

## THE COMPETITIVENESS OF ANIMAL PRODUCTS FROM THE REPUBLIC OF MOLDOVA: THE VALUE CHAIN APPROACH

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### *Abstract*

*The competitiveness of an enterprise depends on the competitiveness of the offered products on the market, being based on the comparative characteristics analysis of the analyzed product with the competing products from the market, in order to satisfy specific needs and being acceptable by the customer in terms of price. The animal products from the Republic of Moldova play a significant role in the economic growth of the country. The scientific research is dedicated to the analysis of the competitiveness of animal products from the Republic of Moldova using the value chain method, namely were analyzed the elements of the animal products value chain, the problems of the agricultural producers at the level of animal products value chain, the marketplace of animal products. As a result of the performed investigations there were proposed recommendations in order to increase the competitiveness of animal products from the Republic of Moldova.*

**Key words:** competitiveness, animal products, value chain, marketplace, agricultural producers

### INTRODUCTION

The animal growth, after the plant growth represents the second component of the agriculture's activity. The role of the animal growth is very important, and its level of development is an essential characteristic of the modern agriculture.

Improvind the population's consumption of animal production, increasing of the availability of animal origin protein and of its share in consumption is directly related to the development of the veterinary medicine [4].

In our country there are conditions for increasing livestock, for increasing their productive potential and for development of this branch on technological principles.

An important method of determination the competitiveness of a product, of identification its competitive advantage is the value chain analysis, which gives us the possibility to determine the strong and weak points from the way the product passes starting with the producer and finishing with the final consumer [2,3,7,9].

The value chain approach of increasing the competitiveness of animal production from the Republic of Moldova gives us the possibility to analyse the elements of the

value chain of the animal production, to find out the problems of different levels of the value chain and to the formulate proposals of improving the processes where were registered deficiencies.

### MATERIALS AND METHODS

The scientific investigation is based on the data from the National Bureau of Statistics of the Republic of Moldova, Ministry of Agriculture and Food Industry, National Institute for Economic Research and other economic literature regarding competitiveness of enterprises, competetiveness of production value chain analysis.

As research methods were used: graphical method, time series, analysis and synthesis, induction and deduction.

### RESULTS AND DISCUSSIONS

The global agricultural production in 2017 in all categories of households constituted 108.6%. The increase of the global agricultural production was determined by the increase of the vegetal production by 13.1%, the animal production registering a decrease by 2.1%.

The share of the vegetal production in total agricultural production constituted 74% , registering a decrease compared to 2016 by 3% and the share of the animal production in total agricultural production constituted 26%, which also decreased by 3%.

Analysing the figure 1 we can reveal that the livestock of sheep has the highest values, registering a decrease during 2015 to 2017 from 729.8 thousand capita to 710.6 thousand capita. On the second place is situated livestock of pigs which also registered a decrease in 2017 compared to 2016 by 33.8 thousand capita, from 472.8 thousand capita to 439 thousand capita. On the third place is situated the livestock of rabbits which registered an increase from 326.1 thousand capita to 366.7 thousand capita. The livestock of cows also decreased in 2017 compared to 2015 from 130.3 thousand capita to 122.9 thousand capita.

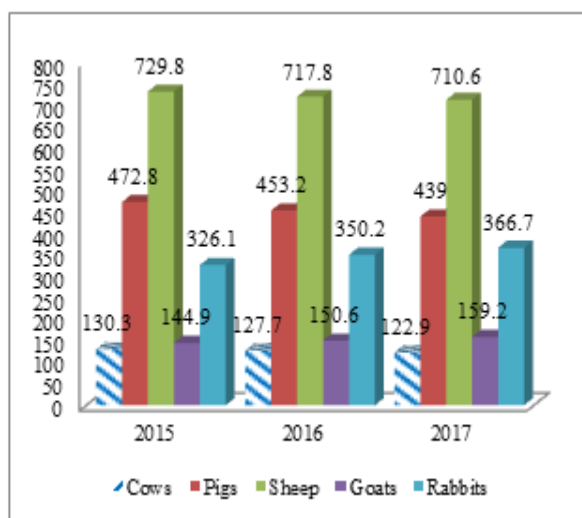


Fig. 1. The dynamics of the livestock by species of animals in all categories of producers during 2015-2016, thousand capita

Source: elaborated by the authors based on the data from the National Bureau of Statistics of Moldova

Most of the livestock by different species of animals is grown in households – 95%, and only 5 % of the livestock of animals is grown in agricultural enterprises [3].

