

RESEARCH ON THE TRENDS IN ANIMAL PRODUCTION IN THE LAST DECADE IN ROMANIA

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Abstract

The paper has the purpose to analyze the trends in the animal production in Romania. The empirical data were collected from the National Institute of Statistics for the period 2007-2016. Using the trend method, and indices method, it was presented the evolution of animal production value, and its share in the value of agricultural production, livestock by species, animal production: meat, milk, eggs, honey, the position of Romania in the EU-28 livestock and animal production, average consumption of animal products per inhabitant, price at farm gate and basic prices for products of animal origin, average acquisition prices for animal products and average price of animal products in the agro-food market. Animal production value declined by 30 % accounting for Lei 23.8 billion in 2016, with a share of 33.8 % in the value of agricultural production. The livestock declined in case of bovines, pigs and poultry, but increased in case of sheep, goats and bee families. The quantitative animal production decreased regarding total live weight at slaughter in case of bovines and pigs, it increased in case of poultry and remained stable in case of sheep and goats. Milk production declined, egg production remained stable and honey production increased. While meat production had a slight increase per inhabitant, meat consumption declined. Both milk production per inhabitant and milk consumption decreased. Both producer price at farm gate and the basic price for the products of animal origin registered a growth in the analyzed period, they are not enough high to cover production costs mainly in dairy and pig farms, despite of the allotted subsidies. This situation reflected a descending trend in animal production with a negative impact on the farmers' income, market offer, demand/offer ratio. Romania is not competitive in the sector of animal production with other EU countries and remains a net importing country of animal products.

Key words: livestock, production, consumption, price, milk, meat, eggs, honey, Romania

INTRODUCTION

Agriculture is one of the most important branches of Romania's economy, assuring food for population and raw materials for processing industry, jobs for incomes for rural population and agro-food products for export [10].

Agriculture contribution to GDP is about 5.6 % compared to the contribution given by industry, trade and other economic branches [45].

During the last decade, and mainly after Romania's entry into the EU in 2007, agriculture has changed regarding farms structures and applied technologies looking for keeping pace with the new challenges in the competition with other EU countries, with risk and uncertainty, with growths and declines [11].

Innovation and modernization of technical endowment and the application of the new

technologies, production diversification and an efficient management could assure the development of agriculture and a high economic efficiency in this sector of the economy [9, 56].

Animal production is called to meet consumers' needs for milk, meat, eggs and other products of animal origin and also to meet industry requirements for raw materials.

Animal production is facing important changes regarding the number of farms, average farm size, production orientation, diversification, and technologies, livestock and its structure by species and animal categories yields and production, product quality, production costs, farm inputs and their costs, productivity and economic efficiency in order. More than this, animal production is a source of agro-food products for export giving its contribution to the international trade.

In this context, the present paper aimed to analyze the trends in the development of animal production in Romania in the period 2007-2016, regarding livestock by species, animal production (meat, milk, eggs, honey), consumption of products of animal origin and prices at the farm gate, basic prices and prices in agro-food market.

In this way, we could have a comprehensive pictures on the direction and intensity of animal production evolution in Romania and to evaluate its position among the EU countries.

MATERIALS AND METHODS

The paper is based on a large bibliography in the field and on the empirical data collected from the National Institute of Statistics, Tempo online Data base for the period 2007-2016.

The main studied indicators were: the evolution of animal production value, the evolution of the share of animal production in the value of agricultural production, the evolution of livestock by species: bovines, pigs, sheep, goats, poultry and bee families; the evolution of quantitative animal production: meat, milk, eggs, honey, the position of Romania among the EU-28 member states for livestock and animal production, the evolution of the average consumption of animal products per inhabitant, the evolution of price at farm gate and basic prices for products of animal origin, the evolution of average acquisition prices for animal products and average price of animal products in the agro-food market.

