

DID THE PORK SECTOR IN ROMANIA REACHED THE MAXIMUM DECLINE?

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Abstract

This paper aimed to analyse the evolution of the pork sector in Romania which continue to fall under the African Swine Fever dramatic effects on Romanian pig livestock. While the last decade was related with a continuous decline of pigs effective in Romania, in 2018 the livestock went down for the first time under 4 million heads. The paper tried to find how was Romania affected at the county and region level, taking into account a five-year trend, from which, the last two were directly influenced by this contagious viral disease. The research method is based on a quantitative approach, based on regional and national time data series for pig livestock. The results indicated that Romania has reached a maximum trend of decreasing of its pig livestock in 2019, but the veterinary safety measures conducted to a decrease in the incidence of AFS within the commercial pig enterprises, and the danger is focused now in the vicinity of households with the wild boar populations.

Key words: pig livestock, African Swine Fever, Romania, regions

INTRODUCTION

Romania was highly affected by the ASF (African Swine Fever) in 2018 and 2019. The pig livestock decreased from the last decade in Romania was correlated with a change in the top of the regions with the highest livestock, the West Region of Development replacing the South Region [1]. All the pork supply chain in Romania is still hardly affected and the market continued to be under pressure of the import pork products from the EU countries. Due its specific epizootic type [2], which affected more the domestic pigs than the wild boar herds, which was not the case in rest of the EU affected countries, the cause of its spread was related with the fail of persons in charge to implement safety biosecurity procedures in order to avoid disease spreading in other farms. Since there is no vaccine against ASF, which limits the options for disease control many studies were toward to the possibilities for limiting the transmission of this disease within the wildlife and domestic pig populations [3]. While some specialists consider that we face a constant,

but relatively slow spread of AFS, and its evolution is related with factors as the host, the virus pathogenesis, and also the environment [4] the recent facts indicates that only in one year close to 5 million pigs were lost due to Asia's swine fever outbreak [5]. After its first landing in Europe in 2007 through a Georgia Black Sea port from East Africa, and its signalling in EU in 2014 [6], the ASF spread rapidly in all the Baltic states and Poland, following its course in countries with significant pig livestock as Czech Republic, Hungary, Romania (since 2017) [7] or Bulgaria. This paper aimed to evaluate the recent evolution of pigs heard in Romania at the level of its regions of development and in relation with the spread of ASF.

MATERIALS AND METHODS

For this paper was first analysed the overall evolution of the Romanian pig livestock, then we developed the analyse at the regions of development level and also at the counties level, in relation with the spread of AFS between 2017 and 2019 in many of Romanian

counties with tradition in pig livestock production. Most of the data were provided by Romanian Authority for Food Safety and Veterinary Health (ANSVSA), the National Institute of Statistic from Romania and FAO.

RESULTS AND DISCUSSIONS

During the 2015-2019 period the pig livestock in Romania decreased with 20% from 4.65 million heads in 2015 to 3.72 million in 2019.

According to Romanian Authority for Food Safety and Veterinary Health (ANSVSA), since the first report of the presence of AFS in Romania at end of July 2017, until the end of January 2020, over 570 thousand pigs and around 2,765 boars were affected in most part of the country. While 2,347 infested areas have been neutralized, the epidemic was still active in 619 outbreaks at the beginning of 2020 [8].

Table 1. The number of existing pigs, by development regions (heads)

	North-East	South-East	South Muntenia	South-West Oltenia	West	North-West	Centre	București-Ifov	TOTAL
2015	517,015	769,467	792,914	587,286	875,522	646,028	450,590	20,589	4,659,411
2016	489,985	657,258	743,468	569,940	959,956	669,586	465,904	18,593	4,574,690
2017	489,083	733,707	650,914	643,310	930,006	593,525	428,002	18,016	4,486,563
2018	432,513	698,725	656,923	523,420	834,654	612,086	349,750	21,222	4,129,293
2019	436,573	434,503	574,530	494,051	846,880	558,025	362,751	18,969	3,726,282

Source: National Institute of Statistics, 2020.

In the North East Region of Development, the pig livestock decreased with 15,5% between 2015 and 2019, from 517 thousand to 436 thousands pigs. The share of the pig livestock of this region in the Romanian total of pigs herds increased during this period up to 11.72% in 2019, from a minim of 10.47% in 2018, which might mean that this region started to recover from the AFS crises.

