ANALYSIS OF THE CATTLE SECTOR IN ROMANIA

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Abstract. *Raising cattle is an activity of paramount importance. The rich natural potential for agriculture in Romania contrasts with the low level of economic performance in the animal breeding sector. Thus, raising cattle has become an increasingly unprofitable occupation in Romania, especially among the owners of small farms . Romania had merely a total of 1977232 heads in 2018 (-63,25%), compared to 5380780 heads in 1990. This paper presents the cattle market in Romania between 1990-2018. In order to carry out this research, the number of cattle were analyzed. The data were collected from the National Institute of Statistics and the Ministry of Agriculture and Rural Development. In order to better highlight the dynamics of the sector, numerous specialized journals, books, studies and reports were consulted. At the same time, the analysis of the distribution of cattle according to the development regions is presented.*
In the European Union there are many small animal farms, but in Romania there are the smallest farms in the European Union]. Our country must take advantage of every opportunity to turn cattle farms into producer associations in order to be competitive on the Union market and aim, first and foremost, to diversify production and to make farms profitable. Increasing the competitiveness of this sector through innovation is essential]. Also, a better objective description of the goods and services derived from animal husbandry is necessary. The period analyzed was divided into two intervals: 1990-2006 pre-accession to the EU and 2007-2018 - post-accession to the EU. As a result of the analysis made, it concluded that there are no statistically significant differences between the two analyzed periods. Also, it was observed that after a sharp decrease in the number of cattle between 1990 and 2010, there was a stabilization of this indicator as a result of the subsidies received per animal and the access of European funds by farmers.

Keywords*: cattle, livestock, Romania, statistical analysis, development regions*

INTRODUCTION

The importance of cattle raising derives from the multitude of products they provide: milk, meat, hides, manure (natural fertilizer) (ACATINCĂI STELIAN, 2004). The cattle breeding sector has a crucial importance from several points of view - socio-economic, sanitary, biological and ecological (SANDU MARIANA, 2015). Milk is the most important product, due to its nutritional value, complex content and digestive properties. More than 1000 products can be obtained through milk processing. Beef is appreciated for its nutritional and dietary value (ATF, 2017). The cattle breeding activity creates jobs.

Livestock farming is a traditional skill for the rural population (especially in the mountain areas). It is a sustainable activity, with excellent prospects, because it uses fodder from the respective area, consuming little energy. The products resulting from cattle breeding represent the staple food for the majority of the rural population. Due to the economic potential, in recent years more and more cattle farms have been developed, which aim to produce and sell food products of animal origin. Many such products are exported.

In the European Union there are the highest standards of animal welfare. In the EU, priority is given to observing standards for environmental protection, animal health and population (BUCKWELL, A., 2018). Worldwide, cattle provide 96% of the milk requirement, 33% of the meat, 90% of the production of leather and about 70% of the manure used as fertilizer. In the more developed countries of Europe, the production of animal origin goods amounts to 65-75% of the total agricultural production.

MATERIAL AND METHODS

Two methods were used in the study: specialized literature analysis and statistical analysis. The statistical analysis included the calculation of the following indicators: arithmetic mean, mean squared deviation, standard deviation, coefficient of variation, rate. Student's t test for comparing means was used to test whether these value differences between means are statistically significant.

RESULTS AND DISCUSSIONS

The change of the political regime affected the zootechnical sector, the number of cattle being considerably reduced to 3435 thousand heads in 1997. Later, the native breeds were replaced with imported breeds, in order to breed cattle with a much better yield. If in Romania there were 5380.8 thousand heads of cattle in 1990, by 2006 this number decreased by 2447.2 thousand heads. Thus, in 2006 Romania still owned only 54.52% from the cattle population of 1990. Also, the herds of cows and buffaloes followed a regressive trend, from 1791.6 thousands in 1993, to 1668.7 thousands in 2006. The decrease in the number of cows and buffaloes was 6.86% during this period. The trend is also decreasing in the case of heifers. From 187.3 thousand heads in 1993, Romania still had 141.2 thousand heads in 2006, that is only 75.39% (ANGHELACHE CONSTANTIN, 2017).

