# THE SHEEP AND GOAT FARMING SECTOR IN ROMANIA – A NEW DEVELOPMENT PERSPECTIVE

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#### Abstract

In the period 2003-2017, Romania became an important export source of live sheep and goats, both for the intra-Community trade and for third countries in particular. From food security perspective, for Romania, sheep and goat meat (accounting for 3.5% of total meat consumption in the year 2016) has a particular importance both for dietary diversification and for the complex contribution to putting into value the country's agricultural resources, the sheep species having the exceptional capacity to valorize the land from the areas with natural handicaps (80% of these areas are valorized by the ovine species). Although Romania ranks 6<sup>th</sup> in EU-28 in terms of total sheep and goat herds, it ranks 10<sup>th</sup> in terms of meat production (in carcass equivalent), yet on the rise compared to the pre-accession period. Considering that self-sufficiency in sheep and goat meat on the EU-28 market is only 88% and demand is increasingly higher on the markets from Asia, South America and Middle East, Romania must capitalize on these opportunities and develop its sheep and goat sector on the long term. The growth of middle-income population from Asia, Latin America and Middle East and the increasing demand of ovine meat implicitly represent an export opportunity that Romania has to valorize, also having in view that Romania, as supplier of live animals, is also appreciated for raising animals under extensive grazing system.

*Key words: sheep and goat meat production, consumption, trade* 

#### **INTRODUCTION**

The livestock sector in Romania has experienced a difficult period, due to land fragmentation, decreasing trend of livestock herds, insufficient national financial support, as well as to the fact that only a small number of livestock farmers are eligible for receiving coupled livestock support (supplementary payment from EU funds introduced in the year 2015).

In terms of food security, sheep and goat meat (accounting for 3.5% in the structure of total meat consumption, in the year 2016) is quite important for Romanian consumers, both for dietary diversification and for its complex contribution to the valorization of the country's agricultural resources, the ovine species having an exceptional quality to put into value the land in the areas with natural handicaps (80% of these areas are used by the ovine species).

The growth of medium-income population from Asia, Latin America and Middle East, and implicitly the growing demand of sheep meat, represent an export opportunity that needs to be valorised, also taking into consideration that Romania, as a supplier of live animals, is also appreciated due to the livestock farming system based on extensive grazing.

Considering that self-sufficiency in sheep and goat meat on the EU-28 market is only 88% and demand is increasingly higher on the markets from Asia, South America and Middle East, Romania must capitalize on these opportunities and develop its sheep and goat sector on the long term.

The sheep and goat meat production increased by 4.3% in the first half of the year 2017(+19,500 tons), as against the same period of the previous year, both in EU-15 and in EU-13 [2]. This increase fully results from sheep slaughter (+5%), while goat slaughter decreased by almost 2%. About 50% of this increase can be attributed to the United Kingdom, while the difference to Ireland (14%), Germany (9%) and Romania (6%).

It is estimated that the world total meat production (in carcass equivalent) will increase up to 357,454 thousand tons by the year 2025. Sheep and goat meat production will also increase significantly, from 14,137 thousand tons (2013-2015 average) to 17,438 thousand tons in 2025, the developing countries contributing significantly to the increase of sheep meat production on the long run. It is estimated that the following countries will largely contribute to this increase: China by about 45% and the Saharan Africa Sub-Region by about 27% [7].

The EU exports, mainly the exports of live animals (about 8% of its total production) mainly go to Middle East and North Africa, while meat and meat products have mainly the Far East as main destination. The EU imports, around 212 thousand tons in the year 2016, mainly came from New Zealand and Australia (94%), accounting for about 23% of the EU's consumption [5].

Although the European Union improved its access to the Asian market, the competition from North America and South America will make it difficult to take full advantage of this opportunity. Australia and New Zealand will continue to be world leaders in the sheep meat market, meeting the medium-income population demand, on the rise, from China and Middle East [7].

The main characteristic of the sheep sector both in Romania and in EU-28 member states is that sheep farmers, mostly elderly farmers, generally obtain low incomes from the farm production activity, due to low productivity, being highly dependent on the support from subsidies [1]. The sheep and goat farming sector provides high quality products to consumers. From this point of view, also taking into consideration that self-sufficiency in this sector on the EU-28 market is only 88%, new development opportunities on the long term are expected for the sector [2]. Sheep and goats have an important role in environment and biodiversity improvement, mainly in the areas with natural constraints and other specific constraints. At the same time, we can add the socio-economic role of this species, in terms of labour employment in the rural areas [2].

