or humid days bovines do not lay on the pasture and the resting is taking place in a standing position, animals getting closer to each other.

During the grazing the bovines display a quiet stance, the forwarding steps are short and the snouts are close to the ground. After several chomping movements (around 50 -- 60 bites) the animal is raising the head performing a summary mastication followed by the deglutition.

Bovines are grazing in a more disorganized fashion compared to the bubaline on which the existence of a grazing front is characteristic and the distance between animals is very small. For bovines the distance between individuals can be from 2 to 8 meters or even higher.

During the day the cows have two grazing periods. The morning period lasting till around twelve o'clock (around 3 -- 4 hours), and the second period beginning after four o'clock pm and lasting until eight o'clock pm when they for stables.

For bovines the grazing intensity is not uniform during the day, thus they graze more in the morning and in the evening and before noon and after noon the grazing amount is reduced (figure 1)

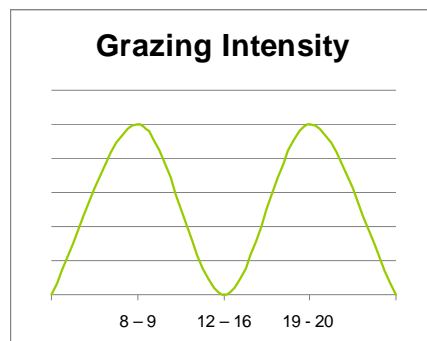


Figure 1: The intensity of grazing period

Regarding grazing time and the distance between bovines we can make the following observations:

- the grazing time is reduced when the grass is abundant and its quality is high.

- the distance between bovines grows up to minimum 10 meters when the pasture is of a poor quality, and consequently the grazing time is considerably higher.

In the summer when the bovines are held out on the pasture feed was administrated in more period as follow (table 1):

- the first feed around 5 am, consisting of hay
- the second feed about a half hour consisting of concentrated feed.
- the third period – feeding on pasture around 4 hour consisting of green grass.
- the fourth period – the second period of pasturing.
- the fifth period – in the evening time consisting of hay.

Table 1

Feeding bovines in pasture regime

Time of feeding	Type of forage	Consumption time
5	fibrous	30 min.
5: 30	concentrated	20 min.
8 - 12	green grass	4 hours
16 - 20	green grass	4 hours
21 - 22	fibrous	30 min.

Resting during grazing is frequent for bovines, resting being the equivalent of the ruminating times. In the unfavourable climatic conditions the bovines are resting in standing position. The main resting time (around 60-80%) is the night time when the animals are sitting.

On the pasture the bovines are resting in groups, animals keeping a distance of 1 to 5 meters one between another.

The rumination is done especially during afternoon 12-16 o'clock and during 22-3 o'clock in the morning.

Ruminating was observed 30 minutes after leaving the pasture, the preferred position being the decubitus sternum abdominal one. We can notice ruminating in standing position too.

The watering occurs twice a day during the hot summer days and only once a day and usually in the morning and evening the bovines are watered at the stables. In general watering takes places after feeding.

If the watering front is large enough then all the animals can drink simultaneously else the dominant individuals will drink first.

The urination and defecation usually take place while standing and the number of urination times is around four to six at the pasture while the defecation is around nine times.

Defecation followed a period of rest and it occurred after the animals stood up, after curving the spine, after raising the tail, after spreading the rear legs and placing them a little under the body, thus limiting the possibility of dirtying with faces. In a few cases defecation took place during movement.

CONCLUSIONS

The obtained results show that leading the bovines on pasture allows a better valorising of the hill and sub - mountain region pastures, acquiring satisfactory milk productions.

The bovine behaviour on pastured is influenced by the way the grazing is organized, by the vegetation quality and quantity and by the climatic factors.

For bovines the grazing intensity is not uniform during the day, thus they graze more in the morning and in the evening, and before noon and after noon the grazing amount is reduced.

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In the pasture cow herds there were observed complex hierarchical relations.

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