

SUSTAINABLE GOAT FARMING IN THE CENTRAL AND EAST EUROPEAN REGIONS: III. THE ECONOMY ASPECTS

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Abstract

The number of goats is only about eight-ten % of the sheep population in the region, while the number of goat farms is sometimes similar that of the sheep farms. In order to evaluate the possible sustainability of the goat farming and breeding in the region a survey was developed and circulated among the countries in the region (Albania, Serbia, Slovenia, Hungary, Czech Republic, Slovakia, Croatia, Romania, Bulgaria, Greece, as well as Montenegro, FYR Macedonia, Moldavia, Ukraine, Russian Federation, Belarus, Armenia, and Georgia).

The answers to the following questions were requested and processed in this part of the study: target of production (self-consumption or various market), the prices of farm product (raw milk, live kids for slaughter, kid meat, cheeses), market for milk products and kids, selling age and body weight of kids, subsidy for goat farming, profitability of goat farming.

The most important information could be summarised as follows: the self-consumption had a very high ratio in utilisation of products, outside market from the family was growing, but still limited, especially for goatmeat, prices of products were changing in wide range in the countries studied, only limited part of the countries offered subsidy for goat keeping. The profitability is highly depending on the level of production intensity and size of farm.

Key words: market for goat products, prices of goat products, subsidy, profitability

INTRODUCTION

The goat farming and breeding as well as goat milk and meat production have many thousands of history in the central, Eastern and south-east regions of Europe. During the last two decades the whole economy of these countries were totally reorganized, and only limited information are available about the present situation of goat farming in these particular regions. The occasion of “ European Regional Conference on Goats 2014” gave a good opportunity to collect the knowledge about the situation of goat farming from the countries of nearly twenty countries of central and East part of Europe.

MATERIAL AND METHODS

In order to collect the most wide information and data about the goat farming in the regions of central, eastern, and south-east European countries a survey was developed and circulated among the experts of the countries.

The answers to the following questions were requested and processed in this part of the study: target of production (self-consumption or various market), the prices of farm product (raw milk, live kids for slaughter, kid meat, cheeses), market for milk products and kids, selling age and body weight of kids, subsidy for goat farming, profitability of goat farming.

The following countries were taking part in the data collection: Albania, Armenia, Belarus, Bulgaria, Czech Republic, Croatia, Georgia, Greece, Hungary, Macedonia FYR, Moldavia, Montenegro, Romania, Russia, Serbia, Slovakia, Slovenia, and Ukraine. Data was collecting from one organization per country except Hungary, from where the information of three organizations were used: Central Office of Statistics (Hungary-KSH); Hungarian Sheep and Goat Breeders’ Association (Hungary-MJKSZ) and Hungarian Sheep and Goat Dairying Public Utility Association (Hungary-MJKKHE).

The collected data were summarized and evaluated using Microsoft SPSS for Windows 10.0 software.

RESULTS AND DISCUSSIONS

Buying up prices of raw milk and selling prices of milk products

The raw milk prices were varied among countries (*Table 1*). In big part of the countries (Armenia, Bulgaria, Croatia, Georgia) 100 % of milk sold received a price between 0.3 and 0.4 Euros/litres. About 70% of the Romanian milk was belonging into this category, however, 15% of the milk valued less than 0.3 Euro/litres here. In Serbia the buying price was generally (100%) between 0.4 and 0.5 Euro/litre. This price category was dominating in Albania (83.5%) as well, but 35% of Hungarian and 10% of Romanian milk were also bought up on this price. In Greece the raw milk price between 0.5 and 0.6 Euro/litre was dominating, and big part of Hungarian milk (40%) was also sold on this price. In Slovakia 90% of milk sold on the price above 0.6 Euro/litre price level. In Slovenia, the buying up price was 0.7-0.8 Euro/litre, and the highest price was in Czech Republic, where the raw milk sold on the price on 1.3 Euros/litres in bio/eco shops.

The selling price of goat milk products (but speaking mainly about cheeses) had similar differences among countries. In four of the studied countries 100% of goat milk cheeses were sold on the price less than 6 Euros/kg (Albania, Armenia, Bulgaria and Georgia). The selling price between 6 and 10 Euros/kg were dominating in Greece and Serbia (100%), as well as in Slovakia (80%), and Hungary (40%). In Czech Republic the goat cheese prices were generally (100%) between 10 and 20 Euros/kg. Some 85% of the cheese in Croatia and 35% in Hungary were also sold on this price. There was a special case in Slovenia, where the price of fresh cheeses was 11 Euros-, and the mature cheeses were sold for 19 Euros per kg. Of course, there were some special quality cheeses, which had a price above 20 Euros per kg (in Slovakia 10%; in Croatia and Hungary 5-5 %).