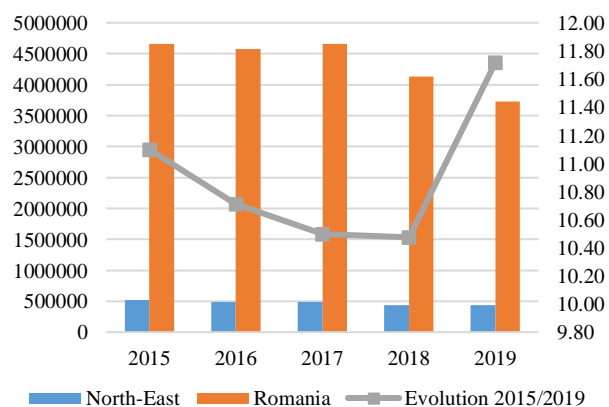


Fig.1. Evolution of pig herds in the North-East Region of Romania

Source: Own determination based on NIS data.

In this region most of the outbreaks that have been closed were recorded in Botoșani county (19 outbreaks). This county faced recently

100 outbreaks in boars, which were still active at the end of January 2020.

In the South East Region of Development, the pig livestock decreased dramatically with 43.5% between 2015 and 2019, from 769 thousand to 434 million pigs.

The share of the pig livestock of this region in the Romanian total of pigs herds decreased during this period from 16.51 % in 2015 to a minim of 11.66% in 2019.

The most affected county by the AFS from the pointed view of number of outbreaks, in the South East Region was Tulcea county, with 586 already closed outbreaks and still 5 active outbreaks in pig livestock and 179 active cases in boars at the end of January 2020. In Brăila county, also situated in this region were recorded 210 outbreaks from which 207 are now closed. Over 4,000 farms from this county were affected from which 17 were specialized large enterprises and one of them was still active outbreak at the end of January 2020. Brăila county recorded the largest amount of slaughtered pigs from Romania due to AFS, almost half of the value of the compensation offered by the authorities (204 million lei from a total at

national level of 403 million lei) being granted in this county.

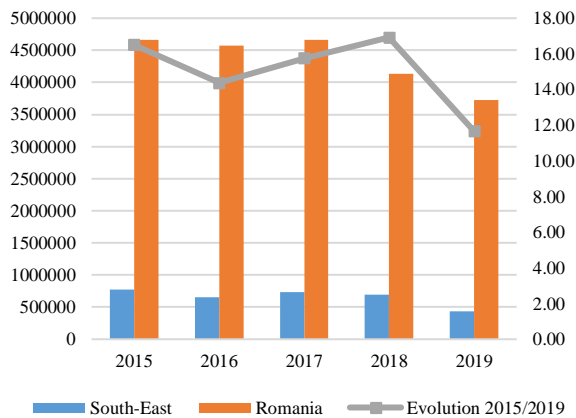


Fig.2. Evolution of pig herds in the South-East Region of Romania

Source: Own determination based on NIS data .

The South– Muntenia Region is the second region after the South East Region significant affected by the ASF in Romania. In this region the pig livestock decreased with 27.5% between 2015 and 2019, from 792 thousand 2015 to 574 thousand pig herds in 2019.

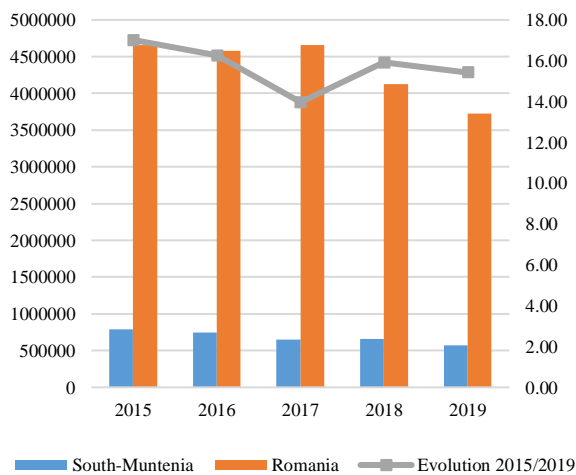


Fig. 3. Evolution of pig herds in the South Muntenia Region of Romania

Source: Own determination based on NIS data.

