

COMPETITIVENESS OF AGRICULTURAL PRODUCTS ON THE MEAT- DAIRY CHAIN

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Abstract

The paper represents an analysis regarding the competitiveness of agricultural products on the meat-dairy chain from Romania. Livestock sector is an important sector of national economy in general and agriculture in particular, providing raw material for food and feed people. Revitalizing agriculture is difficult or even impossible without the development of livestock sector, by reconsidering the role and place that this sector must hold in the national economy.

Livestock sector is going through a difficult situation due to several factors: increased production costs caused by import competition, increased feed prices. With our accession to the EU livestock development will be determined by several factors whose combined action leads to the development of animal production imposed standards. Achieving these standards will certainly ensure Romanian agriculture development in general and livestock in particular.

Key-words: competitiveness, agricultural products, European Union

INTRODUCTION

Agriculture is a sector with considerable potential, occupying traditionally an important place in the structure of the Romanian economy. It is an important factor of social stability and maintaining ecological balance; is the branch that provides large quantities of food population and raw materials for food and nonfood industries. Besides the vegetable sector, livestock sector is an important sector of national economy in general and agriculture in particular, providing raw material for food and feed people. Revitalizing agriculture is difficult or even impossible without the development of livestock sector, by reconsidering the role and place that this sector must hold in the national economy.

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Livestock sector is going through a difficult situation due to several factors: increased production costs caused by import competition, increased feed prices. Specifics of the Romanian market is dominated 80% by small farms, for cattle milk subsistence is even more difficult because cattle herds are declining, and improperly sized farms are not competitive and production level is low and away from performances in countries with advanced animal husbandry. Today, in developed countries are shown two main trends of development:

- large and very large farms, which integrates production with recovery;
- small and medium-sized farms, which carries organic production.

In our country currently holding dimensional structure is as follows:

- subsistence farms, with 1-2 cows (95.43%);
- family farms with 3-15 cows (4.45%);
- medium commercial farms with 15-100 cows (0.13%)
- commercial farms with sizes above 100 cows (0.01%).

Therefore, in our country, the average size is 1.45 cows and heifers / holding, and in EU countries: the size varies from 13 dairy farms and 70 cows and heifers. Also in U.S. dairy farm size tends to 100 heads. In terms of area owned, it is considered that farms of 20-50 ha and over 50 ha have the highest economic importance. But the farm livestock is an important indicator of size. Among livestock, cattle in general and dairy in particular and useful agricultural area is a strong correlation. The most intensive livestock farming is in countries with small agricultural areas such as Holland, Belgium and Denmark.

The EU livestock farms are grouped into two categories, small and medium-sized farms. In countries like Greece, Italy, Portugal, Spain dairy farms (for example) do not exceed 10 to 16 heads. In the Netherlands, England, Denmark, Belgium and France the average farm size reached 30-70 cows heads. Pig farms get to the actual annual increase of 300-500 heads in countries like England, Holland, Denmark and Belgium and 20-80 heads in Italy, Greece, Portugal and Spain. Average number of cattle and pigs in EU countries (except Romania) is 40/holding respectively 80/holding. Regarding the distribution of livestock farms by size classes, one fact is clear for Western European livestock, namely the dominant feature is medium size holdings of livestock and livestock tending to increase flow intensification technology. The strength of the main farm animal species and production obtained are shown in Table 1.

The small size of dairy farms in our country, underdeveloped infrastructure, inconsistent agricultural policies and turbulent economic environment, especially in rural areas is reflected very well in the production of milk obtained as well as its structure, regarding its usage. According to the NIS (National Institute of Statistics) 1.3 million cattle live in 900,000 farms and milk for many of them is the only source of income. The problem of milk has become a hot topic with the abolition of many collection centers, small price

to purchase it by the milk processors and the disparity with European norms, as well as processing units, only about 40% of which are standard EU.

In contrast is the meat cattle breeding, which is a good alternative to milk production, a growing future ahead thanks to a large deficit in the European market in this sector due to constant increase in the price of its existing resources unexplored and their economic management. Beef cattle breeding is a new area for Romania, which requires time for education and transformation.