The analysis was based on the indices method, comparison method, synthesis and deduction. The evolution pointed the level of the studied indicators in the year 2007, 2011 and 2016.

RESULTS AND DISCUSSIONS

The evolution of the animal production value. During the analyzed period, the value of agricultural production increased by 47.5 % in 2016 when it was Lei 70.4 billion. This ascending trend was sustained by the both sectors: crop production and animal production, whose values recorded an increasing tendency.

In 2016, the value of animal production reached Lei 23.8 billion, being by 30 % higher than in 2007 (Lei 18.3 billion)(Fig.1.).

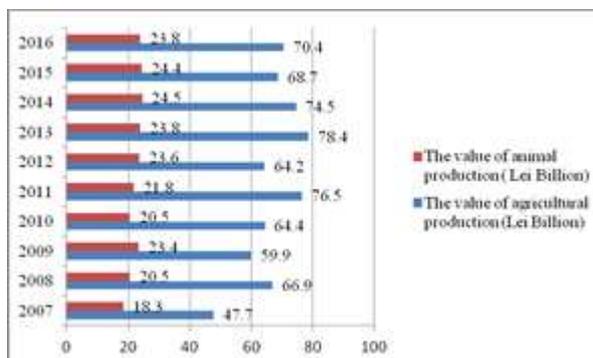


Fig.1. The evolution of the agricultural production value and of the value of animal production in Romania in the period 2007-2016 (Lei billion)

Source: Own determination, Data from NIS Tempo online, 2017 [13].

As a consequence, the share of the value of animal production registered a relatively decline in the animal production value, from 38.3 % in the year 2007 to 33.8 % in the year 2016 (Fig.2.).

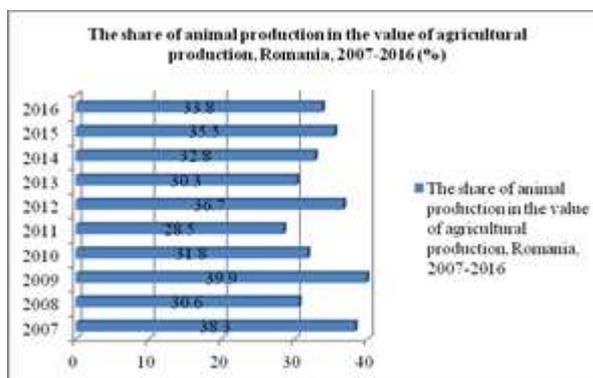


Fig.2. The evolution of the weight of the value of animal production in the value of agricultural production in Romania in the period 2007-2016 (%)

Source: Own determination, Data from NIS Tempo online, 2017 [13].

This "image" of the value of animal production in Romania reflects that animal production is not a competitive branch of agriculture as it should be [3].

The main causes which justify the reduction of the value of animal production during the last decades are: the small animal farm size, the plotted land surface, the reduced surface for producing forages and low forage production due to the climate change, the reduction of the

livestock in cattle, pigs and poultry, the non corresponding technical endowment, animal feeding and maintenance, the extensive animal raising in small subsistence and semi subsistence farms. Most of the animal farms are lacked of fixed and working capital, are typical subsistence households owning a small number of animals, the labor force has a low training level, and as a result the productivity is low, the production performance in terms of yield and product quality is much lower compared to the level in the EU countries with a high developed animal production.

Under this situation, the market requirements are much more covered by imports and in a relatively less measure by the domestic production with a few exceptions. Therefore, Romania is at present a net importing country of agro-food products of animal origin [44, 53].

The evolution of the livestock. In the analyzed period, the evolution of the livestock registered a decreasing trend in case of bovines (-27.29%), pigs (-20.29%) and poultry (-7.74%). In 2016, in Romania there were 2,049.7

thousands bovines compared to 2,818.9 thousands in 2007. Also, there were 4,707.7 thousand pigs compared to 6,564.9 thousands in 2007; also there were 75,689.8 thousand poultry compared to 82,035.5 thousands in the year 2007.

