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# Trend of Increase or Desrease in Sheep Breeding in Separate Regions of Republic of Macedonia

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#### Abstract

The national agricultural policy in R. Macedonia to encourage the development of agriculture is conducted to obtain more competitiveness in the market by subsidizing agriculture, including sheep breeding. Analysis of data from the State Statistical Office of R. Macedonia has shown that the subsidizing agriculture has increased in the period from 2005 to 2013, which contributes to the increase in exports. The subject of this research paper is to observe the number of sheep in the individual and business sectors in R. Macedonia by regions: Vardar, Eastern, Southwest, Southeast, Pelagonia, Polog, Northeast and Skopje region. The aim is to see whether this branch of husbandry registered an upward or downward trend in the period from 2009 to 2012. From the analysis it can be concluded that the decreasing trend is present, but the latest data for the period of 2013 show that the state of sheep breeding is much better.

Key words: agricultural policy, subvention, development program

### Introduction

Sheep breeding in R. Macedonia has a long tradition and this has been supported by favorable natural conditions and ecological clean areas of this territory. More than 50% of the agricultural area is high mountain

pastures along with 55.000 acres of meadows, which are a great resource for the development of sheep breeding. However, in the past 20 years there has been a reduction in the number of sheep from 2 million to just 800,000 heads (Husbandry in Macedonia, 2009). This trend is due to the reduction of agricultural land from 1.3 million hectares to 1.1 million hectares, as well as the reduction of the number of residents in rural areas with the migration from village to city. The number of farmers in the country has dropped significantly, especially concerning the fact that only 1.2% of farmers are young farmers.

The Government of the Republic of Macedonia implements agricultural policies that contribute to growth and greater competitiveness of Macedonian sheep breeding through subsidizing about 1,316 farmers with the amount of 3.457.377 euros (Subsidies for sheep: Paid 3.457.377 euros, 2014). The financial support for sheep breeding equals 16 euro per sheep and 20 euro for every saved female lamb (Started payment of subsidies for lambs, 2008). However, despite this government policy the downward trend in the number of sheep in the territory of R. Macedonia continues.

To increase the number of sheep as one of the most important industries, the competent authorities endeavour to develop a strategy to reduce the negative trend in sheep breeding by increasing the resources for subsidizing and create a profile of contemporary young farmer.

### Material and Methods

In this paper the subject of research is the number of sheep in the individual and business sector per regions on the territory of the Republic of Macedonia in the period from 2009 to 2012. The data is taken from the State Statistical Office of the Republic of Macedonia.

Using the method of analysis of documentation and comparative analysis the research is based on data taken from the above-mentioned State Statistical Office of the Republic of Macedonia for the number of sheep in the period from 2009 to 2012 in the individual and business sector in the regions: Vardar, Eastern, Southwest, Southeast, Pelagonia, Polog, Northeast and Skopje region.

According to these data the upwards and downwards trend of the number of sheep, lambs and female heads for breeding which are grown in different regions throughout the R. Macedonia is perceived. (Only categories which are subsidized are taken).

## Results and Discussion

The obtained data is divided into three groups represented by tables and graphs. The first set of data relates only to the total number of sheep in the territory of R. Macedonia. The second group presents data on the total number of sheep up to 1 year, while in the third set of data includes female cattle for breeding.

Total number of sheep in R. Macedonia and by regions

Data on the total number of sheep by regions are presented in Table 1 and Figure 1.

Tab. 1. Total number of sheep in R. Macedonia and by regions *Ukupan broj ovaca u R. Makedoniji i po regionima* 

Total number of sheep in R. Macedonia and by regions						
Ukupan broj ovaca u R. Makedoniji i po regionima						
	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>		
R. Macedonia	755357	778404	766631	732338		
Vardar region	68688	127304	111602	99019		
Eastern region	116072	157580	136892	117451		
Southwest region	107358	82270	102422	118974		
Southeast region	89438	72478	58746	61233		
Pelagonia region	228984	152649	171650	143109		
Polog region	66648	68292	62870	75342		
Northeast region	32839	53307	53855	35523		
Skopje region	45330	65524	68594	81687		

Source: Republic of Macedonia, State statistical office, husbandry *Izvor: Republika Makedonija, Državni statistički zavod, stočarstvo* 

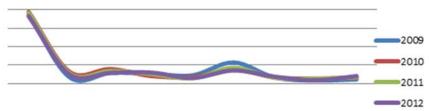


Fig. 1. Total number of sheep in R. Macedonia and by regions *Ukupan broj ovaca u R. Makedoniji i po regionima* 

Source: Republic of Macedonia, State statistical office, husbandry *Izvor: Republika Makedonija, Državni statistički zavod, stočarstvo* 

From the data presented in Table 1 and Figure 1 it can be seen an increasing trend in the number of sheep in the period from 2009 to 2010, while by 2012 a gradually decreasing trend appears of the number of sheep in the territory of R. Macedonia.

By regions it can be noted that in the Vardar and the East region, the number of sheep is increasing in the period from 2009 to 2010, while by 2012 this trend has decreased despite an increase in subsidies to this sector by the Government.