In this respect, the financial support provided to the sheep and goat sector, as well as the 152 maintenance and consolidation of coupled support under the future reform of the Common Agricultural Policy (CAP) in order to reduce the abandonment of this production in the European Union, as well as state aids and compensations of 100% in case of attacks by wild animals, represent proposals that are in the attention of the European Parliament Committee on Agriculture and Rural Development [10].

In the European Union, sheep meat has the lowest share in total meat consumption (2.9%), consumption permanently decreasing in the last 15 years from 3.8 kg/capita in 1999, to 2.1 kg/capita in 2015 [2]. Australia and New Zealand are the countries where a slight decrease of ovine meat consumption is expected on the long term, due to the competition from other types of cheaper meat types (poultry and beef). Ovine meat consumption will continue to increase instead in countries like China and in those countries with tradition in the consumption of this meat type, like in the Middle East, under the background of middle class expansion and population growth [2]. As a result, at the European Commission level, a program promoting sheep meat was initiated, in order to reconnect consumers to sheep meat consumption in the European Union. highlighting the positive attributes of sheep meat [4].

As regards the price of sheep meat in carcass equivalent (2015), we must mention that there is a significant gap between the EU price (5,097 euro/ton) and the world price (3,229 euro/ton) due to the protection of the European Union's borders. On the long term (2026), due to the steady increase of demand in Asia (in China in particular) and in the Middle East (mainly in Saudi Arabia), it is estimated that the EU sheep meat price will increase to 5,224 euro/ton [3].

### MATERIALS AND METHODS

The analysis referred to the period 2007-2016. The analyzed indicators in this period, presented in evolution, refer to the sheep and goat herds and the production of meat from these animals, the consumption of sheep and

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goat meat, self-supply in sheep and goat meat, trade (import/export) with live sheep and goats. The research was conducted both for Romania and for several countries of the European Union (Germany, France, Hungary, Bulgaria, Poland).

Self-sufficiency in sheep and goat meat in the investigated period was calculated using an analysis model (of food balance sheets) used by the National Institute of Statistics, in conformity with the FAO and EUROSTAT methodologies, the main indicator being the utilizable production, on the basis of which the supply availability is obtained (by adding imports and subtracting exports). The ratio of utilizable production to supply availability, in percentage terms, represents the self-supply level (indicator expressing the self-sufficiency rate for the respective product).

The documentation and synthesis of the main ideas necessary to conduct this study was based on the consultation of materials from the national and world literature on the sheep and goat market evolution at European and world level (reports, studies, forecasts, other EUROSTAT and FAOSTAT publications).

As information source, we mention the "Tempo-online database" – time series – National Institute of Statistics, ANSVSA data, "Food Balance Sheets" and "Population's Consumption Availabilities", as well as EUROSTAT and FAOSTAT data for the period 2007-2016.

#### **RESULTS AND DISCUSSIONS**

# *Evolution and development of the sector after accession*

Unlike other livestock farming sectors (cattle, pigs), the accession to the European Union in the year 2007 has contributed to the revival of the sheep and mainly goat farming sector in Romania, the goat herds steadily increasing, without being affected by the crisis. In the investigated period 2007-2016, the total goat herds increased by 71%, while the sheep herds by 16% [11].

The support to the sheep and goat sector by EU funds, as well as the Romanian consumers' demand for ewe and goat milk products represented motivational factors for farmers, materialized into a relatively constant milk production in the investigated period (Figure 1).



Fig. 1. Evolution of sheep and goat milk production in the period 2007-2016 – thousand hl Source: Tempo on line, National Institute of Statistics, [12]

With a meat production (carcass weight) of 9.3 thousand tons in the year 2015, Romania ranks 10<sup>th</sup> in the 28 member states, although it ranked 4<sup>th</sup> as regards the total sheep and goat herds, after the United Kingdom, Spain and Greece.

Keeping in top four was due to programs aimed at stimulating the organization of farms or associations for young sheep raising and fattening to provide meat to the domestic and foreign markets, to increase farmers' incomes through the sale of marketable production and to modify the priority operating directions for meat – milk production [8].

At the same time, the sheep breeds for meat production have been improved by using artificial insemination and breeding rams for meat production, improvement of size structure of farms for young sheep fattening and introducing the carcass classification grid, according to EU standards.

Although the share of slaughter in specialized units increased from 3% (1.8 thousand tons) in 2007 to 16% (8.5 thousand tons) in 2016, it is still low compared to other European states. In this context, we mention that sheep farmers signal out a stringent problem that they are facing, namely the lack of animal slaughter centers. The operation of a larger number of centers. with sanitary-veterinary such accreditation, would make it possible for sheep farmers to sell better their meat production, and consumers would have the guarantee that the high food safety standards have been met (Figure 2).