A positive increasing trend has been noticed in case of three animal species: sheep, goats and bee families.

In 2016, the number of sheep was 9,875 thousand heads, by 16.59% more than in 2007, when it registered 8,469.5 million heads.

The number of goats registered the fastest dynamics, the growth rate for the whole analyzed period being 71.44%. In 2016, Romania had 1,483 million goats compared to only 865 thousands in 2007. The number of bee families increased by 46.31% from 982.3 thousands in 2007 to 1,477.3 thousands in 2016 (Table 1). Similar results regarding the evolution of livestock in Romania were found by [12].

Table 1. The livestock evolution in Romania in the period 2007-2016 (Thousand heads)

	2007	2011	2016	2016/2011 %
Bovines	2,818.9	1,988.9	2,049.7	72.71
Pigs	6,564.9	5,363.7	4,707.7	71.71
Sheep	8,469.5	8,533	9,875.4	116.59
Goats	865	1,236	1,483	171.44
Poultry	82,035.5	79,841.6	75,689.8	92.26
Bee families	982.3	1,249.6	1,473.3	146.31

Source: Own determination, Data from NIS Tempo online, 2017 [13].

The reduction of the bovine livestock was determined by many factors, among which the most important are: the non sufficient surface for producing forages and the low forage production due to the droughts, rainfalls and other extreme meteorological phenomena, the improperly maintenance and use of the pastures and meadows, the improperly feeding at the requirements level, the low reproduction indicators, the low use of the artificial insemination, the low price at the farm gate per milk kilogram and per kilogram live weight at deliver, the insufficient subsidies to support cattle breeders, pig breeders and poultry breeders [56].

Regarding Romania's position in the EU-28 based on its livestock, it deserves to mention that it comes on the 10th position with 2.05 million heads bovine livestock after France, Germany, United Kingdom, Ireland, Italy, Spain, Poland, Netherlands and Belgium. It also comes on the 9th position with 4.71 million pigs after Spain, Germany, France, Denmark, Netherlands, Austria, Italy and Belgium. It also comes on the 3rd position for its 9.88 million sheep after United Kingdom, and Spain, and on the 3rd position for 1.48 million goats after Greece and Spain [7]. (Table 2).

Table 2. Romania's position among the EU-28 countries for its livestock in 2016 (million heads)

Country	Bovines		Pigs		Sheep		Goats	
	Position	Million heads	Position	Million heads	Position	Million heads	Position	Million heads
EU-28	-	89.08	-	147.20	-	87.10	-	12.78
France	1	19	3	12.79	6	7.16	4	1.20
Germany	2	12.47	2	27.38	9	1.57	9	0.14
United Kingdom	3	9.81	10	4.53	1	23.82	10	0.10
Ireland	4	6.61	-	-	7	3.44	-	-
Italy	5	6.31	7	8.48	5	7.28	5	1.03
Spain	6	6.26	1	29.23	2	15.96	2	3.09
Poland	7	5.97	-	-	-	-	-	-
Netherlands	8	4.28	5	11.88	-	-	6.	0.50
Belgium	9	2.50	8	6.18	-	-	-	-
ROMANIA	10	2.05	9	4.71	3	0.88	3	1.48
Denmark			4	12.28				
Austria			6	11.11				
Greece					4	9.74	1	3.89
Portugal					8	2.07	7	0.35
Bulgaria					10	1.36	8	0.24

Source: Eurostat Statistics Explained, Agricultural Production-animals, 2017 [7].

The evolution of animal production. As a consequence of the statement of the livestock, animal production has registered a different situation from a species to another.

The meat production in terms of weight of the animals for slaughtering for consumption declined in case of bovines and pigs, it increased in case of poultry and remained stable in case of sheep and goats.

In 2015, the total live weight of animals at slaughter accounted for 14,31 thousand tons, by 4.80 % less than in 2007, when it was 1,503 thousand tons (Table 3).

