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IMPLICATIONS OF THE NATIONAL AND EU LAWS CONCERNING THE AFRICAN SWINE FEVER ON THE ROMANIAN RURAL ECONOMY

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Abstract

The African swine fever (ASF) represents one of the most dangerous infectious diseases of swines, with often acute manifestations and high morbidity. It is widely known that the disease has become common among domestic pigs and also that there are no effective vaccines or treatments to fight the virus. Despite the fact that this issue benefits from an increased interest in the established international literature, as well as at the level of the European Union legislation, in Romania there is a reduced degree of academic, as well as legislative attention in this regard. Especially in the context of the outbreaks in Romania and in Bulgaria in the current year, there is a need for increased awareness at both levels, which should be reflected in new, substantive legislative measures to keep the phenomenon under control. The paper considers a comparative analysis between the EU legislation on the ASFV and that of Romania, in order to outline both the areas of improvement of the Romanian legislation and the influences on the rural economy. The present undertaking concludes with a series of personal reflections in this regard, pointing to future prospects for public policies in order to limit the spread of African swine fever virus.

Key words**:** *African swine fever, outbreaks in Romania, comparative legislative analysis*

INTRODUCTION

The African swine fever is known for being an acute, highly contagious and deadly disease of domestic pigs, wild boars and other members of the family Suidae [6]. According to the virulence of the virus, the disease can vary from peracute to chronic forms. In the peracute form, sudden death with unrelevant symptoms can be observed can be observed. The acute forms illustrate the following symptoms: high fever – ranging from 40.5- to 42°C-, depression and inappetence, coughing and increased respiratory rate, abortions, discharges from the eyes and nose, hyperaemia, cyanosis of the skin, particularly of the ears and snout (usually observed in white-coloured swines), vomiting and diarrhoea. Mortality usually occurs after 3 to 7 days and can reach 100%. The survivors will be life carriers of the virus. In the subacute forms, the same symptoms can be observed, however to lower extent and gravity, with abortions standing out as a constant, and mortality occuring within 2 to 7 weeks [6, 8]. In the chronic forms, the following symptoms can be observed: irregular fever, loss of weight, symptoms similar to pneumonia, pericarditis, necrosis and ulcers of the skin [9].

In terms of differential diagnosis with the classical swine fever, hemorrhagic lesions in ASF are much more severe than in classical swine fever. The appetite and general good condition tend not to be affected visibly in ASF until near the death of the animal, as opposed to the classical swine fever [2].

The paths of virus transmission can be either direct, through skin to skin contact between sick and healthy animals, or indirect, by feeding with domestic waste containing infected meat. The virus lasts 3-6 months in non-heat-treated infected meat products, as well as vehicles were the meat was stored, clothes that went in direct contact with such meat products. The sources of viruses are the blood, tissues, secretions or excretions of sick or dead animals; the animals that have gone through the disease (acute or chronic form) that remain virus-carrying; as well as ticks of the genus *Ornithodoros* [9].

Although it is widely known that no treatment or vaccine is available for the African swine fever, there are a series of prophylactic measures that help diminish the spread of the virus, such as: boiling the domestic wastes for an hour and a half –measure which results in the actual killing of virus (Trevor Drew cited in [7]), following the national and international guidelines concerning the use of biosecurity protocols, hygiene rules (use of showers and different clothing whenever in contact with any potentially infected animals), as well as end-to-end transportation and isolation measures to insure the lack of spread [6].

The international literature concerning the ASF has flourished in the last years, both in what concerns its epidemiological dimension and its essential economic impact [1, 3, 4, 10]. Although our country has been and still represents the subject of numerous outbreaks of the ASF, very few pieces of research have considered this topic particularly in the recent literature in Romania (for instance [14]) and virtually none in terms of a broad legislative analysis focused on diminishing the phenomenon.