In the Southwest and Southeast region, also the downward trend in the number of sheep is evident, but unlike the previous regions, in 2012 is noted an increasing trend in number of sheep.

In the Pelagonia region it can be seen a variation of the situation in terms of the number of sheep. Thus, a downward trend was observed in the period from 2009 to 2010, and then entered a period of gradual increase (from 2010 to 2011), that led to a decreasing trend in the number of sheep.

In the Polog region unlike the Pelagonia region the situation is reversed. Namely, in this region there is an increase in the period from 2009 to 2011, decrease in the period from 2010 to 2011, while in the period from 2011 to 2012 appears a trend of increasing number of sheep.

In the Northeast region it can be seen an increasing trend in the number of sheep in the period from 2009 to 2010, which continued until 2011, while in the period from 2011 to 2012 appears a trend of reducing number of sheep.

It can be noted that the trend of increasing or decreasing in the number of sheep varies from region to region. Constant increasing trend can be observed only in the Skopje region in the period from 2009 to 2012.

Total number of lambs in R. Macedonia and by regions

In Table 2 and Figure 2 are shown the results for the total number of lambs up to 1 year in the individual and business sector in the territory of R. Macedonia and certain regions in the period from 2009 to 2012.

Tab. 2. Total number of lambs in R. Macedonia and by regions *Ukupan broj janjadi u R. Makedoniji i po regionima* 

Total number of lambs in R. Macedonia and by regions						
Ukupan broj janjadi u R. Makedoniji i po regionima						
Year	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>		
R. Macedonia	200479	180173	186075	173606		
Vardar region	14346	18782	16503	22737		
Eastern region	31227	29070	27306	24991		
Southwest region	26564	18336	18380	21392		
Southeast region	20222	14772	13555	19156		
Pelagonia region	72980	44429	59862	39805		
Polog region	18302	26688	21560	15884		
Northeast region	6927	13804	11841	8055		
Skopje region	9911	14292	17068	21586		

Source: Republic of Macedonia, State statistical office, husbandry *Izvor: Republika Makedonija, Državni statistički zavod, stočarstvo* 

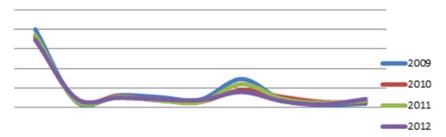


Fig. 2. Total number of lambs in R. Macedonia and by regions *Ukupan broj janjadi u R. Makedoniji i po regionima* 

Source: Republic of Macedonia, State statistical office, husbandry *Izvor: Republika Makedonija, Državni statistički zavod, stočarstvo* 

From the data presented in Table 2 and Figure 2 we can see a downward trend in the number of lambs in the period from 2009 to 2010, a slight increase in the number of lambs in the period from 2010 to 2011, while by 2012 a gradually decreasing trend appears of the number of lamb in the territory of R. Macedonia.

In the Vardar region it can be seen an increasing trend in the number of lambs in the period from 2009 to 2010, reducing number of lambs in the period from 2010 to 2011, while in the period from 2011 to 2012 appears an increasing trend in the number lambs.

In the Eastern region it can be seen a downward trend in the number of lambs in the period from 2009 to 2012.

In the Southwest region it can be seen a downward trend in the number of lambs in the period from 2009 to 2010, while by 2012 appears a trend of increasing number of lambs.

In the Southeast region it can be seen a downward trend in the number of lambs in the period from 2009 to 2011, while in the period from 2011 to 2012 appears a trend of increasing number of lambs.

In the Pelagonia region it can be seen a downward trend in the number of lambs in the period from 2009 to 2010, an increasing trend in the number of lambs in the period from 2010 to 2011, while in the period from 2011 to 2012 appears a trend of reducing number of lambs.

In the Polog region and the Northeast region it can be seen an increasing trend in the number of lambs in the period from 2009 to 2010, while by 2012 appears a trend of reducing number of lambs.

In the Skopje region it can be observed an increasing trend in the number of lambs in the period from 2009 to 2012.

Total number of female cattle for breeding in R. Macedonia and by regions

In Table 3 and Figure 3 are shown the results for the total number of female cattle for breeding in the individual and business sector in the territory of R. Macedonia and certain regions in the period from 2009 to 2012.

Tab. 3. Total number of female cattle for breeding in R. Macedonia and by regions *Ukupan broj ženskih goveda za uzgoj u R. Makedoniji i po regionima* 

Total number of female cattle for breeding in R. Macedonia and by regions						
Ukupan broj ženskih goveda za uzgoj u R. Makedoniji i po regionima						
Year	2009	<u>2010</u>	<u>2011</u>	<u>2012</u>		
R. Macedonia	521523	568302	545214	520765		
Vardar region	52272	103259	89909	72148		
Eastern region	79477	122969	103479	88480		
Southwest region	75186	60179	78600	90794		
Southeast region	65768	55898	43705	40618		
Pelagonia region	147665	101509	101933	96439		
Polog region	44343	39508	39240	51681		
Northeast region	24010	36776	40001	24318		
Skopje region	33802	48204	48347	56228		