According to the table 1 we can reveal that the livestock of cows mostly is concentrated in the North Region, where in 2017 constituted 60.6 thousand capita; livestock of pigs is concentrated in Center Region, where in 2017

constituted 247.2 thousand capita and the livestock of sheep and goats is concentrated mostly in South Region, where it constituted in 2017 – 305.6 thousand capita [1].

Table 1. Livestock in all categories of producers, in territorial aspect during 2016-2017, thousand capita

Region	Cows		Pigs		Sheep and goats	
	2016	2017	2016	2017	2016	2017
Chişinău Municipality	1.3	1.1	3.3	2.2	7.5	6.4
North	61.4	<b>60.6</b>	111.3	104.4	204.1	206.2
Center	40.9	38.4	248.6	<b>247.2</b>	217.3	219.1
South	20.5	19.4	172.4	67.9	316.1	<b>305.6</b>
UTA Găgăuzia	3.6	3.4	17.6	17.3	123.6	132.5

Source: elaborated by the authors based on the data from the National Bureau of Statistics of Moldova

Analysing the dynamics of livestock in all categories of producers, in territorial aspect during 2016-2017, we can reveal that the livestock of all categories of animals decreased.

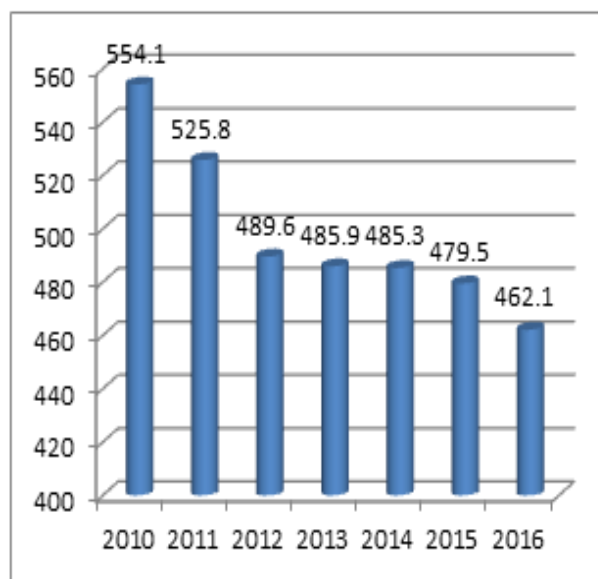


Fig. 2. The dynamics of the production of cow milk during 2010-2016, thousand tonnes

Source: elaborated by the authors based on the data from the National Bureau of Statistics of Moldova

According to the Figure 2 we can reveal that the production of cow milk during 2010-2016 registered a decreasing trend from 554.1 thousand tonnes in 2010 to 462.1 thousand tonnes in 2016, this being caused by the decreasing of the livestock of cows in the mentioned period [6].

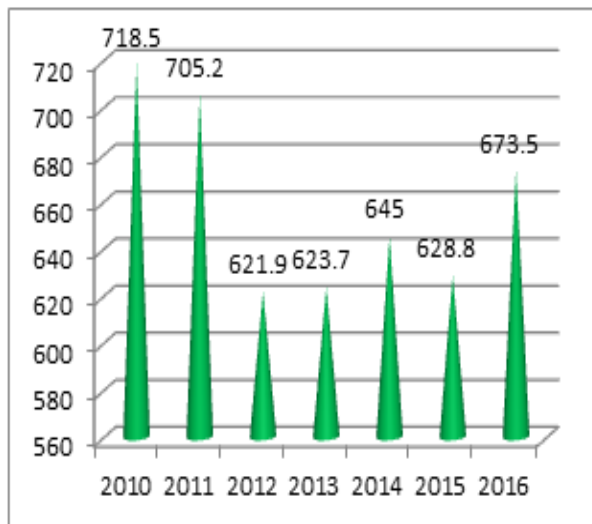


Fig. 3. The dynamics of the production of eggs during 2010-2016, mio.pcs

Source: elaborated by the authors based on the data from the National Bureau of Statistics of Moldova

The dynamics of the production of eggs during 2010-2016 according to the figure 3 reveals a non uniform evolution, registering in 2016, 673.5 mio.pcs, which is less than in 2015 by 44.7 mio.pcs [1].