On January 14th of this year, the African Swine fever was currently evolving in 246 localities in 25 counties in Romania, with 585 outbreaks (of which 8 outbreaks in commercial holdings and 2 outbreaks in type A holdings) [18]. The latest outbreaks were reported on January 11, 36 in number, according to the European Commission. The quantity of dynamic post-holes diminished by 24 from the past update. In other 11 regions, just instances of wild pig were analyzed. Since the foremost report of the nearness of the PPA infection in Romania, on July 31, 2017, 551 799 pigs influenced by the ailment have been yielded and 2 558 cases have been recognised as such in wild hogs. Altogether, 2334 episodes were stifled [16].

MATERIALS AND METHODS

The present paper looks at the general recommendations provided by the current EU legislation in force in regards to the African swine fever and the Romanian legislation in this direction, in order to identify the following:

-the main key points of action in terms of legislative initiatives to be taken both in our country and at the level of the EU

-the broad economical implications of the existing EU and Romanian legislation.

This undertaking only considers the recent developments in regards to the ASFV legislation and, thus, is not centered on a historical approach, but rather on a conceptual one.

RESULTS AND DISCUSSIONS

The most encompassing piece of legislation in regards to the African swine fever in the EU is the Council Directive 2002/60/EC of 27 June 2002 [5].

In this framework, the latest specific regionalization measures that have been taken with respect to evolution of the ASF situation in the EU are included in Commission Implementing Decision of 9 October 2014 (2014/709/EU) (as latest amended by Commission Implementing Decision (EU) 2020/15 of 9 January 2020) along with Commission Implementing Decision (EU) 2019/1334 of 7 August 2019 [5].

The document SANTE/7112/2015 has been created to set out the standards and criteria for the geographical and temporal characterization of the ASF, consisting in a regionalization tool. The document outlines the key procedures in the management of the African Swine Fever in the EU. The ASF strategic approach is intended to the EU

member states touched by the illness, as well as the member states which are considered far from the ailment, however with a minimum danger of come-back. It is proposed to forestall the spread of the illness and in the end to take out the sickness in the affected regions. The strategic approach which forms the basis of SANTE/7112/2015 was formed and renewed considering the most recent developments from EFSA and its acquired experience. These guidelines of the document are based upon:

-The provisions of Council Directive 2002/60/EC, and specifically of Articles 15 and 16 [5].

-Commission Implementing Decision (EU) 2018/1512 of 10 October 2018 amending the Annex to Implementing Decision 2014/709 / EU on zoosanitary measures on zoosanitary measures to fight the African swine fever in certain member states [5];

- Council Directive 90/667/EEC of 27 November 1990 laying down the veterinary rules for the disposal and processing of animal waste, for its placing on the market and for the prevention of pathogens in feedstuffs of animal or fish origin and amending Directive 90/425/EEC [5];

-Chapter IV(H) of the Annex to Commission Decision 2003/422/EC [5];

-the EFSA Scientific Opinion of the Panel on AHAW on the control and eradication of Classic Swine Fever in wild boar;

-the EFSA Scientific Opinion of the Panel on AHAW on African swine fever [5].

The EU enactment referenced here is completely in accordance with the OIE universal benchmarks. In any case, so as to guarantee a more elevated level of creature wellbeing assurance, the EU goes past the OIE necessities and applies stricter guidelines.

In Romania, the following laws are in force in what concerns the issue of ASFV:

-Government Decision no. 830/2016 for the approval of the National Program for surveillance, prevention and control of African swine fever, as well as for the completion of some normative acts and for the modification of the annex no. 3 to the Government Decision no. 1156/2013 for the approval of the sanitary-veterinary actions included in the Program of actions for the surveillance, prevention, control and eradication of diseases in animals, those transmitted from animals to humans, animal protection and environmental protection, identification and registration of cattle, pigs, sheep, goats and equidae, the actions provided for in the Food Safety Supervision and Control Program, as well as their tariffs [8].