Source: Republic of Macedonia, State statistical office, husbandry *Izvor: Republika Makedonija, Državni statistički zavod, stočarstvo* 

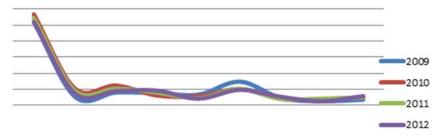


Fig. 3. Total number of female cattle for breeding in R. Macedonia and by regions *Ukupan broj ženskih goveda za uzgoj u R. Makedoniji i po regionima* 

Source: Republic of Macedonia, State statistical office, husbandry Izvor: Republika Makedonija, Državni statistički zavod, stočarstvo

From the data presented in Table 3 and Figure 3 we can see an increasing trend in the number of female cattle for breeding in the period from 2009 to 2010, while by 2012 appears a downward trend in the number of female cattle for breeding in the territory of R. Macedonia.

In the Vardar region and Eastern region it can be seen an increasing trend in the number of female cattle for breeding in the period from 2009 to 2010, while by 2012 appears a trend of reducing number of female cattle for breeding.

In the Southwest region it can be seen a downward trend in the number of female cattle for breeding in the period from 2009 to 2010, while by 2012 appears a trend of gradually increasing number of female cattle for breeding.

In the Southeast region it can be seen a downward trend in the number of female cattle for breeding in the period from 2009 to 2012.

In the Pelagonia region it can be seen a downward trend in the number of female cattle for breeding in the period from 2009 to 2010, trend of increasing number of female cattle for breeding in the period from 2010 to 2011, while in the period from 2011 to 2012 appears a trend of reducing number of female cattle for breeding.

In the Polog region it can be seen a downward trend in the number of female cattle for breeding in the period from 2009 to 2011, while by 2012 appears a trend of increasing the number of female cattle for breeding.

In the Northeast region it can be seen see an increasing trend in the number of female cattle for breeding in the period from 2009 to 2011, while by 2012 appears a downward trend in the number of female cattle for breeding.

In the Skopje region it can be seen an increasing trend in the number of female cattle for breeding in the period from 2009 to 2012.

# Conclusion

From the above analysis of the results for the number of sheep, lambs and female cattle for breeding in the individual and business sector on the territory of the Republic of Macedonia and in individual regions, we can conclude that in the period from 2009 to 2012 there is a downward trend in the number of them. Only in the Skopje region it can be observed an increasing trend in the number of sheep, lambs and female cattle for breeding.

According to unofficial sources the state in sheep breeding in 2013 has been significantly improved. The number of herds of sheep has increased to around 770,000 heads. This trend of increase in the number of sheep is due to the efficient allocation of agricultural subsidies and measures aimed at encouraging the development of sheep breeding in R. Macedonia. However there are still problems in sheep breeding such as the lack of animal feed, unstable purchase prices of lambs and difficult placement on the domestic and foreign markets because of the reduced demand. Another problem occurs because of the lack of interest in engaging with sheep breeding. Many people do not want to be professionally engaged in this activity. Unable to find workers, the owners of sheep herds say that they have no choice but to reduce the number of sheep. Also, one of the reasons for reducing the overall state of the sheep in the country is weak manufacturing technology, hygiene and application of quality standards, because there is only one dairy licensed to export to the EU, while two other dairies have a permit to exports to non-EU countries. However, in recent times, manufacturers show a trend of increasing milk production by improving milk yield in sheep by crossing domestic breed sheep Pramenka and the domestic German breed Vinterberg with breeds that have high genetic potential of milk (Avassi, Sardiniska, Chios and East Frisian).

To overcome all this it is necessary to increase the attention of all relevant institutions in order to improve the situation in sheep breeding, as one of the largest livestock industries that for decades has had one of the leading positions in the field of exports.

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# Trend povećanja ili smanjenja ovčarske proizvodnje u pojedinim regionima Republike Makedonije

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#### Sažetak

Nacionalna poljoprivredna politika u R. Makedoniji za potsticanje razvoja poljoprivrede sprovodi se sa ciljom dobijanja veće konkurentnosti na tržištu, kroz subvencionisanje poljoprivrede, uključujuči i ovčarstvo. Analiza posljednih podataka Državnog zavoda za statistiku R. Makedonije pokazala je da subvencionisanje poljoprivrede ima povećan trend u periodu od 2005. do 2013. godine, što je doprinjelo povećanju izvoza.

Predmet ovog rada je da se uoči brojno stanje ovaca u individualnom i državnom sektoru po regionima na teritoriji R. Makedonije i to: Vardarski, Istočni, Jugoistočni, Pelagonijski, Pološki, Sjeveroistočni i Skopski region. Cilj je da se sagleda da li ova grana stočarstva bilježi trend povećanja ili smanjenja u periodu od 2009. do 2012. godine. Iz analize može se zaključiti da je trend smanjenja i dalje prisutan, ali zadnji podaci za period 2013. godine pokazuju da je stanje za gajenje ovaca znatno bolje.

Ključne riječi: poljoprivredna politika, subvencije, razvojni program

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