# THE EVOLUTION AND PROSPECTS OF THE SHEEP SECTOR IN ROMANIA IN 2000 – 2014 PERIOD

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#### Abstract

This scientific paper aims to present a detailed analysis of sheep breeding sector in Romania for the period 2000-2014. The data presented here were collected from various official sources and specialized publications and they revealed a decrease in the sheep livestock in the first period analysed (2000 - 2006), followed by a sustained growth until now (2007 - 2014). Meat production was relatively constant because the behaviour of the Romanian consumers towards for this aliment is determined by the Orthodox tradition during the Easter. Milk production had a course inversely with the evolution of the sheep livestock. The wool production, in this period, recorded an almost total loss of economic value.

Key words: livestock, meat production, milk production, sheep, wool production.

# INTRODUCTION

The sheep, next to cattle and goats, are one of the most important ruminants species exploited for the production of meat and milk. Besides these productions, the sheep also provide the main source of wool worldwide.

Quantitatively, in the year of 2014, the sheep occupied the 4<sup>th</sup> place in the ranking of the main species producing meat, both worldwide, providing 2.95% of meat production, and in the European Union and Romania with a share of 1.97% respectively 6.45% (Figure 1).



Figure 1. Meat production structure (FAOSTAT 2016)

In terms of milk production (Figure 2), in 2014, sheep milk accounted for 1.30% of the total milk produced worldwide (4<sup>th</sup> place), 1.75% of EU production (2<sup>nd</sup> place) and 12.93% of milk produced in Romania (2<sup>nd</sup> place).



Figure 2. Milk whole fresh production structure (FAOSTAT 2016)

Both, sheep milk and meat, have outstanding nutritional and organoleptic qualities, and represents an important source of energy, protein with high biological value, and also vitamins and macro minerals, superior to other species of ruminants. In summary, in terms of quality, sheep milk is distinguished by a high content in minerals and vitamins (Ashworth, 2000) and the meat, by taste, aroma and texture, and also, through a higher digestibility than beef meat (Manole, 2008).

From the point of view of economic efficiency, the sheep have satisfactory levels of production without having special needs regarding the housing or nutrition technologies.

### MATERIALS AND METHODS

To characterize the evolution of sheep husbandry sector in Romania during 2000 -2014 were collected and processed official data provided by various official sources such as FAOSTAT, Ministry of Agriculture and Rural Development, Statistic National Institute, and publications in the field. The raw data were processed statistic and graphic using Excel, in order to interpret and issue assumptions about the prospects of this sector in Romania to facilitate the elaboration of development strategies.

### **RESULTS AND DISCUSSIONS**

**Population number evolution.** For the analysed period, the sheep livestock from Romania had registered an upward trend, being in 2014 by approximately 12.50% higher than in 2000 (Figure 3).



Figure 3. Sheep population evolution in Romania (blue) and in E.U. (red) in 2000 – 2014 period (FAOSTAT, 2016)

The annual growth rate ranged around 1.00%. However, it should be noted that, compared to the maximum livestock registered in Romania, the average livestock of analysed period is only 43.61% (8,128,149 heads towards 18.6 million heads in 1985).

The historically minimum level for sheep population was recorded in 2002, when the livestock was only 7.2 million heads.

In the EU, the evolution of the number of sheep for the same period had a downward trend, decreasing by approximately 26.11% from 123.2 million to 97.6 million heads.

*Milk production.* It has registered, both in the analysed period, and in general, a relatively constant growth (Figure 4). Thus, the production obtained in 2014 was 673,477 tons, 110% higher than in 2000.



Figure 4. Milk production evolution in Romania (FAOSTAT, 2016)

It is noteworthy that both the maximum and minimum historically levels of production have been recorded in the period under review as follows: historical low was 320,800 tonnes in 2000, and the historical maximum was 673.477 tonnes and it was registered in 2014. Given how the evolution of production correlates with the sheep population dynamics, it can be said that the increase in milk production, with approximately 110.0%, recorded in the period 2000 to 2014, is the effect of genetic improving of the population, which increased during the same period with only 12.50%. Basically, the numerical growth of the population is 8.80 times slower than that of production.