The total live weight of cattle at slaughter declined by about 40 % from 333 thousand tons in 2007 to 200 thousand tons in 2015. This was due to the reduction in the number of bovine livestock and the low average live weight at slaughter, the non corresponding feeding, the use of the extensive fattening system which did not assure a high daily gain (Table 3).

The total live weight of pigs at slaughter decreased by 12.50 % from 642 thousand tons in 2007 to 562 thousand tons in 2015. This was caused by the reduction of the number of pigs, the crisis of piglets for fattening in the market, the non corresponding feeding and low daily gain, the problems with sow reproduction and the artificial insemination used at a small scale,

which did not increase enough the number of piglets per sow [34, 46, 49]. (Table 3).

The total live weight of sheep and goats remained stable in 2015 at the level of 2007, that is 110 thousand tons (Table 3).

The total live weight at slaughter for poultry increased by 34.13 % from 416 thousand tons in 2007 to 559 thousand tons in 2015, as a consequence of the development of broilers fattening with a high productivity and profit rate producing fattened chickens over 2 kg/head at slaughter in the industrial units, most of them being integrated along the whole product chain (Table 3). In the industrial poultry companies, profitability rate is high, proving the broilers fattening has the highest profit rate [19, 30, 54, 59].

The new orientation in the EU policy regarding the development of meat production could advantage Romania for producing more meat [61].

The total milk production declined by 19.48 % from 61,048 thousand hl in 2007 to 49,156 thousand hl in 2015. This was caused by the reduction by 32.26 % of the total milk production coming from dairy cows and female buffaloes. In 2016, cows and female buffaloes produced 42,664 thousand hl milk (including calves consumption) compared to 54,875 thousand hl in 2007 (Table 3).

This was caused by the diminishing milking livestock, the reduced production performance of milk/cow/lactation, the non corresponding feeding, the reproduction problems, the insufficient use of the artificial insemination with frozen from the high breeding value bulls and the use of natural mating at a larger scale,

the lack of a corresponding selection of young female cattle and heifers and of a corresponding breeding programme. Also, the small size of dairy farms, most of them lacked of a modern technical endowment led to a low milk yield [1, 2, 16].

Table 3. The quantitative animal production, Romania, in 2007 and 2015

	MU	2007	2015	2015/2007%
Weight of animal for slaughtering for consumption (live weight)	Thousand tons	1,503	1,431	95.20
-Bovines	Thousand tons	333	200	60.06
-Pigs	Thousand tons	642	562	87.50
-Sheep and goats	Thousand tons	110	110	100
-Poultry	Thousand tons	416	558	134.13
Total milk, of which:	Thousand hl	61,048	49,156	80.52
-Cow and buffalo milk (calves consumption included)	Thousand hl	54,875	42,664	77.74
Eggs	Million pieces	6,522	6,555	100.50
Honey	Thousand tons	20,199	35,000	173.27

Source: NIS, Animal livestock and animal production, 2016 and NIS Press Release No.120/June16,2008 [14, 15].

In the subsistence farms, a part of milk is used for calves consumption, for family needs and for feeding other animals from the household. This could also influence in a negative way the marketed milk production and farmer's income [25, 42].

All these aspects had a deep impact on gross margin and farmers' income, where gross product value was influenced not only by production but also by milk price offered by processors, meat price per kg live weight for the culled cow at slaughter, and for the calf for fattening Similar results were found by [18, 24, 25, 27, 29, 31].

In this way, along the years, the dairy farmers were facing many times the situation that the price at the farm gate did not allowed to cover production cost.

Also, milk quality did not always fit to the standards and as a consequence the producers received a lower price. The subsidies also had not been enough to balance the financial situation in the dairy farms, a reason as farmers to complain [52].

However, at present it is a lack of fresh milk offer in the market, and this is a reason for milk processors to buy milk from abroad to balance the demand on the internal market, affecting the Romanian milk producers [33, 60].

