

**SOME ASPECTS ABOUT ANIMAL WELFARE AND ENVIRONMENT
PROTECTION AT ONCE HOLSTEIN-FRIZA AND B.N.R. EXPLOITATION**

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Abstract

Exists different welfare degrees (complete, precarious and very precarious); the animals which lives in same conditions can pass from a welfare level to another, according to physiological and behavior necessities because the organism have different adaptation methods and answers (Sas E, 2005).

Key words: welfare degrees, freedom movement, social relationships

INTRODUCTION

Welfare is own individual status as long as exist an accommodation effort according to own necessities, environmental particularities and path to perceive the information (Decun, M., Crăiniceanu, E., 1984). Exists different welfare degrees (complete, precarious and very precarious); the animals which lives in same conditions can pass from a welfare level to another, according to physiological and behavior necessities because the organism have different adaptation methods and answers (Sas E, 2005).

MATERIAL AND METHODS

The study was made in Lechinta, Bistrita-Nasaud County at S.C.Hyperion S.R.L. farm. The observations were made in summer camp and a free stabulation stable which exist for cold period. The farm has 120 heads from Holstein-Friza breed (40) and B.N.R. breed (80), added the afferent youth. In this farm lives a B.N.R. cow which is county recorder for milk quantity – 62 l/day (fig. 1).



Fig.1. County milk recorder cow from B.N.R. breed

As evaluation model for welfare we used Tiergerechtheitsindex (TGI) which means „animal necessities index”; about environment protection we evaluate manure management (Decun, M., Crăiniceanu, E., 1984, Sas E, 2005). In fact, to use T.G.I. don't suppose all necessities evaluation for each farm animal but especially shelter conditions which have a major percent in welfare assurance. The welfare level is evaluated based on following 4 factors group: movement freedom; social relationship; type and characterize of floor, paddock and pasture; microclimate conditions.

The evaluated factors from freedom movement group were: the available surface and rest zone comfort (in our case are bovines growers and exploited in free stable system – milk cow with horns or no, milking calf and youth); assurance of access in paddock and pasture (Georgescu, Gh. et al, 1984, Silvaş, E., 1998).

RESULTS AND DISCUSSION

The evaluation of freedom movement is made based on parameters presents in table 1.

Freedom movement evaluation

Table 1

Stable system	Free stable system				Assurance of access in paddock and pasture		
Points	a				b	c	d
	Available surface (m ³ /UA)				Rest zone comfort	Assurance of access in paddock (days/year)	Assurance of access to pasture (days/year)
	Hornless milk caws	Horn milk caws	Milking calves	Youth			
3	≥8	≥9	≥7,5	≥6	High	≥270	-
2,5	≥7	≥8	≥6,5	≥5	High	≥230	-
2,0	≥6	≥7	≥5,5	≥4	Medium	≥180	-
1,5	≥5	≥6	≥4,5	≥3	Medium	≥120	Alpine pasture ≥120
1,0	-	-	≥4,0	≥2,5	Low	≥50	≥50
0,5	-	-	-	-	Low	-	≥30
0	≤5	≤6	≤4	≤2,5	Very low	-	-

In the summer, the animals are on pasture the whole day and in the night at one paddock (60 m x 4 m) where the owner has 2 milking canes devices (fig. 2, 3).



Fig.2. Milking canes group

From freedom movement point of view, the studied farm gives 3 points.



Fig.3. Paddock with milking canes groups

As well, the cows going to pasture started with end of April till end of September or beginning of October.

Regarding to manure, in summer camp those are integrated directly in soil-plant-animal cycle because the pasture area is moved daily in this way is avoided soil setting and fresh manure accumulation on small surface.

The shelter for free system exploitation offer following facilities to animals: free access to movement space from shelter and/or paddock; individual rest space or a common surface destined to this purpose; milking in hygienic conditions; tie for control and treatments; defecating and urinating out of rest zone; fresh air, space, silence; feed and watering, body cleaning; light as appropriate is can to natural light; manure evacuation in easy way; mechanization for most of work; ergonomic condition to work (Gligor, V. et al, 1965, Georgescu Gh et al, 2005, Man C., 2000)

At Hyperion farm weren't detected abnormal rest positions, stand up positions and the status of animal skin was very good, especially in zone expose contact with rest surface.

Shelter evaluation from point of view of animal comfort and hygiene shows a high scores (3 points) because the shelter respect the standards regarding constructive elements (EN 12737), type and elasticity of floor and hygiene.

Regarding youth, these are constitute from own calves which have a permanent contact with them mothers; they are separated from those only in pasture period.

This type of social relationship has a major influence about animal behavior from this age group; as group structure, bovines from studied farm were constitute from groups without bulls – is used only artificial insemination, and family groups constitute from mothers accommodate with them daughters. From this reason score was 1.5 (compares 2 maximum) because the group haven't a natural structure (was noticed the absence of bulls for natural insemination) (Cod de bune practici agricole, 2003, Man C. et al, 2002).

CONCLUSIONS

From what we observe at Hyperion farm, we can make the following recommendations for free stable system exploitation: to assure a total surface (shelter and paddock) to 20 m² for each cow; eliminate the shelter lofts; natural light assurance; optimum high of mane roof; assure of natural ventilation; avoided condense in cold period (Ionescu, Al., 1982, Georgescu Gh., 2005); the paddock or shelter must be construct in such a way so allowed manure evacuation by bulldozer razors or evacuation with grades of a channels; construct shelter so that allowed a rational flow for food supply, milking and manure evacuation for each farm, according to animal needs (Sas E, 2005).

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