The sector of cattle raising suffered many losses after the change of political regime in 1990. During the first three years there were a series of actions with a strong impact on the breeding sector. The farmers' production cooperatives were dismantled and as a result. the entire state sector was affected.This led to a decrease in cattle numbers (by about 35%), but also in dairy cows (by 8%). The situation was also influenced by the passing of some laws, like the removal of the restrictions on the slaughter of animals. As a result, many specimens were sacrificed, especially those who were sick, old or who did not have significant productive potential. A positive effect was the increase in the productivity of the sector (+ 33%).

Another aspect that accounts for the decrease in the number of cattle is the attempt of the small producers to downsize in order to meet their own needs and to be in line with the economic targets. As a result, the decline in the number of herds occurred at a slower rate in 1993-98, compared to the first three years after 1990. There was a stable period, and productivity improved steadily (SANDU MARIANA (2015).

Table 1

Statistical analysis of the evolution of cattle numbers in Romania in the period 1990-2006

	Cattle	Cows, buffs and heifers	Heifers	Cow and buffalo
Mean	3347,38	1863,27	151,59	1682,93
Standard Error	162,29	36,52	5,90	19,10
Median	3142,70	1809,80	143,55	1657,15
Standard Deviation	669,15	141,46	22,08	71,46
Coefficient of variation	19,99	27,79	50,31	47,94
Annual growth rate	-3,72	-0,68	-2,15	-0,55
Minimum	2799,80	1746,30	125,40	1591,50
Maximum	5380,80	2265,80	187,30	1798,40

Source: Own calculation based on the data provided by National Institute of Statistics [17]

In the analyzed period (1990-2006), Romania had the smallest number of cattle heads, 2799.8 thousands, in 2001. In 1990, Romania had the highest number of cattle, 5380.8 thousand heads. The average of this period was 3347.38 thousand heads. The rate was negative (-3.72) in cattle, the numbers diminishing year by year, until 2006. In 1991 in Romania there were the most numerous heads of cows, buffaloes and heifers (2265.8 thousand heads). The average number of the period 1990-2006 was 1863,27 thousand heads. The rate was negative (-0.68), the number of cattle

decreasing during this period. As to the number of heifers, our country had the highest rate of decrease of the herds (-2.15), while for cows and buffaloes the rate was -0.55.

The coefficient of variation has the role of showing the degree of homogeneity of the cattle population in the period analyzed. Thus, in the case of the cattle, the coefficient of variation is less than 20% (19.99%), which shows that the series is homogeneous, so the average established for the analyzed period is representative. For cows, buffaloes and heifers, the series is heterogeneous, so the average period for these herds is not representative for the whole period.

In 2007, in our country there were 2,819 thousand heads of cattle, which decreased until 2018, when there were 1977.2 thousand heads. During 12 years, the number of cattle was reduced by 841,8 thousand heads of cattle, that is 29.86%. In total, cows, buffaloes and heifers accounted for 1732.2 thousand heads in 2007. In 2018, of this total, only 73.89% remained, respectively, less by 452.2 thousand heads. By categories, the situation looked like this: 14000 heifers disappeared, i.e. 10.29% and 438.2 thousand cows and buffaloes, that is 27.45%.

Table 2

Statistical analysis of the evolution of cattle numbers in Romania in the period 2007-2018

	Cattle	Cows, buffs and heifers	Heifers	Cow and buffalo
Mean	2186,32	1379,78	117,49	1262,29
Standard Error	87,08	47,78	3,69	45,05
Median	2036,05	1303,20	120,20	1189,50
Standard Deviation	301,67	165,51	12,79	156,07
Coefficient of variation	13,80	12,00	10,89	12,36
Annual growth rate	-3,23	-2,85	-1,21	-3,00
Minimum	1977,20	1265,00	95,50	1158,00
Maximum	2819,00	1732,20	136,00	1596,20

Source: Own calculation based on the data provided by National Institute of Statistics [17]

The largest number of cattle existed in Romania in 2007 (2819 thousand heads). The year 2018 is at the other extreme, when only 1977.2 thousand heads of cattle still existed in our country. The average of this 12-year period was 2186.32 thousand heads of cattle. The rate was negative (-3.23), their number decreasing from year to year. The coefficient of variation is below the limit of 20% (13.8%), so the series is considered to be homogeneous.The smallest number of cows, buffaloes and heifers, in total, existed in 2012, with only 1265 thousand heads. 2007 was the best year, with the maximum number of cows, buffaloes and heifers (1732.2 thousands). The average of the 12 years was 1,379.78 thousand heads. The rate was negative (-2.85), their number decreasing. The coefficient of variation is 12%, the series being homogeneous. The lowest number of heifers was registered in 2011, with 95.5 thousand heads. 2007 was also the year with the highest number of heifers in the analyzed period (136 thousand heads). The rate was negative (-1.21), but the decrease in the number of heifers was not so massive. In the case of cows and buffaloes, the rate was -3, so they experienced a much more dramatic reduction in the 12 years.

