

## GOOD PRACTICES IN RAISING CATTLE IN "HAȚEG COUNTRY" REGION

BĂNEȘ ADRIAN<sup>1</sup>, RAICOV MIROSLAV<sup>1</sup>, FEHER ANDREA<sup>1</sup>, MATEOC-SÎRB  
NICOLETA<sup>1,2</sup>, ORBOI MANUELA-DORA<sup>2</sup>

<sup>1</sup>Romanian Academy – Timișoara Branch, 24 Mihai Viteazu Blv., 300223, Timiș, Timișoara

<sup>2</sup>Banat's University of Agricultural Sciences and Veterinary Medicine "King Michael the 1<sup>th</sup>"  
from Timisoara, Faculty of Management and Rural Tourism, 119 Calea Aradului, 300645,  
Timis, Timisoara,

\*Corresponding author's e-mail: miroslav.raicov@academiatm.ro

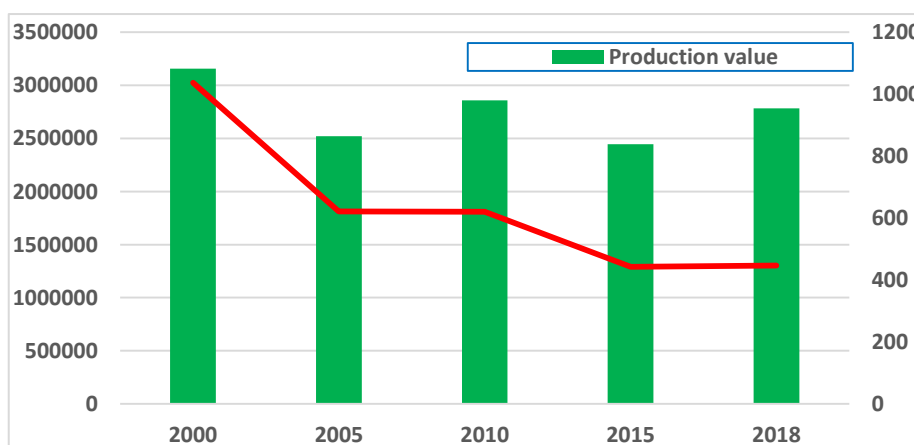
**Abstract.** The paper analyzes the recent evolution, as well as the current situation of the Denis cow farm, from Peșteana village, Densuș commune. The researches carried out, by data taken from the field and by the ones existing at the Institute of Statistics, and from the town halls of communes. The data taken from the field analyzes the endowment, the modernization works, the obtained products, as well as the problems that the company faces.

**Key words:** good practice, cattle, Hațeg Country

## INTRODUCTION

After 1989, there was a decrease in the number of animals, a process that strongly affected the Romanian zootechnics sector and which, unfortunately, continues even today [1, 2].

This process of decrease is one found at the level of the whole country, in 2018, Romania being in the tenth place in the European Union in the cattle livestock, with a number of about 2 million heads, respectively on the antepenultimate place at their density at 100 ha land, 15.6 heads, the only weaker countries being Bulgaria (11 heads) and Greece (14.2 heads) [8]. In Densuș commune, like in the whole "Hațeg Country" (Hunedoara County), the national trend has been mainly respected, large decreases being recorded in cattle and pigs livestock, these reaching to a number of about 60% in 2018 compared to 2000 [11, 12, 15].



**Figure 1.** The evolution of livestock (no) and production value (mil. RON) in Densuș, 2000-2018

The structure of the land fund of Țara Hațegului is characteristic of the depression areas where mixed landforms dominate, the agricultural and non-agricultural land having almost identical weights with a slight increase of the non-agricultural land.

The structure of the arable land is specific to the hilly and mountainous areas, where the mountain meadows have the highest share of agriculture (76.6%), and the

natural meadows 29.2%. Therefore, the dominant vegetal resource of “Hațeg Country” is represented by the natural meadows - the basis of the development of animal breeding, mainly of herbivores: sheep, goats, cattle. It is worth mentioning that out of the total non-agricultural area, 81.4% represents the area occupied by forests, and the difference of 18.6% (15240 ha) is represented by the gloss of water, constructions, roads, degraded and unproductive lands, etc. [3, 4].

### MATERIALS AND METHODS

The data presented in the paper were taken after the face-to-face discussions with the administrator, as well as with the persons directly engaged in the company's activities and were supplemented with those existing at the town halls. These data were sorted and compared with those reported at local and regional level, as well as with those provided by various national and international statistical data sources. This accumulation of data and information has been compared and processed, in order to obtain an image as close as possible to the reality of the development of society from the beginning to the present day, as well as to highlight, as accurately as possible, the problems it faces.

### RESEARCH RESULTS

Densuș commune is located in the central-western part of Hunedoara County, located at the foot of Poiana-Rusca mountains, having as relief the extensions of the radial peaks of the mountains that unfold in the form of a fan that is lost in the depression of “Hațeg Country”, similar to a plain. The climate, in general, meets the characteristics of the mountain area with the four seasons, with a temperate-continental character with sub-mountain specificity. The precipitation regime is quite rich, being characteristic of the areas at the foot of the mountains [5, 6].

The administrative territory of the commune covers an area of 13,612 ha and consists of seven villages: Densuș, Criva, Hățăgel, Peștenița, Peșteana, Poieni and Stei, these being located at an altitude between 400 and 600 m and having a population, in the year 2020, of 1782 inhabitants [13, 14].