The region decreased its share in total pig livestock from Romania from 17% in 2015 to 15.42% in 2019. In the South – Muntenia region, Teleorman county was the most affected by the ASF from the point of view of outbreaks number, with 401 outbreaks, from which 198 were still active at the end of January 2020, but the Călărași county

recorded the ASF outbreaks in pig production specialized enterprises, which conducted to a large number of slaughtered pigs, and a high level of the compensation value offered by the authorities (34 million lei). Also in the Argeș county the large number of slaughtered pigs in two large enterprises specialized in pig livestock generated a level of 21 million lei compensation by the authorities.

In the South West Region of Romania, the pig livestock decreased by 15.87 from 2015 to 2019, respectively from 587 thousand pigs in 2015 to 494 thousand pigs in 2019, but the region increased its share in total pig livestock in Romania from 12.6% in 2015 to 13.26% in 2019, having even a large share, of 13.81% in 2017, before the ASF crises started to manifest its effects in the region.

Dolj and Olt were the most affected counties in the South West Region, with 190 respectively 71 closed outbreaks and 79 respectively 68 still open outbreaks at the end of January 2020.

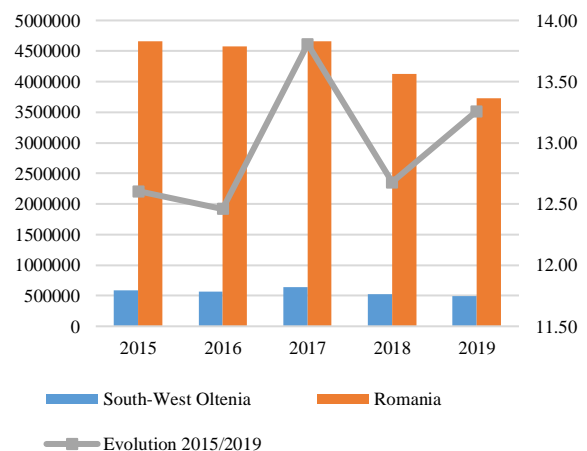


Fig. 4. Evolution of pig herds in the South-West Oltenia Region of Romania

Source: Own determination based on NIS data.

In the West Region of Romania, the pig livestock decreased only by 3.27 % between 2015 and 2019, from 875 thousand pigs in 2015 to 846 thousands pigs in 2019.

The share of the pig livestock of this region in the Romanian total of pigs herds increased during this period to 22.73 % in 2019, from 18.79 % in 2015, this region being the best protected against ASF.

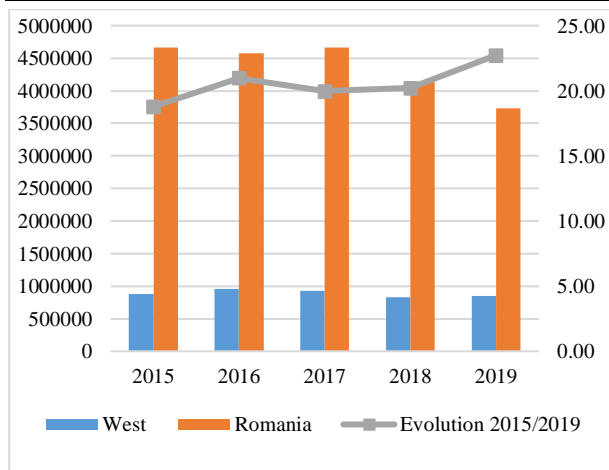


Fig. 5. Evolution of pig herds in the West Region of Romania
 Source: Own determination based on NIS data.

Only the Arad county recorded a significant number of outbreaks: 35, but all of them were closed. Some active cases at the end of January 2020 (59) were recorded in Arad county within the wild boar population.

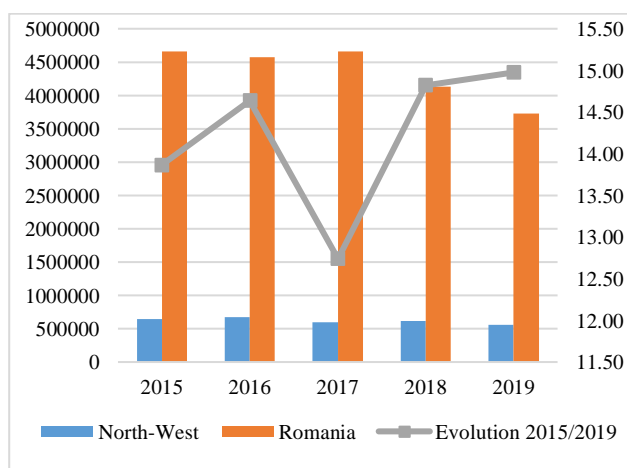


Fig. 6. Evolution of pig herds in the North-West Region of Romania
 Source: Own determination based on NIS data.