Food materials for meat derived from animal species that are bred to produce meat and meat products. The main groups of animal species that have the most significant share are: mammals (including cattle, sheep, pigs, goats, horses, hares, etc.) poultry (chickens, ducks, geese, turkeys, etc.); Fish ; other animals of culture (clams, snails, frogs, etc.). Unlike wild species from which they originated livestock raised for meat have a higher proportion of power structures, with reference to the muscles. Functions of the meat supply arise from its characteristics that are transformed by heat treatment in food particularly useful for human nutrition. Meat origin (species, breed, morphological parts, lifestyle, etc.) and the conditions for transforming it into food, produces a wide range of meat products. In the sphere of exchange **can define the following animal production:**

a). - Beef meat production represents about 35% of the total annual production of meat and about 5-6% of gross agricultural production in Romania. Thus beef sector includes the chain: production (calves for fattening, calves being prepared for slaughter and older cattle for slaughter including cows for meat), processing (fresh and processed products), wholesale and retail sale (which has links with the milk and dairy products along with other sectors of production and meat processing). Although there is some specialization, many farms and businesses that are involved in the beef (as mixed breeds), act in milk production as well. Also in Romania there are similarities between the systems of beef production and sheep. Beef is often distributed and sold with or very close to pork or lamb.

b). Sheep-meat production is related to increased numbers of this species and is found all over Romania. In the recovered products, meat (along with selling horses and fur animals) have less than 4% of the country's agricultural production.

c). - Production of pork, is the most important type of meat in markets existing in Romania, representing over 50% of the total meat production. Traditionally, Romania was a net exporter of pork, but since 1998, has entered into a trade deficit, caused by a pronounced decline in the pork production.

Among the causes that led to a decrease in the pig population in Romania can be mentioned:

- **unfair competition caused by massive imports of live pigs and pork as a percentage of 45-50% subsidized by exporting countries (Hungary and Poland) ;**
- lack of financial resources to continue the production process, due to unfavorable market situation;
- late receipt of subsidies;
- lack of fodder and grain for domestic production of protein fodder.

Many slaughter and processing units operate with several species, and pork represent a quarter of value added food industry in Romania. The structure of production is concentrated in two components of the sector: small private producers, with emphasis on their own consumption or local sales, large integrated units, which often deals with growth, fattening, slaughtering and processing, all these activities being carried out under a single commercial enterprise.

d) - Production of poultry, including the production of chickens, ducks, geese, turkeys, guinea fowls and birds of the family of ornamental birds. Poultry production was estimated at about 15% of all livestock production. This sector includes large-scale integrated units (10 companies also supplied about 75% of the total market for poultry) and small-scale household production (but which produce about 60% of total poultry meat).

In 2010, the slaughtering of cattle in specialized industrial units, by the number of heads, increased by 10.5% in comparison with the previous year and slaughter of pigs increased by 0.5%. Beef production increased by 13.7% and pork increased by 5.4%. The number of sheep and goats slaughtered in specialized industrial units increased from the previous year with 213.4% and meat production of sheep and goats has also increased, by 228.5%.

Number of poultry slaughtered in slaughterhouses decreased compared to 2009 by 5.6% and poultry production fell by 4.2%.

Table 1. SLAUGHTER CATTLE , PIGS, SHEEP AND GOATS IN SLAUGHTERHOUSE (by INS)

Name species	Number of heads slaughtered		Live weight (tons)		Average weight (kg)		Carcass weight (tons)	
	2009	2010	2009	2010	2009	2010	2009	2010
Cattle	117358	129699	50531	57336	430,6	442,1	24912	28313
Swine	2887742	2900927	295105	309187	102,2	106,6	222167	234194
Sheep and goats	120241	376877	2683	9348	22,3	24,8	1349	4432

Table 2. Birds slaughter slaughterhouse (as INS)

Name species	Number of heads slaughtered		Live weight (tons)		Average weight (kg)		Carcass weight (tons)	
	2009	2010	2009	2010	2009	2010	2009	2010
Poultry total of which:	186484928	175969903	404691	392241	2,2	2,2	300086	287458
Chicken	185572032	175000827	401908	387692	2,2	2,2	297980	283994
Layers	907517	824198	2724	2586	3,0	3,1	2056	1941

In this context we can say that the Romanian production of meat is less competitive by international standards and should be borne in mind that with the accession of Romania to the European Union is much stronger competition from meat and we have to face. Growth and operating systems for meat animals are mostly extensive, with few exceptions in the pig and trout where there is an intensive, but with less weight. This leads to the development of large periods of weight gain, due to low rates of feed conversion because it does not provide an energetic-protein ratio, leading to the development of reduced average daily gains and lower slaughter weight. Because of this, meat production is a byproduct, such as for example in cattle that are operated primarily for milk or sheep.