The largest cow farm in Țara Hațegului is located in Densuș commune, Peșteana village, at the foot of the Retezat Mountains. Denis Farm is part of the group of ADO farms, with a total herd of 800 cows of the Romanian Bălțată breed, of which 400 dairy cows [9, 10]. The farm was founded in 2013 on the site of an old cow farm that belonged to IAS Hațeg. At present, the shelters have been completely modernized and a milk processing factory has been built on the farm for various dairy products.



**Figure 2. Cow Shelters at Denis Farm**  
(photo: Adrian Băneș)

The cows are raised in an intensive system, kept in large stables, well ventilated, on different production batches, in order to make a differentiated correct feeding. The comfort of the cows is ensured by rubber mats.



**Figura 3. Rubber mats in shelters and collection basin, Denis farm**  
(photo: Adrian Băneș)

Feeding is done with the help of technological trailers, with silo corn, alfalfa and hay. Separately, for each batch of cows, are administered soybean, sunflower meal as well as vitamin-mineral premixes. The fodder base is provided in proportion of 70% of its own production, obtained from the 560 ha of agricultural land, of which 350 ha of arable land, cultivated with corn for silage, grain corn, triticale and alfalfa, and the rest being pastures and hayfields. The farm has two 500 t silos for storing grain, 17 silos for storing corn silage and an FNC (concentrated fodder factory) for concentrated feed. To supplement the feed needs, the farm buys grain and hay from third parties.



**Figure 4. Forage base, Denis Farm**  
(photo: Adrian Băneș)

The farm administrator is constantly concerned with equipping and modernizing it with state-of-the-art machines and equipment, in order to be able to cultivate the owned agricultural area and the care of the animals in the best and most advantageous conditions. For example, the production of silage in 2021 is over 85 t / ha, which is a very high one, both for our country and for the European Union.



**Figura 5. Obtaining the fodder base from their own lands, Denis farm**  
(photo: Adrian Băneș)

The calves obtained on the farm, for the most part, are raised in a very modern stable, in separate individual suspended bunks, constantly monitored. Calves are raised both for the recovery and breeding of cows on the farm and for the sale of pregnant heifers to other farms. Bulls are raised mostly for breeding, having a high genetic value. The owner of the farm is also a shareholder of the Semtest Târgu Mureș Breeding Station, some of the bulls going to it, and another part being sold on the market to the cow farms that practice natural breeding.



**Figure 6. Shelters for calves, Denis Farm**  
(photo: Adrian Băneș)

In the farm, 95% of the cows are inseminated artificially, with semen from Semtest Târgu Mureș, and 5% of the cows, which have reproduction problems, are inseminated naturally. Milking is done in a modern milking room, high-yielding cows are milked three times a day, and low-yielding cows are milked twice a day. The average production per cow is approx. 25 l / day. The milk obtained is processed in its own factory in a proportion of 30%, and the difference is sold to various processing companies.

Own dairy products are obtained exclusively by processing the milk produced on the farm. By processing the milk, the factory obtains a range of over 40 products, as follows: cheeses matured for at least 4 months in Premium classes, with local names Retezat, Peleaga; cream 25% fat; cream 12% fat; yogurt 10% fat; Sana 1.8% fat, 300 ml; Kefir 3.6% fat 500 ml; yogurt 2.8% fat, 170 g; drinking milk 1.8%, 1 l; cottage cheese; fresh telemea (salted cheese); cow curd; pressed cheese matured for at least 4 weeks [7, 9].

The equipment in the processing plant is suitable for obtaining only natural products, which do not contain preservatives, dyes or milk powder, with short shelf life. Telemea type cheeses and certain cheeses are aged for 6 to 12 months. During the maturation process, the cheese is left to rest on the wood and rotated manually weekly so that they obtain the ideal color and taste, 80% of the production being done by manual processes. The factory also accredited cow's milk as a "mountain product".

The products obtained are sold through their own stores "ADO FARMS" in Deva, Hunedoara, Călan and Alba Iulia, and the milk from ADO farms can also be found at ADO dispensers in Deva, Hunedoara, Călan, Hațeg, Sarmisegetusa and Peșteana.



**Figure 7. Stores selling products obtained on the Denis farm**

(photo: Adrian Băneș)

The owner of the farm wants to increase the number of dairy cows and implicitly milk production, by purchasing Holstein cows. It also aims to expand the dairy's processing capacity and to build and populate a 2000-head pig farm with European funds to diversify food production.

## CONCLUSIONS

The farm presented in the paper can be a business model for all those who deal with animal husbandry, covering the entire sequence, from the production of raw materials, to production and sales. The manager of the farm managed, through a lot of work and investments where necessary, through the continuous concern for development, to continuously increase the profitability of the enterprise. A great success is given by the supply (at least partial) with fodder from the own production, as well as by selling the products from the farm through own stores.

After the discussions with the farm administrator, as well as the visit to the farm, resulted in a number of problems facing the cow farm and the stores.

One of the biggest problems facing the farm is the low price of milk. The farm manager wanted to enter the supermarket market, but due to the fact that the products obtained are natural, with a limited shelf life and due to the lower price of competing products, he did not succeed.

Another problem of the farm is the lack of skilled labor in the area, although the company offers above average salaries, farm accommodation for families without opportunities and a hot daily meal at the canteen. Currently, 98 people are employed, who, over the last few years, have an impermissibly high fluctuation for a high-performance farm. As a result, the farm manager hired three workers from Nepal, and three more tractor drivers and three milkers from abroad will arrive in the next period.

Finally, due to the short period in which manure can be applied on agricultural land, although the farm has large storage capacities, manure management is another problem that it faces because, according to the rules of good national practice that must be respected for to be able to benefit from surface subsidies, through APIA, (which prohibits the application of manure between October and March), the period in which the manure can be spread overlaps with the period of vegetation of agricultural crops.

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