In the North West Region of Romania, the pig livestock decreased by 13.62 % between 2015 and 2019, from 646 thousand pigs in 2015 to 558 thousands pigs in 2019, but the share of the pig livestock of this region in the Romanian total of pigs herds increased during this period from 13.87 % in 2015 to 14.98 % in 2019.

Bihor and Satu Mare were the most affected counties in the North West Region of Romania, with 97 and 56 outbreaks that have been closed. In this counties were still active

at the end of January 2020, 227 respectively 174 cases of AFS in the wild boar population. In the Centre Region of Romania, the pig livestock decreased by 19.49 % between 2015 and 2019, from 450 thousand pigs in 2015 to 362 thousands pigs in 2019, but the share of the pig livestock of this region in the Romanian total of pigs herds slightly increased during this period from 9.67 % in 2015 to 9.73 % in 2019.

Few cases of AFS have been recorded in the Centre Region, the evolution of the pig livestock in this part of the country being related only with the production and the market conditions.

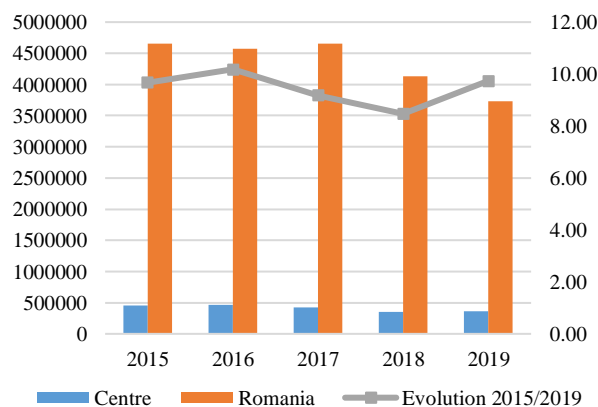


Fig. 7. Evolution of pig herds in the Centre Region of Romania
 Source: Own determination based on NIS data.

In the Centre Region of Romania, the pig livestock decreased by 7.86 % between 2015 and 2019, from 20.5 thousand pigs in 2015 to 18.9 thousands pigs in 2019, but the share of the pig livestock of this region in the Romanian total of pigs herds slightly increased during this period from 0.44 % in 2015 to 0.51 % in 2019.

Two important enterprises specialized in pig livestock were affected by the AFS, generating, besides other 46 farms a compensation value, offered by the authorities of 37 million lei. A significant number of 171 AFS cases were still active at the end of January 2020 within the wild boar population.

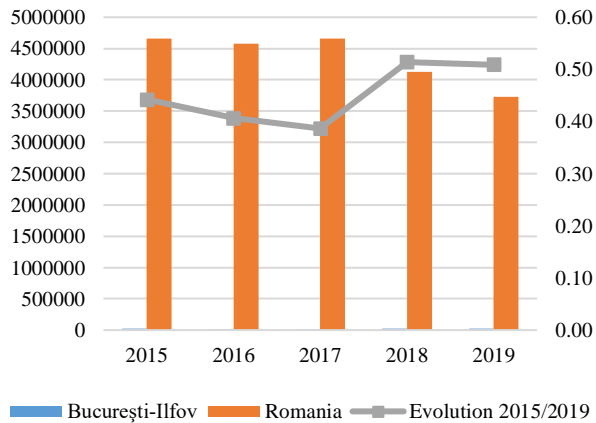


Fig. 8. Evolution of pig herds in the București-Ilfov Region of Romania

Source: Own determination based on NIS data.

CONCLUSIONS

Romania continued to be affected by the African Swine Fever, but the spread of the diseases seems to reduce at the beginning of 2020. While the enterprises specialized in pig livestock took measures to avoid the spreading within their herds, the households are still vulnerable and the major danger comes now mostly in relation with the wild boar population.

The increased security of the farms and the improved reaction of the factors involved in veterinary security started to limit the impact of this crisis on the internal pork market, but the loss of significant swine breeding herds will hardly be recovered.

The deficient in Romanian trade balance with pork products will become higher since exports from 25 counties are forbidden now in the EU.

The West Region is the least affected region in terms of pig livestock from Romania, and the few cases of AFS within the enterprises from this region is a hint that safety measures can be efficient even if spreading of this diseases seems hard to stop since there is no vaccine to stop it yet.

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