Weaning and selling of kids

Weaning of kids at the age of one day was present in several countries (*Table 2*), however, it was dominated only in Serbia (50%), where the artificial rearing of kids on bigger farms was an everyday practice. Limited part of the kids was weaned at the age of one week in Croatia (10%) and Hungary (50%) and these kids also needed artificial rearing. The one month weaning age is dominating in Slovakia (80%) and Georgia (80%), but some other countries this system was also used: Croatia (41%); Slovenia (30%); Hungary and Serbia (20%). The two months weaning age was dominating in Armenia and Greece (80%), Slovenia (68%), and Hungary (60%), but this age had significant role in Croatia (35%), Serbia (30%), Albania (21.5%), as well as in Georgia and Slovakia (20%). In the case of Albania (78.5%) and Bulgaria (80%) dominating part of the kids was weaned above two months of

age. Beside of them this category also had a significant role in Armenia (20%), Greece (20%), and Hungary (10%).

For slaughter purpose the kids were sold out in four weight categories. The category between 8 and 12 live kg only looked for by certain markets, so these kids played a strong role in Hungary (30%), Albania (21.5%) and Slovakia (20%). The selling live weight between 12 and 16 kg was preferred in the case of Greece (80%), Albania (73.5%), Slovakia (70%), Hungary (60%), and Serbia (50%), Bulgaria (35%), and Slovenia (30%). The category between 16 and 20 kg live weight was most popular in Georgia (70%), Croatia (62%), Serbia (50%), but in Bulgaria (35%), and Slovenia (30%) also had significant ratio. The most preferred kid live weight for slaughter in Armenia was above 20 kg (80%), and Slovenia (70%), but in Serbia high ratio of kids (35%) were also belonging to this category.

The kids could be sold on the cheapest price in Slovakia (70% under 2 Euros/kg), and the Albanian kids had the highest price (100 % between 8 and 10 Euros/kg live weight). In most of the countries dominating price was between 2 and 3 Euros/kg live weight: Bulgaria, Hungary and Serbia (100%); Greece (95%), and Georgia (90%). Czech Republic (60%) was also belonging to this category. In Armenia all kids (100%) could be sold on the price between 3 and 5 Euros/ kg live weight; and this category was also dominating in Croatia (70%), and the left 40% of kids in Czech Republic were also sold on this price. Slovenia also had a special situation in this product as well, having 4 Euros / kg live weight price, in general.

The target of goat farm products

In general, the goat farm products do not have a well organised market in any countries of the studied regions (*Table 3*). It is especially true for slaughter kids and adults non breeding stock goats. The goat meat was dominantly consumed at the farm level in Slovakia and Georgia (80%), in Hungary (69%), in Armenia (50%), and in Romania (40%). In other countries this category covered much smaller ratio. The selling locally via informal relationships played a dominating role in Serbia (100%), Bulgaria (85%), Croatia (75%), Slovenia (50%), Albania (34.4%), Romania and Armenia (30%), and Hungary (29%). In Albania the biggest part of slaughter kids/goats were sold for local shops (43.8%), and this category played an important role in Greece (30%), Armenia (28%), and Slovenia (20%) as well. In Greece direct selling for slaughter was the dominating target of slaughter kids and goats (62%), and this category also played an important role in Slovenia (29%). In other countries its ratio was low. There was another not identified target which covered only some % of the animals including selling very young kids for zoo as feed for predators.

The situation was much better in the case of milk and milk products, but still quite big differences could be found among the countries. The on-farm consumption had a dominant ratio in Georgia (80%), and Slovakia (60%), and it was very important in Romania (40%), and Hungary (30%). The market for selling these products via informal relationships was present in every studied country, however, the ratio of this category was played dominant role only in Slovenia (50%), and had important ration in Hungary (35%), Croatia (25%), and Slovakia and Romania (20%). The local shops and restaurants had very important roles only in the case of Slovenia (40%) and Croatia (37%). The sold for buying up companies (dairies) had the dominant role in Greece (90%), Serbia (80%), Bulgaria (75%), and Albania (64.9%), but also played an important ratio in Croatia (31%), Romania (30%), and Hungary (25%). In the case of Armenia all four target was present but their distribution could not be determined.