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Fig. 2. Evolution of sheep and goat meat production obtained on industrial units, in the period 2007-2016 -tons carcass

Source: Tempo on line, National Institute of Statistics, [12]

As regards the average slaughter (carcass) weight in specialized units (slaughterhouses), Romania ranks among the countries with the lowest average weight (12.8 kg/head), as against Denmark (22.2 kg/head), Germany (20.5 kg/head) or the United Kingdom (20.4 kg/head) [6].

#### Development opportunities for the sector

As it has been mentioned before, Romania has a numerous sheep population. The highest consumption of sheep and goat meat by the Romanian consumers is during the Easter holidays and in the autumn months, while in the rest of the year consumption is only occasional. In fact, it decreased as share of total meat consumption per capita, from 5.6% in 2000, to 4.0% in 2015 and 3.5% in 2016.

The Romanian consumers' preferences for sheep meat differ across regions; higher consumptions are met in the regions Sud-Est, with Greek and Turkish influences, and Centre, with tradition in sheep grazing.

It should be noted that the meat processors and traders, as well as the Romanian restaurants, prefer meat from imports, due to its higher quality specific to specialized meat breeds, to the detriment of meat obtained from domestic production. This because the sheep breeds from Romania are not specialized in meat production, but rather in the production of lambs and milk.

Compared to other countries from EU-28, consumption in Romania (3.3 kg/capita) is higher than that in Poland (0.05 kg/capita), Hungary (0.1 kg/capita), Germany (0.8 kg/capita), Italy (1.1 kg/capita), close to that of Spain (2.7 kg/capita) and France (3.3

kg/capita), yet lower than that of Greece (12.8 kg/capita) or Iceland (22 kg/capita).

In order to stimulate sheep meat consumption Romania. and the consumption of in Romanian products in general, in the year 2017, the Ministry of Agriculture and Rural Development initiated the scheme "Choose the Sheep" with two axes: scheme popularization throughout the country and developing the infrastructure, i.e. opening specialized stores to meet the consumer demand for sheep meat and products. According to the available information, in the year 2018, six well-known retailers (Metro, Selgros, Auchan, Kaufland, Mega Image, Penny) selling sheep meat in 262 stores every day, sold more than 37 tons sheep meat per month [9]. At the same time, this scheme also intends to stimulate sheep meat consumption in restaurants, and in this respect consumers will be presented specific sheep-meat based menus.

This scheme also aims at capitalizing on sheep meat production, increasing the export value through processed products, attracting labour force in the sheep meat processing sector, while preserving the sheep-based food traditions, mainly in the mountain areas.

The final objective of this campaign is to inform consumers on how to cook sheep meat and meat preparations, as well as to develop a culinary culture based on sheep meat consumption. At the same time, the program intends to provide support to sheep farmers and to establish a wholesale market that will represent an intermediary between the sheep farmers and the marketing channels (retail and proximity shops).

Another opportunity for sheep farmers in Romania is that there is a growing demand for wool for the textile industry and tourism industry both on the world market and on the domestic market. From this point of view, Government's Decision no. 500/2017 was adopted on the scheme "De minimis aid for the implementation of the program supporting sheep farmers for selling wool".

In this direction, a measure was set up for the identification of wool collection centers. Thus, at present, there are 20 centers that collect wool from sheep farmers, with a total capacity of about 30,000 tons. These are located throughout the country, in the counties: Bacău, Bistrița Năsăud, Brăila, Constanța, Galați, Maramureş, Sibiu, Suceava, Tulcea and Vaslui. The context of adopting this *de minimis* aid scheme to support sheep farmers is that from experts' estimates it resulted that about 70% of the obtained wool was not valorized.

The value of financial support representing this *de minimis* aid is 1 RON/kg of wool. The financial resources necessary to implement this scheme total 36,000 thousand RON and are paid from the state budget, within the limit of budgetary provisions approved for this destination by the Ministry of Agriculture and Rural Development in the year 2018.

The first results of the support scheme for wool commercialization, with regard to the establishment of the wool collection centers have already appeared. Thus, in the first months of the year 2018 (with the beginning of the sheep shearing season), about 8,865 tons of wool were collected, out of which 3,444 tons were exported to Turkey, India, China and Italy [11]

The effects of the scheme also target the wool selling price: while before the scheme was initiated, the wool price was much too far from farmers' requirements, at present, on the basis of competition, a certain price began to be formed, depending on quality, which currently ranges from 2 to 4.5 RON/kg.