- the Veterinary sanitary norm regarding the diagnostic procedures, the methods of sampling and the criteria for evaluating the results of the laboratory tests, for the confirmation of the classical swine fever from 04.12.2002 [19];

- Order no. 77 of August 15, 2005 (updated) for the approval of the Veterinary Sanitary Rule regarding the notification of animal diseases [11];

- Order no. 79 of September 18, 2008 for the approval of the Veterinary Sanitary Norm regarding the internal notification and the official declaration of transmissible diseases of the animals [12];

- Order no. 99 of April 26, 2006 (updated) for the approval of the Veterinary Sanitary Rule regarding the control of African swine fever [13];

- Romania's contingency plan for African swine fever; Foundation Note - GD no. 583/ 09.08.2017 [15];

- the National program for surveillance, prevention and control of African swine fever since 09.11.2016 [8];

- the project to modify the Order of the Ministry of Agriculture and Rural Development for establishing the size of pig farms on the territory of Romania [16];

- the draft amendment of N.S.V.F.S.A. and Ministry of Agriculture and Rural Development Order regarding biosecurity norms in pig holdings -will be adopted after the adoption of the MARD Order for establishing the sizing of pig farms. - Transitional period 4 months -implementation estimated on April, 2020 [16];

- the draft amendment of Government Decision for increasing the amount of fines for breaching the rules imposed by veterinary legislation [16];

- The National Disease Control Centre Decision no. 1/2019. Portable disinfection devices are installed at the entrance and exit of markets, vegetable and fruit fairs. Pig raising is prohibited in isolated areas like sheepfolds, forest cantons, etc. Traffic controls are being intensified. These checks are carried out by joint teams of three institutions: IPJ (police), IJJ (gendarmes), and DSVSA (local veterinary authority) [16].
- the draft of the Government Decision to approve measures for the surveillance, prevention and control of African swine fever among the wild boar population;
- Order for the approval of the sanitary-veterinary norm and for the food safety regarding the authorization, registration and control of the sanitary-veterinary laboratories and for the food safety in which laboratory testing and analysis activities are conducted (20.01.2020).
- Government Decision no. 830/2016 for the approval of the National Program for surveillance, prevention and control of African swine fever [8];
- Project of Government Decision for the completion of the annex to the Government Decision no. 830/2016 for the approval of the National Program for surveillance, prevention and control of African swine fever, as well as for the completion of some normative acts and for the modification of the appendix no. 3 to the Government Decision no. 1156/2013 for the approval of the sanitary-veterinary actions included in the Program of actions for surveillance, prevention, control and eradication of diseases in animals, those transmissible from animals to humans, animal protection and environmental protection, identification and registration of cattle, pigs, sheep, goats and equidae, the actions provided for in the Food Safety Supervision and Control Program, as well as their tariffs;
- the draft amendment of the Ministry of Agriculture and Rural Development Order for establishing the sizing of pig farms in the territory of Romania.

From its inception, the European legislation has focused on in-depth measures to narrow down and combat the African swine fever virus in its most detailed features, consisting of:

-enhanced traceability of both infected and clear of infection meats throughout the member states, especially in countries with high numbers of outbreaks – understood as end-to-end safety of transportation, real-time location of all vehicles carrying pork, as well as fixed routes, without any stops (Council Directive 2002/60/EC, and amending Directive 92/119/EEC as regards Teschen disease and African swine fever, curently updated with all the areas with outbreaks in Romania, as well as the other member states) – all of which have been approached by the Romanian legislation

-thorough hygiene and biosecurity norms (SANCO/7138/2013), understood as the following: introducing pigs only from certified sources in farms; training of all personnel regarding the importance of bodily hygiene, disinfection (showering prior and after farm entrance) and clothes' changing; perimeter fencing preventing contact with feral pigs (double fences preferable)

-ASF regionalization tools laying down the rules for classifying countries with different degrees of infection (SANTE/7112/2015), and currently updated through Commission Implementing Decision (EU) 2020/15 of 9 January 2020- making Romania a Part III country of the Appendix, thus with a high number of outbreaks

