

THE ASSESSMENT OF CATTLE'S WELFARE IN HOUSEHOLD UNITS FROM RUCAR – BRAN AREA

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SUMMARY

The researches aimed the cattle welfare assessment in household units from Rucar-Bran area. There were observed 28 animals in 10 shelters, being applied the Austrian ANI 35L system.

The parameters, gathered in 5 areas of influence – locomotion, social interaction, flooring, light and air, stockmanship – were scored by measurements and direct observation of the herds or by last generation devices. In order to assess integument condition we have used a method suggested by Cook N.B. (2002) and for hooves condition the gait score (Sprecher D., 1997).

The final score was 19,25 points, indicating poor welfare of cattle in household units.

Keywords: assessment, welfare, cattle, ANI 35L, areas of influence

INTRODUCTION

At present, the animal welfare issue means for human society not just a far-reaching target, but more and more a necessity due to the fact that consumers and general public became aware that the animal welfare is essential in food safety, public health, environmental protection and biologic diversity.

The main importance of animal welfare issue is proved by the fact that it concerns many governmental or nongovernmental organizations with political, economical, social, technical and professional profiles, such as: UN, through FAO (Food and Agriculture Organization); World Trade Organization; the European Council; the European Union; OIE – World Organization for Animal Health; Codex Alimentarius; World Veterinary Association; World Society for the Protection of Animals; Eurogroup for animal welfare.

As Romania joined European Union, a radical change of the way of thinking and approaching the above subject is welcomed. The long-term strategy for improving the level of livestock welfare in our country should include: increasing the number of in-field assessments, in order to obtain sufficient data for statistical processing; drafting a national welfare database for collecting all livestock welfare relevant indicators, no matter the rearing system; establishing both standard assessment methods and national acceptable welfare levels for different farm animal species, by agreement between all parties involved; including the acceptable welfare levels in animal protection legislation and enforcing it.

In this context, the present study aims to establish the welfare level of cattle (youngster and dairy cows) reared in household units in Rucar-Bran area, collecting welfare data and enlarging the perception of this subject.

MATERIALS AND METHODS

The researches were run during a period of 5 months (July – September 2005 and December – January 2006), on different categories of cattle (youngster and diary cows) housed in 10 shelters from Rucar, Arges county.

The floors of all shelters had in view were divided in 2 areas: a resting area build of wood and a multi-functional area, from concrete (figure 1, A and B). Animals are tied in large stalls at any time during the year, excepting June 1st – September 1st period, when animals are moved on pasture. Feeding and watering are made manually, ventilation is natural, light is exclusively artificial in shelter no. 6 and natural + supplemental in other shelters. Manure collection and evacuation are made manually, except shelter no. 5 which has a manure pit evacuated once a 6 month.



Figure 1. Inner views of Rucar cattle shelters

As Romania has not an official numeric system for animal welfare assessment, we have chosen among various European systems (e.g. Austrian system ANI 35, German system ANI 200, English system used in B.W.A.P. etc.) ANI 35L system, with great applicability and rapidity. The method consists in combining as a sole result engineering-based parameters (details concerning shelter architecture and systems) with animal-based parameters (physiological e.g. condition of integuments, condition of hooves, technopaties or ethological e.g. herd structure and management of the young). Parameters are ranged in five areas of influence – locomotion, social interaction, flooring, light and air and stockmanship – being scored either by measurements, anamnesis data or direct observation of the herds, or by investigations with last generation devices as BK 2250 sonometer (for noises level), Dräger Miniwarn gas-meter (for air quality) and UA6 anemometer (for draughts intensity). In order to assess integument condition we used a method suggested by Cook N.B. (2002) and for hooves condition the gait score (Sprecher D., 1997).

RESULTS AND DISCUSSIONS

The final scores for the assessed shelters in household units from Rucar area are shown in the next table.

Table 1. The final scores for the cattle housed in the 10 shelters in household units

Shelter no./cattle category	Scores /area of influence					ANI 35 final scores	Level of welfare
	Locomotion	Social interaction	Flooring	Light and air	Stockmanship		
1/diary cows	3 points	1,5 points	4,5 points	4,5 points	5,5 points	19 points	Poor
2/youngster 6–12 months	3 points	2,5 points	4,5 points	4,5 points	5,5 points	20 points	Average
3/diary cows	3 points	1,5 points	4,5 points	5 points	5,5 points	19,5 points	Poor
4/ youngster 6–12 months	2,5 points	2,5 points	4,5 points	5 points	5,5 points	20 points	Average
5/diary cows	3 points	1,5 points	4,5 points	4,5 points	5,5 points	19 points	Poor
6/diary cows	3 points	1,5 points	4,5 points	4,5 points	5,5 points	19 points	Poor
7/diary cows	3 points	1,5 points	4,5 points	4,5 points	5,5 points	19 points	Poor
8/diary cows	3 points	1,5 points	4,5 points	4,5 points	5,5 points	19 points	Poor
9/diary cows	3 points	1,5 points	4,5 points	5 points	5,5 points	19,5 points	Poor
10/diary cows	3 points	1,5 points	4,5 points	4,5 points	5,5 points	19 points	Poor
Average value	2,96 points	1,83 points	4,50 points	4,64 points	5,50 points	19,25 points	Poor

As the herds had not an equal number of animals, the scores for each area of influence and the final scores are calculated as dispersed average values, in order to reveal the general status of all animals.

The final score is 19,25 points, value between 16 and 20 points, so the welfare of cattle is poor. Regarding the scores for the areas of influences, the critical values are: 2,96 points of 10,5 points maximum for locomotion and 1,83 points of 10 points maximum for social interactions.

The main animal housing and management deficiencies are the following: the lack of outdoor spaces, the use of tether system, small space allowance and herd structure based on production or age groups.

CONCLUSIONS

1. The level of cattle welfare in household units from Rucar-Bran area must be improved by measures addressing to housing and management critical situations. This implies the using of loose system instead the tether system, increasing shelter usable space, assuring the animal access to paddocks, keeping the sucklers and youngster with cows (natural group structure).
2. The results of the study prove that in some household units in Romania the welfare is poor, animal rearing still being archaic, without a scientific base. The cause is that the rural population does not understand that welfare is a necessity, both ethical and economical.

3. The present study also demonstrates that a numeric system of welfare assessment is perfectly applicable to in-field conditions of Romania, such a national system should be drafted in our country too.

REFERENCES

1. Bartussek, H. – *Animal Needs Index for Cattle ANI35L/2000 – Cattle*, Federal Research Institute for Agriculture in Alpine region, BAL Gumpenstein, A 8952 Irdning, 2000
2. Teusdea, V. – *Bunastarea si protectia animalelor*, Editura Omega Print, Bucuresti, 2005
3. Teusdea, V. – *Igiena veterinara, vol. I. Cerinte si masuri de igiena generala*, Ed. Omega Print, București, 2004