Table 3

Statistical test t: Statistical analysis of the comparison of the number of cattle in the period 1990-2006 with 2007-2018

	Calculated value of test t / probability associated with the test	The theoretical value of the test t	Conclusions	
Cattle	tc=-3,6515; p=0,000745061	1,720742903	Hypothesis H0 is accepted	There is no statistically significant difference between the two periods.
Cows, buffs and heifers	tc=-8,03952; p=2,71953E-08	1,717144374	Hypothesis H0 is accepted	
Heifers	tc=-4,89903; p=3,80511E-05	1,720742903	Hypothesis H0 is accepted	
Cow and buffalo	tc=-8,59581; p=1,75821E-07	1,753050356	Hypothesis H0 is accepted	

Source: Own calculation based on the data provided by National Institute of Statistics [17]

Is considered:

H_0 - there is no significant difference between the two analyzed periods P1 (1990-2006) and P2 (2007-2018) = $t_c < t_{(\alpha;n-k)}$; $p \geq \alpha$.

H_1 - there is a significant difference between the two periods P1 (1990-2006) and P2 (2007-2018) = $t_c \geq t_{(\alpha;n-k)}$; $p < \alpha$

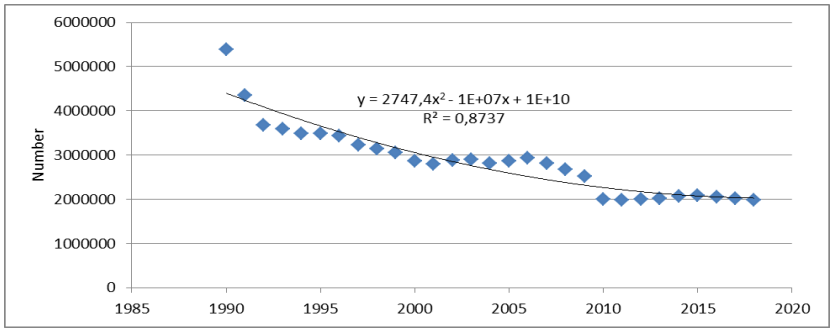

Figure 1. Dynamics and regression of the number of cattle in Romania from 1990-2018, *Source: Own design based on the data provided by National Institute of Statistics, Tempo-online Data Base, 2019, [17]*

Comparative presentation of the number of cattle per 100 ha according to the development regions in 1990 and 2006

The North-East region has the best situation in terms of the number of bovine animals per 100 ha, during the entire period 1990-2006. If in 1990 there were 52.8 cattle, in 2006 there were only 34.8. The Bucharest-Ilfov region had 48.8 cattle for every 48 ha in 1990 and 22.9 cattle in 1996. After 1997, the North-West region occupied the second place . The North-West and Central regions each had 42.6 and 40.2 cattle per 100 ha respectively, in 1990, reaching 26.2 and 23.7 cattle respectively, in 2006. The rest of the regions are below the national average for each year.

The worst results were registered in the West region, where there were only 26.7 cattle per 100 ha in 1990. Their number decreased to 13.7 cattle in 2006.