*Meat production.* In terms of meat production, the Romanian sheep livestock could occupy an important place alongside swine, broiler and beef because, although it capitalize less efficient the feeds, this species can consume some forages, which can't be used by other

species, that are very inexpensive and may graze in inaccessible areas for cattle. At the same time, meat occupies the largest share (approximately 50.00% of the total) in the economy of sheep husbandry (Saghin, 1955, quoted by Drăgănescu, 2006).

Given all this, the national strategy for boosting this sector has the following objectives: the organization of lamb fattening units, increasing sheep meat consumption per capita, which currently stands at approximately 3.30 kg, facilitation of the commercialization of productions and the orientation of the genetic improvement programs to meat – milk morpho-productiv type sheep (MARD, 2016).

Sheep meat is an important source of protein (18.32 to 20.37%, depending on theage at slaughter) which contains all of the essential amino acids (Taftă, 2008).

Quantitative evolution of the meat production has upward trend (Figure 5) but, for the analysed period, it is not so spectacular, compared to the situation of milk production.



Figure 5. Meat production in Romania (FAOSTAT, 2016)

Compared to the beginning of the period, in 2014, sheep meat production was 37.76% higher, and the average production was 57,183.13 tons (FAOSTAT 2016), which represents only 53.34% of the maximum production, registered in 1990.

The historical minimum was recorded in 2006 and was around the value of 41,993 tonnes (FAOSTAT 2016). The average weight at slaughter was 20.70 kg for the analysed period.

*Wool production.* Wool is the raw material that stays at the basis of some materials with high economic value but, because of artificial textile industry development and the lack of effective

national policies for the efficient capitalisation of this production, the market value was significantly diminished lately.

For the analysed period, this production recorded a slightly upward trend (Figure 6), the amount in 2014 reaching the value of 18,600 tons, with 3.35% more than in 2000. Average production in the period was 19,087 tons.



Figure 6. Wool production evolution in Romania (FAOSTAT, 2016)

*The import and export.* From the sheep productions, Romania has imported and exported live animals, meat and wool.

For the 2013 year, the value of imports was at value of \$ 4,024,000 and that of exports at \$ 28,094,000 (Table 1).

Table 1. Sheep production import and export
(FAOSTAT, 2016)

SPECIFICA- TION	IMPORT		EXPORT	
	QUANTITY	VALUE (1000 \$)	QUANTI TY	VALUE (1000 \$)
MEAT (tonnes)	765	3,191	2,106	12,635
WOOL (tonnes)	183	833	16,221	15,459
Total	-	4,024	-	28,094

In the structure of imports, the value of meat occupies the main share (79.30%), followed by the value of wool (20.70%).

Romania exported mainly wool, the value accounting for 55.03% of total exports, while meat occupied a share of 44.97%. The value of exports was about 7 times higher than that of imports.

*Perspectives.* Given the trends registered for sheep sector in Romania, it can be expected the following:

Romania will occupy a more important place among big sheep breeder countries such as the

UK, France and Spain. This statement is sustained by the way the sheep populations have evolved in Romania and the European Union in recent years (Figure 3);

- The sheep breeders will specialisation in two main directions: production of meat for the internally and externally consumption, and milk - meat production obtained in traditional systems;
- Increasing the efficiency of meat export by replacing live animals exports with carcasses obtained from genetic improved animals;
- Realization of traditional products, such as cheese specific to some geographical areas, that can be sold at very convenient prices for the sheep breeders;
- The reorientation of farmers to this species.

# CONCLUSIONS

Sheep are one of the most important species that produce milk and meat from Romania.

In the recent years, the evolution of sheep population in Romania registered a significant increase, while in the European Union, herds are declining.

Both, milk and meat production have increased in the analysed period.

Wool production lost in economic importance in recent years.

The value of exports is about 7 times higher than that of imports.

In the future, there are some positive aspects about the sheep sector in Romania by having an appropriate context for the development of sheep farms.

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