There were various numbers of dairies in the studied countries, and the on-farm milk processing was not definitely a kind of general activity. In the case of Armenia, Croatia and Slovenia over the 75% of the goat farms had a kind of on-farm processing unit. In the case of Hungary it was between 50 and 75%. In Serbia and Slovakia only the 10-30% of farms had their own processing unit, while in other countries the on-farm processing was lower than 10%.

The subsidy for goat farming

The subsidy for helping goat breeding and/or farming is rather low in the studied countries. Practically no direct (€/doe) subsidy is given to goat farms in most of the countries. In Albania, taking part in gene conservation (20€/doe and 30€/buck), the purebred breeding (having 10-50 purebred animals farms receive 37.5€/doe), the full time goat farming (having 100-300 heads 3.6U/doe) is supported. In Bulgaria (20€/doe) and Croatia (17€/doe) the goat keeping is subsidized. In Hungary, a „de minimis” subsidy (10€/doe) could be received under inquiry. In Greece the goat farms could receive subsidy under SPS system based on the size of the land used. In other EU member countries (Czech Republic, Slovakia, Slovenia, Romania and Hungary) goat farmers could receive any subsidy under SAPS system, but not for goat farming. The goats could also be considered as supported animals under agro-environmental subsidy system in Hungary. In the other countries (Armenia, Georgia, and Serbia) the goat keeping / breeding is not subsidized. In order to re-build the small ruminant sectors a significant amount of subsidy was given to the farmers in Russia. This subsidy for reimbursement of costs spent for capacity increase of breed stock in all branches of goat and sheep breeding sectors in 2013 amounted to about 15 million euros. Similar system was utilised in Moldova in 2013, in which 100 lei/ kg live weight support was

given to the farmers to help the purchase of pure-bred sheep and goat breeding stock. Concerning Montenegro, in 2012, 402 goat farms had more than 10 heads of goats and could receive subsidy for 18538 breeding animals.

Improving profitability – would be necessary

The average profitability of goat keeping was highly varied from country to country (*Table 4*), and in some countries this trait has not been studied yet. It seems that the level of profitability was the lowest in Georgia getting less than 10 Euro/doe/year (80%). In the case of Serbia the annual income per doe was between 10 and 30 Euros (100%). In Greece 80% of does could produce between 30 and 50 Euros annually. This category was counting 40% in the case of Hungary. In Croatia the income of goat farms was well balanced. The 30% of farms goats could produce 100-200 Euros per year; and the ratios of 50-100 as well as 200-300 Euros per doe per year reached the 25-25% of the farms. In the case of Armenia 70% of the farms were belonging to the category of 100-200 Euros/doe/year.

Table 1: Purchase prices of goat milk and selling prices of cheese in Central and Eastern Europe

Country	Milk prices (% of farms)					Cheese prices (% of farms)			
	< €0.3/litre	€0.3–0.4/litre	€0.4–0.5/litre	€0.5–0.6/litre	> €0.6/litre	< €6/kg	€6–10/kg	€10–20/kg	> €20/kg
Albania	-	12.2	83.5	4.3	-	100	-	-	-
Armenia	-	100	-	-	-	100	-	-	-
Bulgaria	-	100	-	-	-	100	-	-	-
Croatia	-	100	-	-	-	-	10	85	5
Czech	-	-	-	-	€1.3/litre	-	-	100	-
Georgia	-	100	-	-	-	100	-	-	-
Greece	-	-	-	85	15	-	100	-	-
Hungary	-	10	35	40	20	15	45	35	5
Romania	15	70	10	5	-	-	-	-	-
Serbia	-	-	100	-	-	-	100	-	-
Slovakia	-	-	-	10	90	5	80	10	10
Slovenia	-	-	-	-	€0.7–0.8/litre	-	-	€11/13–19/kg	-

Table 2: Weaning ages, live body weights at sale and selling prices of kids in Central and Eastern Europe