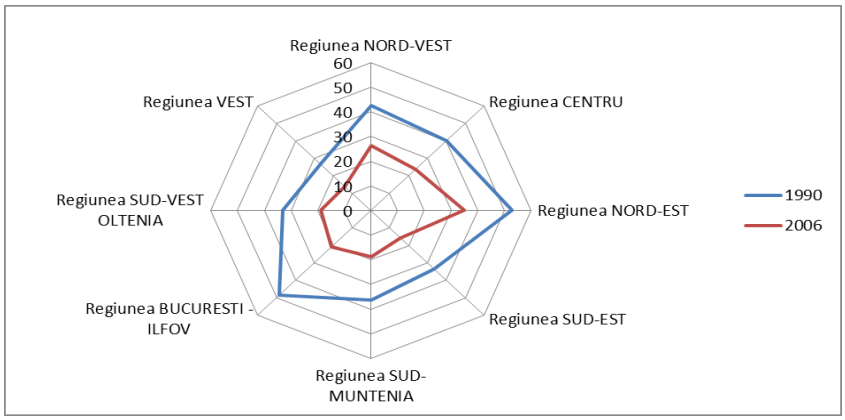

Figure 2. Comparative presentation of the number of cattle per 100 ha according to the development regions in 1990 and 2006, *Source: Own design based on the data provided by National Institute of Statistics, Tempo-online Data Base, 2019, [17]*

The national average of the number of cattle per 100 ha was 38 in 1990 and 21.6 in 2006. In conclusion, 16.4 cattle per 100 ha were lost, i.e., 43%. The region most populated with cattle, the Northeast, lost 18 cattle per 100 ha, that is 33%. Also , the South-East region lost 18 cattle per 100 ha, but the loss was more pronounced here, by 54%. However, the Bucharest-Ilfov region was by far the most depopulated region: 27.8 cattle disappeared from every 100 ha, that is 57%. The Center and North-West regions lost about the same number of cattle per 100 ha (16.4 and 16.5, respectively). The Western region lost 49% of the number of cattle per 100 ha, from 1990 to 2006.

For the North-East region, the highest number of cattle per 100 ha was in 1990 (52.8) and the lowest in 2001 (30.7). The average number of cattle was 35.35 during this period. In the rest of the regions, the average number of cattle per 100 ha did not exceed 30. Thus, the national average for 1990-2006 was 23.71 cattle per 100 ha. Above this average were the North-West regions (28.87 cattle), Bucharest-Ilfov (26.52 cattle) and Center (24.76 cattle). The regions of South-Muntenia and South-West Oltenia had averages close to those of this period, of 21.6 cattle per 100 ha, respectively 21.49. The South-East and West regions registered the lowest average number of cattle per 100 ha, 17.49 cattle and 15.92 respectively.

The annual rate of growth was negative. The number of cattle decreased from year to year in all regions. The highest rate of decline in the number of cattle was recorded in the Bucharest-Ilfov region (-5,3). The South-East region followed, with a rate of (-4.68) and the West region (-4.08). The North-East region had the lowest rate of decline in cattle (-2.57).The coefficient of variation calculated for the number of bovine animals per 100 ha, in the period 1990-2006, looks like this: in the North-West, North-East and South-West Oltenia regions the coefficient is below 20%, which shows that the series is homogeneous, so the averages calculated for each region are representative. Only in the Bucharest-Ilfov region the series is heterogeneous. In the others, according to the coefficient of variation, the series are relatively heterogeneous.

Table 4

Statistical analysis of the evolution of the bovine herds per 100 ha according to the development regions during 1990-2006

	Mean	Standard Error	Median	Standard Deviation	Coefficient of variation	Annual growth rate	Minimum	Maximum
North-West	28,87	1,29	27,9	5,33	18,46	-2,99	23,6	42,6
Center	24,76	1,28	23,7	5,29	21,38	-3,25	19,2	40,2
North-East	35,35	1,27	33,5	5,25	14,86	-2,57	30,7	52,8
South-East	17,49	1,17	15,5	4,83	27,64	-4,68	14,2	33,6
South	21,60	1,15	20,3	4,75	21,97	-4,04	17,4	36,2
Bucharest-Ilfov	26,52	1,95	25,7	8,05	30,34	-5,13	18,5	48,8
South-West	21,49	1,00	21,3	4,14	19,28	-3,47	17,4	33,1
West	15,92	1,02	14,5	4,22	26,54	-4,08	11,8	26,7

Source: Own calculation based on the data provided by National Institute of Statistics [17]

The North-East region is the highest rated in terms of the number of bovine animals per 100 ha, for the entire period 2007-2018. If in 2007 there were 35.1 cattle, in 2018 there were only 26.2. The North-West and Center regions had 23.8 and 22.6 cattle per 100 ha respectively, reaching 21 and 19.9 cattle respectively in 2018. The rest of the regions were below the national average for each year, regarding the number of cattle per 100 ha. The Bucharest-Ilfov region had 21.1 cattle per 100 ha in 2007 and 7.6 cattle in 2018. Also, there was the same number of cattle per 100 ha in 2007 in the South-West Oltenia region too, but here the decrease was smaller. In 2018 there were 11 cattle per 100 ha. The worst results from this point of view were recorded in the West region, where only 13.7 cattle per 100 ha existed in 2007. Their number dropped to 9.3 cattle in 2018.