The justification of the low sheep meat consumption by the Romanian consumers is based on the consumption habits and the relatively high price, as compared to poultry or pig meat (Figure 3).



Fig. 3. Sheep meat price (carcass under 13 kg) – euro/100kg Source: Eurostat.

Yet the sheep carcass (under 13 kg) price, of 236.8 euro/100 kg, is one of the lowest in the EU, compared to France (623.1 euro/100 kg) and to the EU-28 average (493.3 euro/100 kg).

In the year 2016, the Romanian farmers received 7.5-8 RON/kg live weight (1.7-1.8 euro/kg) at the export of live sheep, which is a low price if we take into consideration that on the Arab market the live weight price is 4.8-5.2 euro/kg. This is why the Romanian farmers are discontented, as they consider that for them 2.5-3 euro/kg live weight would be a satisfactory price to cover their costs and to obtain profit.

The analysis of self-supply level (indicator expressing the self-sufficiency rate) in the period 2006-2016 reveals 100% and over self-sufficiency from domestic production (107% in 2014, 115% in 2015). The significant growth of imports starting with 2012 (2.3 times compared to previous year) and the exports that dropped more than half resulted in a higher self-sufficiency level in the year 2015 (Figure 4).



Fig. 4. Evolution of self-sufficiency level in sheep and goat meat, 2006-2016 - % Source: Bilanțuri alimentare 2007-2016, National Institute of Statistics, [12]

The trade balance in live sheep was positive in the period 2003-2016, due to permanent export growth. Since 2009, Romania has no longer imported sheep and goats from the extra-Community area. The imports from intra-Community countries have significantly increased instead, mainly after 2013, 72% of imports originating from Spain and 19% from Hungary, in the year 2016.

The sheep export almost fully depends on the export orders from North Africa and Middle East and has as main destinations the following extra-Community countries: Jordan

(58%) and Libya (26%). In the year 2016, according to the data from the National Institute of Statistics, Jordan was the main export destination, with a value of 73.4 million euro, representing 58% of the total value of extra-Community sheep export. In intra-Community area. the the export destinations include Greece, Italy and Bulgaria.

## **CONCLUSIONS**

With a meat production of 9.3 thousand tons, Romania ranks 10<sup>th</sup> in EU-28; however, it ranks 4<sup>th</sup> in terms of total sheep and goat herds, after the United Kingdom, Spain and Greece. Its position in top four was due to the programs that targeted the organization of farms or associations for young sheep raising and fattening in order to provide meat on the domestic and foreign markets.

The financial support to the sheep and goat sector from EU funds and the increased consumer demand for goat milk and dairy products represented motivational factors for farmers, materialized into a constant sheep and goat milk production in all the regions from Romania. In the period 2007-2016, farmers preferred to slaughter their animals in specialized units, and so the slaughter production increased from 3.7 thousand tons live weight in the year 2007 to 18.6 thousand tons in 2016.

Although the share of slaughter on specialized units increased from 3% in 2007 to 19% in 2015, it is still low compared to other EU member states; as regards the average slaughter weight, Romania is among the countries with the lowest average slaughter weight (12.8 kg/head).

The average farm size is low (29 heads/sheep farm and 11 heads/goat farm) and makes it difficult to adapt to the new performant technologies, due to the scarcity of own financial means and low access to other funding sources.

Ovine meat consumption is mainly occasional, with maximum values in the Easter period, and Romanian consumers' preferences for sheep and goat meat varies across regions, high consumptions being

found in the Sud-Est region, with Greek and Turkish influences and the region Centre, with sheep grazing tradition. Self-sufficiency was over 100%, in the period 2000-2016.

Sheep export is almost fully dependent on the orders from North Africa and Middle East, Romania permanently ranking 1<sup>st</sup> in EU-28 in the export of live sheep.

The support to the sheep and goat sector under the future Common Agricultural Policy is necessary, as besides the food source there is also the secondary product - wool; at the same time, sheep and goats contribute to the cultural wealth of European landscape. The support to the sector contributes to maintaining an important number of jobs, in the great agricultural areas from the EU, vulnerable from this point of view. In the absence of support measures, many sheep farmers will have to abandon this activity, with serious consequences on jobs, social dynamics in the countryside, environment and cultural heritage.

Romania initiated and implemented two important schemes to support sheep farmers. These refer to "De minimis aid for the implementation of the program supporting sheep farmers for selling wool" and "Choose the sheep" - scheme for promoting sheep meat and meat preparations consumption. The effects of these schemes, both initiated in 2017, began to be seen in the first months of 2018, in the collection of important quantities of wool in the wool collection centers and the slight increase of meat consumption.

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