Despite that cow and buffalo milk have the highest share in total milk production, during the last decade, it was noticed a continuous growth of milk coming from sheep and goats which is considered a healthier milk with small fat globules which could be easily assimilated. This aspect encouraged the sheep and goat breeders to increase the livestock for these two species whose maintenance and milk production cost is lower compared to cows [6, 21, 37, 41].

The egg production remained relatively stable, in fact it registered just 0.5 % growth rate in the period 2007-2015. In 2015. the egg production accounted for 6,555 million pieces compared to 6,522 million in 2007.

This situation was favored by the lack of one day chickens on the domestic market, the increased price for the one day chickens and concentrated fodder which had a high share in the production costs, the imports of eggs traded at a lower price on the domestic market, and the increased price for farm utilities mainly electricity [20]. (Table 3).

In the commercial poultry companies egg production is efficient from an economic point of view, egg cost being able to be covered by market price [23].

The honey production increased by 73.27 % from 20,199 thousand tons in 2007 to 35,000

thousand tons in 2015. This was the result of the increased number of apiculturists and also of apiaries, of the number of bee families per apiary, the increased honey yield per bee family, the use of nutritional supplements and biostimulators in the years unsuitable for pickings [51]. Also, the low honey consumption on the internal market and the low acquisition price per honey kg have encouraged beekeepers to raise more bee families and to grow the apiary size over 50 bee families and mainly over 100 bee families, a size which is the most efficient from an economic point of view [26, 28, 35, 36, 39, 47]. Also, the beekeepers set up associations in many counties of Romania in order to build centers for honey collection, bottling and labeling to market their honey under an own brand as in the South Muntenia and Center of Romania [17].

Due to the fact that the Romanian honey is of high quality and due to the increased demand of honey on the Western European market, the beekeepers have oriented to honey export where consumption is much higher than 0.5-0.6 kg/inhabitant in Romania [40].

In 2015, Romania was on the top position in the EU-28 for its production of 35,000 thousand tons of honey (Table 3).

Regarding Romania's position in the EU-28 for the number of dairy cows and collected milk, the situation is the following: Romania comes on the 8th position with 1,191 thousand dairy cows after Germany, France, Poland, United Kingdom, Netherlands, and on the 18th position for 919 thousand tons of milk collected from dairy cows after Germany, France, United Kingdom, Netherlands, Poland, Italy, Spain, Ireland, Denmark, Belgium, Austria, Sweden, Czech Rep., Finland, Portugal and Lithuania [8]. (Table 4).

Table 4. Romania's position for the number of dairy cows and milk collected from cows in the EU-28 in 2016

Country	No. of dairy cows (1,000 heads)		Milk collected from cows (1,000 tons)	
	Position	1,000 heads	Position	1,000 tons
EU-28	-	23,595	-	151,588
Germany	1	4,285	1	31,879
France	2	3,661	2	25,323
Poland	3	2,134	5	10,874
Italy	4	2,057	6	10,500
United Kingdom	5	1,918	3	15,191
Netherlands	6	1,717	4	13,331
Ireland	7	1,240	8	6,585
Romania	8	1,191	18	919
Spain	9	844	7	6,800
Denamark	10	570	9	5,278
Belgium			10	3,988
Austria			11	3,103
Sweden			12	2,933
Czech Rep.			13	2,482
Finland			14	2,394
Portugal			15	1,935
Hungary			16	1,536
Lithuania			17	1,438

Source: Eurostat, Milk and Milk products Statistics, 2016 [8].

Regarding Romania's position in the EU-28 for meat production in terms of thousand tons of carcass weight, it comes on the 14th position with 58 thousand tons of carcass weight from bovines, on the 12th position for the carcass weight from pigs with 337 thousand tons, on the 10th position for the carcass weight of sheep with 8 thousand tons, and on the 9th

position for poultry carcass weight with 391 thousand tons [7].