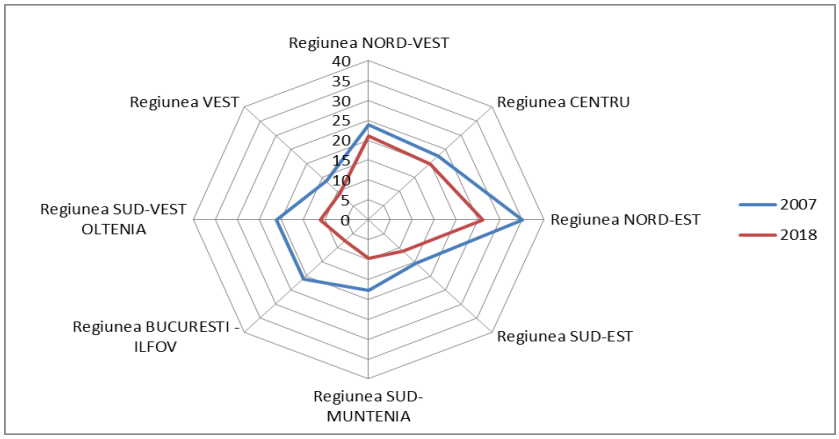

Figure 3. Comparative presentation of the number of cattle per100 ha depending on the development regions in 2007 and 2018, *Source: Own design based on the data provided by National Institute of Statistics, Tempo-online Data Base, 2019, [17]*

In 2018, at national level, there remained only 71.03% cattle per 100 ha, from the number of cattle existing in 2007. The most affected region was Bucharest-Ilfov, where the largest decrease in the number of cattle was registered (13.5). Thus, in 2018, only 36.02% of the number of cattle that existed in 2007 remained. In the South-West Oltenia region, the number of cattle decreased by 10.1 per 100 ha. In the respective area in 2018, just over half (52.15%) of the cattle existing in 2007 were registered in 2018. In the North-East region, where there were the largest numbers of cattle per 100 ha, about 74.64% of the 2007 herds remained in 2018. There was a decrease of 8.9 cattle. The South-Muntenia region lost the same number of cattle per 100 ha, (8.1), but the percentage decrease was more pronounced. Only 54.24% of the number of cattle that existed in 2007 were registered in 2018. The North-West and Center regions lost the fewest cattle. Here there were about 88.24% in 2018, respectively 88.05% of the number of cattle registered in 2007.

Table 5

Statistical analysis of the evolution of the bovine herd per100 ha according to the development regions during 2007-2018

	Mean	Standard Error	Median	Standard Deviation	Coefficient of variation	Annual growth rate	Minimum	Maximum
North-West	20,52	0,49	20,45	1,70	8,28	-1,83	18,5	23,8
Center	19,13	0,54	18,85	1,87	9,76	-1,45	17,1	22,6
North-East	28,84	1,06	27,25	3,66	12,70	-2,34	25,4	35,5
South-East	11,66	0,49	10,95	1,71	14,65	-2,80	10,3	15,4
South	11,77	0,81	10,4	2,80	23,83	-5,40	9,6	17,7
Bucharest-Ilfov	11,63	1,44	9,85	5,00	42,97	-8,12	7,1	21,1
South-West	13,67	0,99	12,15	3,41	24,97	-4,37	11	21,1
West	10,16	0,54	9,3	1,86	18,34	-3,18	8,6	13,7

Source: Own calculation based on the data provided by National Institute of Statistics [17]

16.42 cattle was the average of the period 2007-2018, for every 100 ha, at national level. Above this national average there were only three development regions: the North-East region, with an average of 28.84 cattle, the North-West region with an average of 20.52 cattle and the Center region , with an average of 19.13 cattle. The rest of the regions were well below this national average of the number of cattle returning to every 100 ha. The lowest average of only 10.16 cattle was calculated for the West region.

