

THE EVOLUTION OF DAIRY PRODUCTS THAT BENEFITED FROM THE MENTION OF OPTIONAL QUALITY "MOUNTAIN PRODUCT" IN THE MOUNTAIN AREA OF ROMANIA, DURING THE PERIOD 2017-2020

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Abstract

The paper aimed to present the situation of dairy products that benefited from the optional quality mention "mountain product" in the mountain area of Romania, during the period 2017-2020. This paper is based on statistical data provided by the National Sanitary-Veterinary Authority and for Food Safety and also by the National Institute of Statistics and the National Agency for Mountain Area, data from the National Register of Mountain Products. These were processed within the National Agency of the Mountain Area in the following indicators: number of counties with mountain area, number of Administrative-Territorial Units in the mountain area, total area of the mountain area (Km²), area of pastures and hayfields in the mountain area (ha), the herds of animals from the mountain area (cattle, sheep, goats, pigs), number of dairy products that benefited from the optional quality mention "mountain product". Compared to 2017, the herds of animals, in 2019, have significant decreases, leading to negative effects on the maintenance of permanent grassland areas in the mountain area, milk and meat production obtained from animals, milk and meat processing activities and, consequently, reduced development opportunities of farms in the mountain area.

Key words: mountain area, dairy products, mountain product, indicators, Romania

INTRODUCTION

Cattle farming is a major branch of world agriculture, due to the volume, diversity and value of products and products obtained from this activity. Thus, cattle provide 95% of the amount of milk consumed worldwide, 30-35% of meat and about 90% of all heavy hides processed in the world tannery [5]. Cattle breeding in Romania is a traditional activity of the population in rural areas and especially in the mountains. The diversity of the productions they make, the low energy consumption and the nature of the fodder they capitalize on, give the cattle breeding and exploitation the character of a sustainable and perspective activity [8]. Cattle breeding is an intensive branch of agricultural production, a means of capitalizing on feed

resources and ensuring the essential means of subsistence necessary for man. Due to the demographic explosion of human populations and consumer preferences for animal products, almost everywhere in the world, cattle breeding has been one of the most important concerns of humans over time. Currently cattle have approx. 65% (UVM) of the total number of domestic animals in the world and is the main source of milk and meat, providing over 95% of milk production, 33% of meat production and about 90% of the production of skins used in industry light, to which are added other important by-products (unconventional energy, organic fertilizers, etc.) [4]. Given the growing demand for milk and meat, meeting this goal can be achieved by increasing the number of cattle and their genetic improvement through science and technology [3]. Cattle breeding is an intensive branch of agricultural production, a means of capitalizing on feed resources and

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ensuring the essential means of subsistence necessary for man [1]. The mountain area has large areas of meadows, most of them with a high natural value, maintained in this condition due to the fact that, over time, they have been practiced a traditional, extensive agriculture, based on the use of natural fertilizers [10].

MATERIAL AND METHOD

In order to characterize the situation of dairy products that benefited from the mention of optional quality "mountain product" in the mountainous area of Romania, but also the situation of the mountainous area in Romania, the following indicators were used: number of dairy products that benefited from the optional quality "mountain product" (National Register of Mountain Products), number of counties with mountain area, number of Administrative-Territorial Units in the mountain area, number of inhabitants in the mountain area, total area of the mountain area (Km²), area of pastures and hayfields in

the area (ha), the herds of animals in the mountain area (cattle, sheep, goats, pigs) [9]. The analyzed period was 2017-2020, and the data have were provided by the National Sanitary-Veterinary and Food Safety Authority and also by the National Institute of Statistics and the National Agency of the Mountain Area, data from the National Register of Mountain Products; these data were processed within the National Agency of the Mountain Area.