Housing conditions are poor and the impact on animal welfare and production performance. Feeding animals in small farms, family is the poor quality of feed raw, which leads to higher, inefficient consumption. Very few small and medium producers have commercial orientation and seeking to improve their technical efficiency. Producers often lack market information. In Romania there is a quality classification of carcasses according to impelled by price, payment being made according to the weight of carcasses. Much of the quantity of meat is sold on the market in the peasant movement which can include public health risks due to low hygienic quality of meat producers. In parallel with these markets there are small shops that provide limited facilities for maintaining quality, especially of fresh produce and supermarkets which, in general, relies on imports for all sorts of meat. Link retailers establish quality and quantity of meat, especially to pork and domestic industry can not meet these requirements, leading to increased imports and decreased exports of Romanian meat. Slaughtering cattle were predominant in the North-East (41.5%), Northwest (14.6%) and South-West Oltenia (12.9%). pigs held the largest share in the regions: Western (above 25.0%), South-Muntenia (16.9%) and Southeast (15.3%) and the slaughtering of sheep and goats in regions West (40.1%), Southeast (above 20.0%) and South-Muntenia (14.2%). In 2010, slaughter of birds have been prevalent in the South-Muntenia (31.1%), Northeast (18.0), Central (15.7%) and Southeast (13.6%).

Impediments to growth of Romanian exports of meat are: inefficient processing industry, poor market infrastructure development, poor quality of meat, which do not meet European standards. Market information is an important tool to respond to change and to identify possible opportunities. In addition, activities supporting the internal market opportunities and export, would help manufacturers, retailers and processors to know the market requirements and consumer preferences. Limited number of certified slaughterhouses for slaughtering animals according to EU standards currently limit the opportunity for sales transformation on export into carcasses sales (sheep and cattle). At farm level, opportunities for improved efficiency and an increase in quality should be sought in ensuring a better genetic material, improved feeding and care of animals, housing conditions.

The introduction of the classification of carcasses „Europ” will allow a fair payment based on carcass quality and production quality will increase because now the price is not correlated with quality of carcass. It is also necessary to support livestock towards increasing the average size of farms.

In terms of processing is necessary to improve competitiveness of processed and orientation in accordance with minimum safety food requirements imposed by European Union. For restructuring and developing the meat sector there are required investment directions in:

- slaughterhouses ;
- cutting equipment;
- modernization and replacement of refrigeration even in storage to align storage of meat and meat products to EU norms;
- packaging, labeling, promotion;
- modernization and reception control animals, cutting, processing, marketing.

Currently, in Romania, there are few viable small and medium farms livestock for meat and it is necessary to help those subsistence farms that have the potential to develop into commercial units. To improve the flow of animals for meat from small producers who are the majority in organized markets is needed improved market infrastructure. Producers suffer from a lack of market information is needed on prices and volumes traded. In addition, surveys and analysis of market opportunities, internal and external, could help farmers, processors and traders to know the market requirements and consumer preferences. It is necessary to improve the processing sector in satisfying direction in accordance with EU rules and regulations, and consumer food safety in Romania, and especially to produce products with higher added value (high degree of workmanship) required increasingly by consumers and for exports. Animal slaughter and meat processing small scale, taking place today, cause high costs and do not meet hygiene and quality standards. Most of the amount of meat consumed in Romania comes from small-scale breeders. It is difficult to impose quality control for close to subsistence production, which create bad risks for animal health and consumer health. As a conclusion about the efficiency and competitiveness of the Romanian meat should be realized that a competitive economy will involve measures and actions will be felt first of all, the current subsistence producers.

In the chain of milk and dairy derivatives by the concept of milk with no indication of the kind of source, means cow's milk. If it comes from other species, must be specified origin: milk of sheep, goat, buffalo, etc.. Depending on different criteria in practice one can encounter different capitalization names:

- after composition, milk situation that can be fully normalized and creamed;
- after the primary transformation processes (the composition), milk can be: raw, pasteurized, sterilized, concentrated and powder;
- by origin, milk can be: cow, sheep, full or mixed.