These positions reflects that Romania is not still able to assure a high live weight of animals at slaughter and a corresponding fattening gain, feeding and carcass quality compared to other EU countries (Table 5).

Table 5. Romania's position in the EU-28 for meat production (thousand tons of carcass weight) in 2016

	Bovines		Pigs		Sheep		Goats		Poultry	
	Position	Thou. tons	Position	Thou. tons	Position	Thou. tons	Position	Thou. tons	Position	Thou. tons
EU-28	-	7,799	-	23,440	-	713	-	45	-	14,400
France	1	1,462	3	2,206	3	83	3	6	3	1,669
Germany	2	1,148	1	5,579	7	22	-	-	4	1,525
Italy	4	810	6	1,544	6	31	4	2	6	1,366
United Kingdom	3	912	9	919	1	290	-	-	2	1,791
Ireland	6	588			4	61				
Spain	5	638	2	4,059	2	117	2	10	5	1,524
Poland	6	501	4	1,963					1	2,268
Netherlands	7	416	7	1,453	8	13				
Austria	9	227								
Belgium	8	278	8	1,061					8	461
Sweden	10	131								
Denmark	11	129	5	1,567						
Portugal	12	91			9	10				
Finland	13	86								
ROMANIA	14	58	12	337	10	8	-	-	9	391
Hungary			10	432					7	508
Portugal			11	375					10	326
Greece					5	54	1	21		

Source: Eurostat Statistics Explained, Agricultural Production-animals, 2017 [7].

The animal production per inhabitant. As a result of the evolution of animal production and the demographic dynamics in Romania in the analyzed period, the animal production per inhabitant increased by 3.19 % in case of meat, it declined by 16.53 % in case of milk, and slightly increased by 0.6 5 in case of eggs.

In 2016, meat production per inhabitant was 74.3 kg compared to 72 kg in 2007, 244 liters milk compared to 292.3 liters in 2007, and 314 eggs compared to 312 pieces in 2007 (Table 6)

Table 6. Animal production per inhabitant in Romania in the period 2007-2016

	MU	2007	2011	2016	2016/2007%
Meat	Kg/capita	72	67.4	74.3	103.19
Milk	Liters/capita	292.3	248.5	244	83.47
Eggs	pieces	312	314	314	100.6

Source: Own determination, based on NIS Tempo on line, 2017 [13].

The average consumption of products of animal origin per inhabitant. The consumption of meat per inhabitant declined by 14.5 % from 66.6 kg in 2007 to 57 kg in 2016. This happened because of the high price of meat in the market and low incomes/household even thou the incomes raised during the last years. Meat consumption in Romania is still a low one compared to the level in the developed countries, reflecting a lower living standard, as meat consumption/inhabitant is one of the key indicators reflecting the living standard level [4, 5, 50, 57, 58].

The position of meat sorts in consumption structure, in the decreasing order, is: pork, the traditional meat in Romania, and poultry, followed by beef and mutton and lamb. Of course, pork is the most preferred meat by the Romanian consumers, but also poultry meat due its high quality, rich content in protein, good taste when is cooked and convenient price [19, 22, 38].

Milk consumption also declined by 12.24 5 from 262.3 kg/capita to 230.2 kg, because of the high price of packed milk traded in supermarkets and low income/household [43].

The consumption of eggs declined by 7.47 % from 13.4 kg/capita in 2007 to 12.4 kg/capita in 2016. The situation was caused by the high price of eggs, low income level/household and more awareness of consumers regarding the

increase of cholesterol if egg consumption is high.

Even thou, honey consumption increased by 50 % from 0.4 kg/capita in 2007 to 0.6 kg in 2016, it is still a low consumption compared to the level in the developed EU countries (Table 7).