RESULTS AND DISCUSSIONS

The mountainous area of Romania has a total area of 71,381.48 km², and includes 658 Territorial Administrative Units, respectively 27 counties with mountainous area, which represents 30% of the country's territory, of which 577 communes, 81 cities and municipalities and 3536 villages. The population of the mountain area is 3,354,041 inhabitants, which represents 16.5% of the country's population. Livestock decreased in 2019 compared to 2017 (figure 1 and table 1):

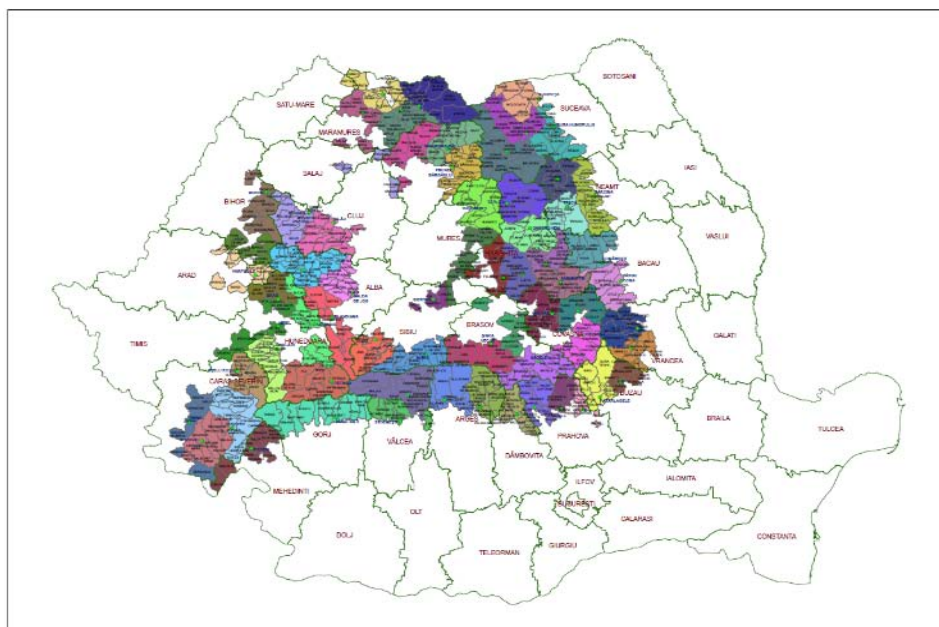


Figure 1. Representation of the mountain area in Romania with the 64 bioareas (mountain basins)
Source: National Agency of the Mountain Area

Table 1 - Evolution of livestock and permanent grassland during the period 2017-2019 in the mountain area of Romania

Current number	Indicator name	2017	2018	2019
1.	Cattle (number)	653,069	634,882	614,303
2.	Sheep (number)	2,753,399	2,753,492	2,587,345
3.	Goats (number)	255,572	243,523	211,992
4.	Pigs (number)	260,054	198,848	254,509
5.	Area of pastures (ha)		1,232,415	
6.	Area of meadows (ha)		930,538	
7.	Agricultural land (ha)		2,738,428	
8.	Arable land (ha)		528,046	
9.	Orchards(ha)		43,789	
10.	Other (ha)		4,399,720	

Source: National Agency of the Mountain Area

In 2017, 21 dairy products were certified as a “mountain product”, the producers being from Covasna, Harghita, Mureș and Prahova counties (table 2). As can be seen in table 3 and 4 the number of dairy products that benefit from the optional mention "mountain product" in the counties located in the mountain area (Bacău, Bistrita-Nasaud, Brasov, Caraș-Severin, Covasna, Cluj, Gorj,

Harghita, Hunedoara, Neamț, Sibiu, Suceava, Vâlcea) increased reaching in 2019 to 177 certified products compared to 2018 when only 34 products were registered. This is due to the fact that dairy producers recognize the value of mountain products, which are obtained from unpolluted areas, with permanent meadows with high natural value.

Table 2 - Certification of dairy products on “mountain product” in 2017 in Romania

Current number	County	Number of dairy products	Category
1.	Covasna	12	Milk and dairy products
2.	Harghita	3	Milk and dairy products
3.	Mureș	3	Milk and dairy products
4.	Prahova	3	Milk and dairy products
Total		21	Milk and dairy products

Source: National Agency of the Mountain Area

Most of dairy products were certified “mountain product” in Covasna county (tables 2,3,4), 39 products in 2019, followed by Cluj county, Hunedoara, Vâlcea, on the last places being located the counties of Brașov and Gorj. Until July 1, 2020, 94 dairy

products benefited from the optional mention “mountain product”, the producers being from the counties: Alba, Covasna, Cluj, Harghita, Hunedoara, Maramureș, Mureș, Neamț, Sibiu, Suceava, Prahova and Vâlcea.