Country	Weaning age (% of farms)					Live body weight at sale (% of farms)				Price (% of farms)			
	One day	One week	One month	Two months	Above two months	8–12 kg	12–16 kg	16–20 kg	Above 20 kg	Under 2 €/kg	Between 2–3 €/kg	Between 3–5 €/kg	Between 5–8 €/kg
Albania	-	-	-	21.5	78.5	21.5	73.5	5.0	-	-	-	-	100
Armenia	-	-	-	80	20	-	10	10	80	-	-	100	-
Bulgaria	10	-	-	10	80	15	50	35	-	-	100	-	-
Croatia	5	10	41	35	9	5	15	62	18	-	20	70	10
Czech Republic	no available data					no available data				-	60	40	-
Georgia	-	-	80	20	-	-	20	70	10	-	90	10	-
Greece	-	-	-	80	20	-	80	10	10	-	95	5	-
Hungary-MJKE HE	5	5	20	60	10	30	60	10	-	-	100	-	-
Romania	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	50	-	20	30	-	-	15	50	35	-	100	-	-
Slovakia	-	-	80	20	-	20	70	5	5	70	20	10	-
Slovenia	2	-	30	68	-	-	-	30	70	-	-	€4/kg	-

Table 3: Targets of surplus male kids, milk and milk products in Central and Eastern Europe

Country	Surplus kids (% of farms)					Milk and milk products (% of farms)			
	On-farm consumption	Local sales via informal relationships	Local shops	Sale for slaughter (incl. export)	Other target (zoo for feed)	On-farm consumption	Local sales via informal relationships	Local shops/restaurants	Sales to purchasing dairies
Albania	21.8	34.4	43.8	-	-	15.3	12.6	7.2	64.9
Armenia	50	30	28	-	2	✓	✓	✓	✓
Bulgaria	15	85	-	-	-	10	15	-	75
Croatia	12	75	13	-	-	8	25	37	31
Czech	no exact data available			-	-	no exact data available			
Georgia	80	10	10	-	-	80	10	-	10
Greece	3	5	30	62	-	10	-	-	90
Hungary	69	29	0.49	1.5	0.01	30	35	10	25
Romani	40	30	15	13	2	40	20	10	30
Serbia	-	100	-	-	-	10	10	-	80
Slovakia	80	10	-	10	-	60	20	10	10
Slovenia	1	50	20	29	-	10	50	40	-

Table 4: Profitability of goat farming in Central and Eastern Europe(% of farms)

Country	< €10/doe/year	€10–30/doe/year	€30–50/doe/year	€50–100/doe/year	€100–200/doe/year	€200–300/doe/year	> €300/doe/year
Albania	not yet studied						
Armenia	-	-	-	20	70	10	-
Bulgaria	not yet studied						
Croatia	-	-	10	25	30	25	10
Czech Republic	not yet studied						
Georgia	80	20	-	-	-	-	-
Greece	-	10	80	8	2	-	-
Hungary – MJKKHE	5	15	40	20	15	5	-
Romani	not yet studied						
Serbia	-	100	-	-	-	-	-
Slovakia	not yet studied						
Slovenia	not yet studied						

CONCLUSIONS

The above mentioned information made clear that the number of goats has been decreasing in the region with the exception of Romania. The main conclusions of this part of the study could be summarised as follows:

- There were significant differences among countries concerning raw milk and milk products prices.
- The self-consumption was still having significant role in goat production.
- The market for goat products was not organised properly, especially the meat market was missing in most countries.
- The market for goat farm products is not rally organised in the region, especially the meat market is rather poor. The milk is still the dominant income source on goat farm, however, under certain condition the meat could come on to the first place.
- According to the evaluations the product development is a kind of elemental demand in all studied countries for improving the profitability of goat farming.
- The profitability of goat farming seems to be improving with the increasing herd sizes.
- Limited subsidy for goat farmers is available in various countries which is not enough to preserve their own breeds for the future.
- Finally, the goat farming would also need some help following the dairy cattle, chicken or pigs in order to be able to improve the ability to survive and being profitable as well as keep the local domestic breeds involved in certain environmental conditions.

RECOMMENDATIONS

Most of the Mid, East and South-East European countries would need strong goat breeders and farmers organisations in order to help the individual farmers to be able to survive. Frequent regional meetings should be organised covering this part of the world to discuss the new results and develop a useful cooperation.

Even the markets for goat milk products would need urgent help to reach the necessary level of development, and the market for goat meat should be founded in this part of Europe.

Serious governmental supports are needed in these countries to preserve and protect the local indigenous breeds and being able to improve them. Without it or offering only low support the exotic breeds would take over the dominant role in goat farming, and the old genetic values would slowly disappeared.

The goat farmers would need basic and further education to be able to consume and digest the new information and developments and apply them

into their everyday managements in order to be able to build a sustainable and prospective future.

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