Table 7. Average consumption of products of animal origin per inhabitant, Romania, 2007-2016

	MU	2007	2011	2016	2016/2007 %
Meat	Kg/capita	66.6	56	57	85.5
Milk	Kg/capita	262.3	234.5	230.2	87.76
Eggs	Kg/capita	13.4	12.5	12.4	92.53
Honey	Kg/capita	0.4	0.5	0.6	150.0

Source: Own determination, based on NIS Tempo on line, 2017 [13].

The surplus of production makes the object of export, under the condition to meet the EU quality standards, like in case of meat. Romanian honey is a preferred Romanian product on the EU market as long as it has a high quality and also export is advantaged by the low consumption on the domestic market [32].

The value of animal production at producer price was influenced both by the quantitative

animal production, but also by the price at the farm gate. In Table 8 it is presented the evolution of the value of animal production at producer price. It may be easily notice that the value of bovine production increased by 4.01 %, of pig production by 15.56 %, by 65.86 % in case of sheep and goats, by 61.93 % in case of poultry, by 3.08 % in case of milk and by 34.95 % in case of eggs (Table 8).

Table 8. The value of animal production at producer price, Romania, 2007-2016 (Lei Million)

	2007	2011	2016	2016/2007 %
Bovine	1,414.75	1,079.76	1,471.6	104.01
Pigs	3,079.2	3,531.5	3,558.5	115.56
Sheep and Goats	517.9	892.2	859	165.86
Poultry	1,328.4	1,631.3	2,151.1	161.93
Milk	4,340.8	5,299.3	4,474.51	103.08
Eggs	2,230.7	2,759.5	3,010.5	134.95

Source: Own determination, based on NIS Tempo on line, 2017 [13].

The price of animal products. In the analyzed period, the price of animal products increased, positively influencing the value of animal production.

The evolution of producer's price for products of animal origin is presented Table 9.

Table 9. Producer's price for animal products, Romania, 2007-2016 (Lei/ton)

	2007	2011	2016	2016/2007 %
Bovine	3,805	6,500	6,910	181.60
Pigs	4,720	6,860	6,650	140.88
Sheep and Goats	3,520	7,070	7,380	209.65
Poultry	3,330	3,550	3,990	119.81
Milk	1,257	2,047	1,992	158.47
Eggs	7,200	9,200	10,200	141.66

Source: Own determination, based on NIS Tempo on line, 2017 [13].

One may see that producer's price increased by +81.6 % in case of bovines, from Lei 3,805/ton in 2007 to Lei 6,910/ton in 2016; by +40.88 % in case of pigs from Lei 4,720/ton in 2007 to

Lei 6,650/ton in 2016; by + 9.65 % in case of sheep and goats from Lei 3,520/ton in 2007 to Lei 7,380/ton in 2016; by + 19.81 % in case of poultry from Lei 3,330/ton in 2007 to Lei

3,990/ton in 2016; by +58.47 % in case of milk from Lei 1,257/ton in 2007 to Lei 1,992/ton in 2016 and by +41.66 % in case of eggs from Lei 7,200/ton in 2007 to Lei 10,200/ton in 2016 (Table 9).

The basic price for animal products, including producer's price plus subsidies minus taxes per product, is presented in Table 10.

The basic price increased by + 53.19 % in case of bovines, by +33.26 % in case of pigs, by +

65.43 % in case of sheep and goats, and by 51.94 % in case of milk.

The differences between the basic price and producer's price are determined by the allotted subsidies and taxes per product.

In case of poultry and eggs, there are no deviations between the basic price and producer price in the years 2011 and 2016, except the year 2007 for poultry (Table 10).

Table 10. Basic price for animal products in Romania in the period 2007-2016 (Lei/ton)

	2007	2011	2016	2016/2007 %
Bovine	4,490	6,500	6,910	153.89
Pigs	4,990	6,860	6,650	133.26
Sheep and Goats	4,461	7,070	7,380	165.43
Poultry	3,862*	3,550*	3,990*	119.81*
Milk	1,311	2,047	1,992	151.94
Eggs	7,200*	9,200*	10,200*	141.66*

Source: Own determination, based on NIS Tempo on line, 2017 [13].