Table 3 - Certification of dairy products on “mountain product” in 2018 in Romania

Current number	County	Number of dairy products	Category
1.	Bacău	3	Milk and dairy products
2.	Caraș-Severin	1	Milk and dairy products
3.	Covasna	16	Milk and dairy products
2.	Harghita	1	Milk and dairy products
3.	Neamț	8	Milk and dairy products
4.	Suceava	5	Milk and dairy products
Total		34	Milk and dairy products

Source: National Agency of the Mountain Area

Table 4 - Certification of dairy products on "mountain product" in 2019 in Romania

Current number	County	Number of dairy products	Category
1.	Bihor	6	Milk and dairy products
2.	Bistrița- Năsăud	10	Milk and dairy products
3.	Brașov	1	Milk and dairy products
4.	Caraș-Severin	1	Milk and dairy products
5.	Cluj	38	Milk and dairy products
6.	Covasna	39	Milk and dairy products
7.	Gorj	1	Milk and dairy products
8.	Harghita	14	Milk and dairy products
9.	Hunedoara	22	Milk and dairy products
10.	Mureș	8	Milk and dairy products
11.	Neamț	2	Milk and dairy products
12.	Sibiu	12	Milk and dairy products
13.	Suceava	7	Milk and dairy products
14.	Vâlcea	16	Milk and dairy products
Total		177	Milk and dairy products

Source: National Agency of the Mountain Area

Table 5 - Certification of dairy products on "mountain product" in 2020 in Romania

Current number	County	Number of dairy products	Category
1.	Alba	2	Milk and dairy products
2.	Covasna	3	Milk and dairy products
3.	Cluj	3	Milk and dairy products
4.	Harghita	23	Milk and dairy products
5.	Hunedoara	14	Milk and dairy products
6.	Maramureș	2	Milk and dairy products
7.	Mureș	6	Milk and dairy products
8.	Neamț	5	Milk and dairy products
9.	Sibiu	11	Milk and dairy products
10.	Suceava	11	Milk and dairy products
11.	Prahova	1	Milk and dairy products
12.	Vâlcea	13	Milk and dairy products
Total		94	Milk and dairy products

Source: National Agency of the Mountain Area

In Romania, 29.9% of Romania's territory is mountainous and 19.7% of Romania's used agricultural area comes from the mountainous area 9.15% of Romania's agricultural production is supplied by the mountain area, representing 0.7% of the EU's mountain production. Thus, the mountainous region of Romania is an area with an

important economic, social, cultural and environmental potential. Romania is one of the most active Member States in the development of quality in the mountain area. In Romania, the logo used for the mountain product is presented in figure 2 and figure 3.



Figure 2. Mountain product logo used in Romania; Source: taking over the National Agency of the Mountain Area

The attestation of the mountain product in Romania is regulated by Order no. 585 of December 20, 2019 for the amendment of the annex to the Order of the Minister of Agriculture and Rural Development no. 52/2017 on the approval of the Procedure for verifying the conformity of the data contained in the specifications in order to grant the right to use the optional quality mention "mountain product" and to verify compliance with European and national legislation by economic operators who have obtained the right to use of the respective mention, which regulates the competent authority that verifies the specifications, the national register of mountain products will be updated and completed by the National Agency of Mountain Area, the following terms are defined: mountain area, mountain product, applicant, specifications[6].

Also, the Government Decision no. 506 of 20 July 2016 on the establishment of the institutional framework and measures for the implementation of Delegated Regulation (EU) no. 665/2014 of the Commission of 11

March 2014 supplementing Regulation (EU) no. 1,151 / 2012 of the European Parliament and of the Council regarding the conditions of use of the optional quality term "mountain product" designating the National Agency of the Mountain Area as the competent authority responsible for developing the procedure for verifying the conformity of the data contained in the tasks in order to grant the right to use the optional quality label "mountain product" and to verify compliance with European and national legislation by economic operators who have obtained the right to use that label [2].