The decrease in the number of cattle was registered year by year. The Bucharest-Ilfov region had the fastest rate of decline in the number of cattle amounting to 100 ha (-8,12). The South Muntenia region lost (at a rate of -5.40) a considerable number of cattle, between 2007-2018.The South-West region Oltenia and the West region had deceleration rates of (-4.37) and (-3.18). In the rest of the regions there were decreases in the number of cattle per 100 ha, but the rate was below the one calculated at national level (-2.89). The lowest rate of decline in the number of cattle was in the Center region (-1.45).The North-East, North-West, South-East, Center and West regions had a coefficient of variation below 20%. This shows that the series are homogeneous, and the averages calculated for this period are representative of these regions.

The average number of bovine animals per 100 ha decreased for almost all the development regions of the country in the period 2007-2018, compared with the previous interval studied. There is only one exception, in the Bucharest-Ilfov development region, where the average number of cattle increased by 0.74 between 2007 and 2018. The North-East region is the only one with averages for both periods exceeding 20 cattle per 100 ha: 23.7 (1990-2006) and 21.1 (2007-2018). The greatest difference of 2.61 cattle between the averages was recorded here.

The next are the North-West and Central regions, with averages exceeding the national averages calculated for the number of cattle per 100 ha. In the North-West region, there was a greater difference of 1.53 cattle between the averages of the two studied periods, 1990-2006 (average - 16.95 cattle) and 2007-2018 (average - 15.43 cattle), In the Center region the difference between the averages was 1.29 cattle per 100 ha. The rest of the regions had average cattle numbers below the national average. The differences between the averages of the two periods studied were between 0.31 cattle and 0.58 cattle per 100 ha.

The rate with which the number of bovine animals per 100 ha decreased was faster during 1990-2006 (-3.47), compared to 2007-2018 (-2.89), at national level.

Analyzing the development regions, it appears that in Bucharest-Ilfov there was the largest reduction in the number of cattle, in both periods analyzed. Between 2007-2018 the rate was faster (-8.12). The South-East region had an annual rate of (-4.68) in the period 1990-2006, but the decrease in the number of cattle diminished in the following period, when the rate was (-2.8). The South-Muntenia region saw a decrease in the number of cattle after 2007, which was quite sharp, with a rate of (-5,4). In the previous period the rate had been (-4.04). In the West region, the rate of decrease in the number of bovine animals per 100 ha was higher between 1990-2006 (-4.08), but lower in the following interval (-3.18). Also, the South-West Oltenia region suffered significant losses in the number of cattle. Between 2007-2018, the losses were higher, the rate being (-4.37), compared to the previous one, (-3.47). In the North-West, Central and North-East regions, the rates of decrease in the number of cattle were higher during the period 1990-2006. Moreover, the lowest rate of (-1.45) was recorded in the Central region, in the period 2007-2018

Table 6

Statistical test t: Statistical analysis of the comparison of the bovine herd that returns to 100 ha during the periods 1990-2006 with 2007-2018 according to the development regions

	Calculated value of test t / probability associated with the test	The theoretical value of the test t	Conclusions
North-West	tc=-6,04287; p=3,3E-06	1,724718	Hypothesis H0 is accepted
Center	tc=-4,04371; p=0,000293	1,720743	Hypothesis H0 is accepted
North-East	tc=-3,9295; p=0,000267	1,703288	Hypothesis H0 is accepted
South-East	tc=-4,58478; p=8,03E-05	1,720743	Hypothesis H0 is accepted
South	tc=-6,98776; p=1,01E-07	1,705618	Hypothesis H0 is accepted
Bucharest-Ilfov	tc=-6,14004; p=7,32E-07	1,703288	Hypothesis H0 is accepted
South-West	tc=-5,55784; p=3,88E-06	1,705618	Hypothesis H0 is accepted
West	tc=-4,97654; p=2,47E-05	1,713872	Hypothesis H0 is accepted

Source: Own calculation based on the data provided by National Institute of Statistics [17]

Analyzing the data it is found that, for all the eight series of data related to the development regions, the calculated values of the statistical test t are lower in relation to the theoretical values and the probability is small with respect to the significance threshold and in conclusion we can say that there is no difference significant, from a statistical point of view, between the two analyzed periods, respectively 1990-2006 and 2007-2018.