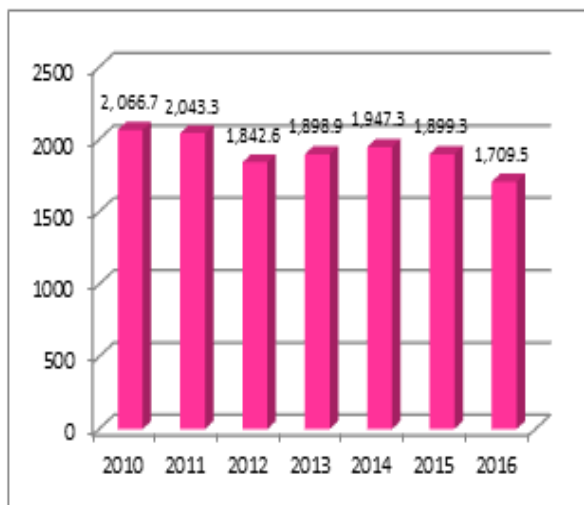


Fig. 4. The dynamics of the production of wool during 2010-2016, tonnes

Source: elaborated by the authors based on the data from the National Bureau of Statistics of Moldova

The production of wool during 2010 – 2016 also registered a decreasing trend by 357.2 tonnes, from 2,066.7 tonnes to 1,709.5 tonnes. The production of wool decreased because of the decreasing trend of the sheep livestock.

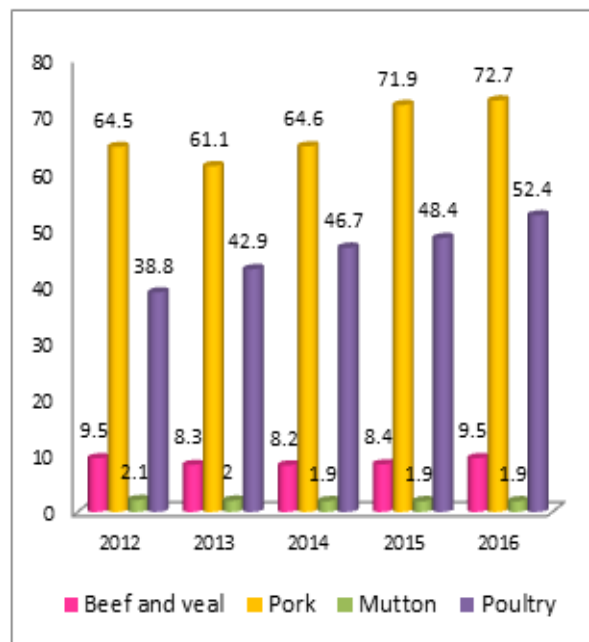


Fig. 5. The meat production by all categories of producers by types during 2012-2016, thousand tonnes

Source: elaborated by the authors based on the data from the National Bureau of Statistics of Moldova

The highest values of meat production by all categories of producers by types during 2012-2016 was registered for pork meat, which constituted in 2016, 72.7 thousand tonnes, which represents an increase compared to 2015 by 0.8 thousand tonnes. On the second place is situated poultry which registered in 2016, 52.4 thousand tonnes, which represent an increase compared to 2015, by 4 thousand tonnes [6]. On the third place is situated beef and veal, the production of which constituted in 2016 - 1.9 thousand tonnes.

The increase of animal production was determined by the increase of the productivity of poultry and beef and veal.

The majority of the animal products is sold by other channels of sale (market, own trade system, barter transactions) and a little part of animal production is sold to enterprises and organizations which collect and process agricultural production.

In this context the way the animal products pass from the producer to the final consumer represents the value chain. The analyse of the value chain is very important for understanding the relations between the actors from the market [8].