Delegated Regulation (EU) no. 665/2014 of the European Commission of 11 March 2014 supplementing Regulation (EU) no. Regulation (EC) No 1151/2012 of the European Parliament and of the Council as regards the conditions for the use of the optional term 'mountain product' shall govern the types of products which may benefit from that quality and the conditions for granting each product [7].

According to the above-mentioned Regulation, the following product categories may benefit from the qualitative indication mountain product: products of animal origin, feed, bee products, products of plant origin, processed products.

In the case of products of animal origin, the maintenance of mountain product quality may be attributed to products obtained from animals in mountain areas and which are processed in these areas, also for animals raised for at least the last two thirds of life in the mountain area and for transhumant animals, at least a quarter of their lives were transhumant and grazed on mountain pastures.



Figure 3. Dairy products authorized as "mountain product"; Source: taking over the National Agency of the Mountain Area

CONCLUSIONS

The mountain area is known for its low degree of pollution, which gives the food from this area an added value, already received on the market. However, the producers, who carry out their production activity in the mountain area, will have to be helped in the activities of promoting food products to the general public. According to specialists, the products from the mountain area are healthier and clearly superior to what is currently on the market, due to the fact that, in this area, the animal feed on pastures and hayfields has a wide range of valuable nutrients. The main resource for the economic and social development of the mountain area is the product obtained "from the mountains".

Mountain, traditional, ecological and quality products have a great capacity to contribute to the development of local communities, from an economic and social point of view, and the awareness of farmers and the general public about their economic potential and the importance of maintaining biodiversity and traditional agricultural practices, is the starting point for the

sustainable development of the mountain area. Given that the main agricultural activity in the mountain area is related to animal husbandry, the number of animals (cattle, sheep, goats, pigs) has decreased significantly recently with a negative impact on the agricultural economy, the maintenance of permanent mountain meadows, milk and meat production from animals, milk and meat processing, biodiversity, the environment, the integrity of pastoral landscapes, the health of the population and, implicitly, have limited opportunities for the development of farms in the area of the mountain. Consequently, we can say that the mountainous area of Romania needs special programs to support and encourage animal husbandry, programs for the installation of young farmers on farms, to encourage the development of agricultural and non-agricultural activities in the mountain area.

REFERENCES

- [1] Bocănici, Mioara, 2007 - Contributions to the study of cattle breeding in private farms in the Dornelor basin and Cămpulung Moldovenesc. Doctoral thesis, U.S.A.M.V., Iasi.
- [2] Government Decision no. 506 of 20 July 2016 on the establishment of the institutional framework and measures for the implementation of Delegated Regulation (EU) no. 665/2014 of the Commission of 11 March 2014 supplementing Regulation (EU) no. Regulation (EC) No 1.151 / 2012 of the European Parliament and of the Council as regards the conditions for using the word "optional product"
- [3] Maciuc Vasile 2006 - Cattle breeding management. 330 pp
- [4] Maciuc V. 2012 - Cattle Breeding. pp.134
- [5] Maciuc V., Leonte C., Radu-Rusu R. 2015 - Manual of good practices in cattle breeding.100 pp. Edit. Alfa, Iași, ISBN 978-606-540-148-8
- [6] Order no. 585 of December 20, 2019 for the amendment of the annex to the Order of the Minister of Agriculture and Rural Development no. 52/2017 on the approval of the Procedure for verifying the conformity of the data contained in the specifications in order to grant the right to use the optional quality mention "mountain product" and to verify compliance with European and national legislation by economic operators who have obtained the right to use of that statement
- [7] Delegated Regulation (EU) no. 665/2014 of the European Commission of 11 March 2014 supplementing Regulation (EU) no. Regulation (EC) No 1151/2012 of the European Parliament and of the Council as regards the conditions of use of the optional term "mountain product"
- [8] Viocu D., Hăbeanu M., 2015- "Influence of using alternative sources of feed for fattening cattle on production and meat quality"
- [9] <http://www.insse.ro>.
- [10] <http://www.madr.ro>