In the recovery circuit is taken milk from cows, sheep, goat and buffalo. The largest share is cow's milk (95%) and sheep. Milk supply are complex functions of this product is considered one of the most complete food. Contribution required by the trofin, but also by sensory properties. For this reason milk is considered a strategic product of the food market, which is recovered as such is subjected to fresh or processing. On milk production in 2010 compared to the previous year, the amount of cow's milk collected from farm processing facilities and collection centers decreased by 87 838 tonnes (-8.9%). The largest decrease in production in 2010 compared to 2009 occurred in milk powder by 422 tonnes (-10.3%). Cheese production has also declined in 2010 compared to 2009, with 5520 tonnes (-7.9%). Evolution of the quantity of cheese produced exclusively from cow's milk (94.4% of total production of cheese) remained the same trend. Melted cheese production fell by 874 tonnes (-7.3%), oil production fell by 737 tonnes (-7.0%) and consumption of cream production fell by 646 tonnes (-1.4%) in 2010 from the previous year. Sour milk products (yogurt, drinking yogurt and others) had, in 2010 compared with 2009, the largest increase, with 1948 tonnes (+1.3%) and was followed by production of consumer milk 1258 tons (+0.6%).

Table 3. COW MILK PRODUCTION UNITS COLLECTED by subscribers DAIRY PROCESSING AND MAIN development regions in 2010 (tonnes - by INS)

Development regions	Cow's milk collected	Drinking milk	Dairy fresh *)	Cheese (including urdă)
Total country	903750	223176	195118	63962
North - East	197224	46100	15810	13190
South - East	57238	10995	13510	5741
South - Muntenia	64775	17137	18677	8749
South - West Oltenia	7922	2415	882	880
West	26369	c	c	2274
North - West	201589	37867	14001	16359
Centre	275895	86416	52123	15729
Bucharest - Ilfov	72738	c	c	1042

*) Includes sour cream and milk
c =confidential data

CONCLUSIONS

The largest quantities of cow's milk were collected in the Centre (30.5%), Northwest (22.3%) and Northeast (21.8%). Drinking milk occurred mainly in the Centre (38.7%) and Northeast (20.7%).

Bucharest-Ilfov, Central and South-Muntenia have over 70.0% of the production of fresh dairy products (cream and sour milk).

The cheese was mainly in the North-West (25.6%), Central (24.6%) and Northeast (20.6%).

In this context, on the milk market in Romania, you can define the following characteristics:

- required uniform throughout the year;
- consumption of milk and milk products considered below normal;
- the existence of large urban centers that attract large consumption;
- different level of consumption in urban and rural;
- generalization of the individual producers own consumption;
- atomicity and territorial dispersion of supply, with large regional differences and seasonal fluctuations;
- high degree of perishable dairy products requiring enhanced protection throughout the chain flow;
- very low rates of market held by the vast majority of operators in the sector;
- there is increased competition and direct;
- reduced weight of the quantities of raw materials delivered milk processing sector;
- not using the full capacity of processing milk production;
- lack of professional organization of dairy farmers;
- supply-demand imbalance in the internal facilitated external supply milk and dairy products;
- lack of organization milk routes, the prevailing problems of collection and distribution of raw milk dairy;
- practicing a system of prices unfavorable to producers;
- reduced investment funds available to producers who have difficult access to credit;
- lack of coherent policies and guidance and support (especially financial).

Milk supply is conditioned on the technical factors (number and breed herds of cows, their efficiency, growth and feeding system, disease prevention, etc.), economic factors (related to the ratio between milk and feed prices, conditions remuneration of staff working in milk production and outside the industry, changes in the structure of production and dairy farming units, etc.). Today we can say that there is still a low quality milk supply is determined mainly by quality feed and lack of guidelines for quality and hygiene on farms. Milk quality is also adversely affected by the lack of cooling facilities on farms and collection points.

So, for integration in the EU livestock sector, measures to meet EU requirements relating to:

- increasing the share of modernized commercial farms;
- stimulate and expand investments in family farms;
- stimulate recovery by quality production;
- ban the sale in inappropriate places;
- the introduction of the farm records;
- individualisation of livestock;
- stimulate the use of calves fed milk powder;
- organize collection centers according to EU principles;
- extension activity artificial insemination;
- quantity and quality control for each supplier, ensuring the processing and storage;
- use of research in animal husbandry as advisory support for a more robust and more efficient consulting.

Farms must comply with internal standards community environmental, hygiene and animal welfare.

With our accession to the EU livestock development will be determined by several factors whose combined action leads to the development of animal production imposed standards. Achieving these standards will certainly ensure Romanian agriculture development in general and livestock in particular.

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