Analysis of the influence of the development regions in Romania on the number of cattle that amounts to 100 hectares

The following table presents the results obtained after verifying the influence of the regions on the number of cattle. The F test was used for this verification.

I considered H_0 - the regions are not a factor influencing the number of cattle ($F_c<F_{(\alpha;\ k-1;\ n-k)}$; $Fc\geq\alpha$)

H_1 – regions are a factor influencing the number of cattle ($F_c\geq F_{(\alpha;\ k-1;\ n-k)}$; $F_c<\alpha$)

Table 6

Results Anova single factor

SUMMARY				
Groups	Count	Sum	Average	Variance
North-West	29	737	25,41379	34,89623
Center	29	650,6	22,43448	25,35377
North-East	29	947	32,65517	31,6647
South-East	29	437,2	15,07586	23,03118
South	29	508,4	17,53103	40,25365
Bucharest-Ilfov	29	590,4	20,35862	102,5632
South-West	29	529,3	18,25172	29,75544
West	29	392,5	13,53448	19,89734

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	7750,774	7	1107,253	28,81451	3,855E-28	2,050622
Within Groups	8607,635	224	38,42694			
Total	16358,41	231				

Source: Own calculation based on the data provided by National Institute of Statistics, [17]

Following the calculations it was found that $F_c = 28{,}81>F_{(0{,}05;224)} = 2{,}05$, $p = 0< \alpha = 0{,}05$, result which rejects the H_0 hypothesis and we can conclude (accepting the H_1 hypothesis) that the development regions in Romania influence the number of cattle returning to 100 ha.

CONCLUSIONS

The number of bovine animals per 100 ha decreased from 38 (1990) to 15.2 (2018). The difference is 22.8 cattle. In other words, between these years, 60% of the number of cattle was lost, for every100 ha. The Bucharest-Ilfov region lost the largest number of cattle, from 1990 (48.8) to 2018 (7.6). Only 15.57% of their number still remained in 2018. The South-Muntenia region holds second place from 1990 up to the present, regarding the decrease in the number of bovine animals. 26.6 cattle per 100 ha disappeared from 1990 to 2018. Only 26.52% of the 1990 herd still exists in 2018. The South-West Oltenia and South-East regions remained with 33.23% and respectively 33.04% of the number of cattle from 1990 until 2018. The Western region lost 17.4 cattle per 100 ha, remaining with 34.83% of the number in 1990. The North-West, Central and North-East regions suffered the smallest losses. In 2018, they had just over 49% of the number of cattle held in 1990.

Romania is one of the largest exporters of cattle. Thus, in 2017, exports amounted to 218.7 thousand heads. Their value was EUR 207.9 millions. However, the herds of cattle have

been declining from one year to another since 1990. Although Romanian farmers received non-reimbursable financial support for development with EU accession, the number of cattle continued to decline. Under these conditions the big producers have developed, but the number of small farmers has reduced considerably. This is how a large number of cattle disappeared. Among the causes of this situation may be the aging of the population, the extremely low price of milk, the lack of pastures. Also, compared to other countries of the European Union, which are much more developed, the consumption of meat, milk, eggs, or fish by the Romanians is decreasing.

Limiting the export of cattle and encouraging the export of meat products can have a major beneficial effect on the Romanian economy, by contributing to the creation of jobs. Also, the operations that generate the added tax can bring revenues to the national budget. Romania has very favorable pedoclimatic conditions for the growth of bulls. Consideration should be given to the high demand for dairy products, and to creating opportunities for marketing such products both locally and abroad. At this moment, it is essential to stop the process of diminishing the number of herds, meant to produce a revitalization of the rural areas.

Competition is high in this area, so our country needs to meet the quality standards imposed on the sector in developed countries. In order to achieve this goal, it is necessary to implement technological solutions for animal husbandry, to observe animal welfare rules, and to make investments in this sector. Romania can rise to global standards, using the funds received from the EU. The young farmers must be supported, they must act in the direction of modernizing the current farms. Romania has many small semi-subsistence or subsistence farms. They should organize themselves in larger associations in order to have easier access to the market and to become competitive.

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