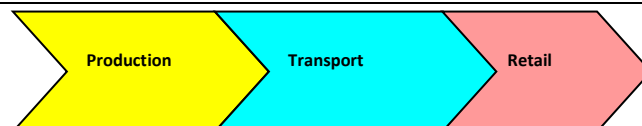


Fig. 6. The value chain of animal products  
 Source: elaborated by the author

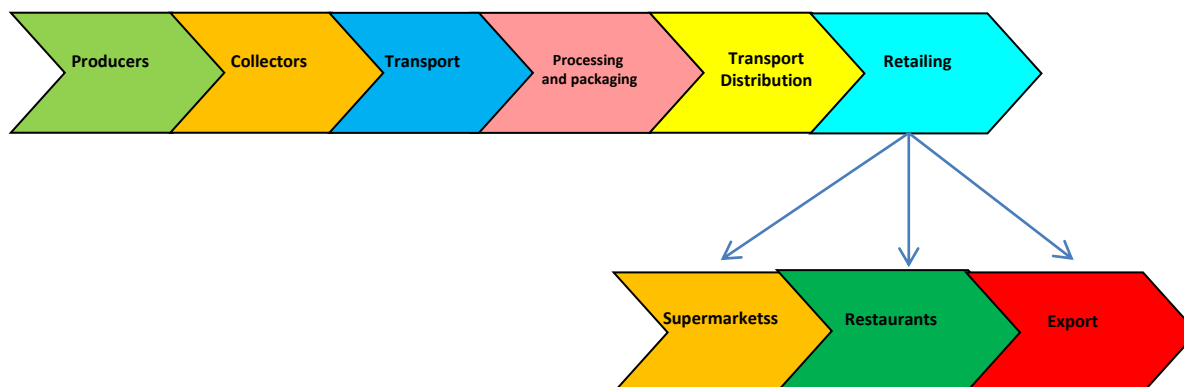


Fig. 7. The value chain of processed animal products  
 Source: elaborated by the author

The value chain of animal products from the Republic of Moldova consists of the following elements: **1. Production; 2. Transport; 3. Retail.**

In many cases animal products, such as pork, poultry, meat, cow milk is sold directly to final consumer, which causes risk to the public health, because are not used innovative systems for processing, the products are not pasteurized (for ex. milk).

In the same time exists another value chain, more sophisticated, when animal products pass through the pasteurization process, the level of fat is regulated, the products have a brand name and the prices are much higher because of the costs of processing. In this case, the value chain has the following elements: (i)**Producers**, (ii)**Collectors**, (iii)**Transport**, (iv)**Processing and Distribution**, (v) **Retailing** including: (a)**Supermarkets**, (b)**Restaurants, hotels** and (c)**Export**.

Analysing the value chains of animal products we can reveal that exists risks in the process of commercialization animal products, especially when this products are sold directly in “open markets” without any processing. It should be created special conditions to produce high quality animal products. Many agricultural producers of animal products sell this products chaotically. It doesn't exist a well organized method of collection animal

products. Also should be taken measures at the legislative level in order to increase the quality of the commercialized animal products. Many of the agricultural processors don't have ISO certification, which will give possibility to sell animal products on the international market [5].

Thus, from the mentioned above problems there must be taken several measures in order to increase the competitiveness of animal products by using high technologies of processing; by collecting animal products from producers in an organized way and also by achieving foreign markets after receiving the ISO certification.

## CONCLUSIONS

As a result of the performed investigation, we can formulate the following conclusions:

- The animal growth is an important part of the agricultural production being situated on the second place after the plant growth;
- Mostly animal production is produced in households – 95%, and a little quantity of animal production in agricultural enterprises;
- During 2012-2016 was registered an increase of meat production by all categories of producers due to the increase of productivity;
- The value chain is an important method of analysing the competitiveness of animal products, being constituted of the following

elements: Producers, Collectors, Transport, Processing and Distribution, Retailing: Supermarkets, Restaurants, hotels, Export.

-Exists many problems at the level of the value chain of animal products among which are: animal products, many times are sold chaotically directly from the “open market” without being checked on quality; lack of ISO certification at many companies; lack of a well-organized method of collection animal products from producers ensuring all the necessary standards of quality.

-In order to increase the competitiveness of animal products there is a necessity to improve the legislation in force regarding the selling of animal products limiting selling in “open markets” without adequate certification; creating a mechanism at the level of state in order to encourage the agricultural producers to achieve the ISO certification; creation of a well-organized way of collection animal products from population.

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