*No differences between basic price compared to consumer's price presented in Table 9.

The average acquisition prices for animal products are presented in Table 11. One may notice that pork price increased by 50.4 % per kg live weight, poultry meat price increased by 11.5 % per kg live weight, fresh cow and sheep

milk price increased by 53.3 %, egg price increased by 29.1 % per piece, and honey price increased 3.32 times in the last year of analysis compared to the year 2007, considered as term of reference (Table 11).

Table 11. Average acquisition prices for animal products, Romania, 2007-2016

	MU	2007	2011	2016	2016/2007 %
Pork	Lei/kg live weight	3.55	5.21	5.34	150.4
Chicken meat	Lei/kg live weight	3.72	4.21	4.15	111.5
Fresh cow milk	Lei/liter	0.75	1.03	1.15	153.3
Fresh sheep milk	Lei/liter	0.75	1.03	1.15	153.3
Eggs	Lei/piece	0.24	0.30	0.31	129.10
Honey	Lei/kg	4.55	9.99	15.11	332.10

Source: Own determination, based on NIS Tempo on line, 2017 [13].

The average price for animal products marketed in the agro-food markets is presented in Table 12. One may notice that fresh cow milk price increased by + 53.52 %, hen egg price by +54.76 % and honey price by +4.38 %. The price level in the agro-food market is more than double compared to the average acquisition price (Table 12).

The price for animal products depend very much on the demand/offer ratio, but also by other factors, for instance the opportunities for export as in case of honey, the only animal product which has a positive trade balance as exports are much higher than imports [48].

Table 12. Average price for animal products sold in the agro-food market, Romania, 2007-2016

	MU	2007	2011	2016	2016/2007 %
Fresh cow milk	Lei/Liter	1.7	2.56	2.61	153.52
Hen egg	Lei/piece	0.42	0.56	0.65	154.76
Honey	Lei/kg	12.76	20.17	26.08	204.38

Source: Own determination, based on NIS Tempo on line, 2017 [13].

CONCLUSIONS

The analysis allowed to draw the conclusion that animal production has been continuously developing in the last decade in Romania. But the rhythm of growth was lower compared to the one of vegetal production, which resulted in a smaller share of only 33 % of animal production value in the value of agricultural production.

A more detailed analysis has put into evidence the decline of the number of animals in case of bovines, pigs and poultry, and an increase of sheep and goats and bee families.

The reduction of the livestock had negative consequences on meat and milk production which have registered declines in beef, pork and milk production. But, at the same time, in the last decade, it was registered a stagnation of egg production and an important growth in mutton and goat meat as well as in honey production.

Even though domestic production could cover consumer needs in some cases, consumption of products of animal origin declined, mainly regarding meat, milk and eggs, and just a slight increase

was noticed in honey consumption.

The small price at farm gate and even the basic prices created problems to animal breeders who could not cover some time production cost.

More than this, to balance demand/offer ration on the internal market and taking into account that Romania operates in the open European market, imports of products of animal origin have come from other EU countries, where animal production is better subsidized, affecting the Romanian producers.

The achievements in animal production are below its potential. The contribution of animal production must increase for assuring the stability and availability in food supply and security of the population.

Animal production must become "an engine" in agricultural production, only paying attention to farm size, animal feeding, reproduction and breeding, applying modern technologies, improving technical endowment, assuring a high training level to labor force.

The Programme Horizon 2014-2020 is destined to help the farmers to modernize their farms and to buy high breeding value animals. Farmers must join their fixed and working capital to work better the land and raise animals, to purchase farm inputs at lower prices and sell animal products at higher prices. Animal production must contribute much more to agro-food trade balance and to cover better the needs of the internal and European market.

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