- financial support to countries affected by the ASFV - European Commission, Regulation (EU) No 652/2014
- forbiddance of pig entry or exit in farms where suspicions of ASFV cannot be infirmed, along with the possibility to further expand the interdiction to exit and to destroy rodents and insects that can spread the virus [Article 4, paragraph 4, letter c) of Council Directive 2002/60/CE]
- establishing a temporary control area around the holdings, where needed [Article 4, paragraph 3, letter b) of Council Directive 2002/60/CE]. In Romania, the protection area around outbreaks is of 3 kilometers, where the surveillance area is of 10 km [12]. This means that on a range of 3 kilometers all swines are to be sacrificed, and that none are allowed to

enter or exit for a range of 10 kilometers. The alert is lifted after 3 months if no other outbreak is observed [17].

As it appears, the Romanian legislation has developed many legislative initiatives and has managed to align itself with the European legislation in force in most key-points: enforcing strict hygiene and transportation norms, thorough quarantine rules in all areas with outbreaks and reimbursement of pig owners where needed. However, one aspect remains unaddressed by our country's legislation.

Raising pigs in non-professional establishments is a typical and conventional practice for the most part of the rural areas in Romania and this remains largely unregulated. This kind of raising has a significant place in the local rural practices, both cultural and economical. It offers significant amounts of meat supplies for people and it produces important earnings. Aside from that, countryside pigs are as often as possible sustained with scraps from the kitchen, just as with crisp grains and grass in summer. Be that as it may, swill nourishing is illegal in Romania and upheld by the national enactment. In any case, regardless of whether this is anticipated by the enactments, it is hard to control. Countryside pigs are not butchered in abattoirs, yet are butchered at home. This home butchering is normally performed around Christmas time or at whatever point new meat supplies are required. Customarily, pigs are exchanged either on free markets or by direct contact of the proprietor with potential clients. In this regard, there are no legislative measures to control or at least to influence the feeding practices of swines, as well as their slaughtering and commercialization. While any political measures in this regard will be highly unpopular, we consider them important in order to further limit the spread of the ASFV, as backyard pigs have been deemed as important sources of the virus.

Spain and Portugal are often mentioned as success stories of countries having overcome the ASFV. Both pride themselves with an intense indemnification of farmers –paying high amounts so that cases of ASFV are reported, swines are turned in and that the news is spread- and an equally intense collaboration with the EU and its member states. However, coincidentally or not, Spain is currently one of the countries whose swine population has been mostly auctioned or directly sold to meat producers. The fact that the country is considered reasonably far from serious outbreaks can be attributed to the fact that farmers have been determined formally or informally not to rear pings in non-commercial holdings.

In Romania, there would be a number of measures to be imposed to non-commercial or individual holdings like: following minimum biosecurity standards, acquiring swines only from authorized units, requiring documents for the buying and transportation of each swine, along with registration; and a closer collaboration with the local veterinary medical doctor.

All of these rules are thoroughly followed by commercial farms, but not in the least by non-commercial holdings.

However, as enforcing the abovementioned rules by law would be virtually impossible to track empirically, perhaps the legislators should consider the even more unpopular measure of forbidding pig rearing altogether.

In what concerns the very thorough quarantine norms imposed by our legislation and that of the EU, we consider them highly influential in what concerns the future of the pork industry in Romania. Since no animal passing is allowed in a range of 10 kilometers in surveillance areas, farms are equally confined on a range of 3 kilometers from an outbreak and birth rates remain equally high, the overpopulation of farms is inevitable. This has very important costs on the pork industry in Romania, as the meat in these farms remains uncapitalized.

Furthermore, the fact that Romania is on the Part III of the Appendix pertaining to Decision (EU) 2020/15 of 9 January 2020 has important consequences on our country's national brand, and does not enhance public knowledge of the phenomenon. Most importantly, it does not bring about direct benefits such as, for instance, a by-default right to funds for swine restocking. However,

since the European Commission Regulation (EU) No. 652/2014 is based on a thorough a system of cost reimbursements, seeking to streamline EU co-financing in this policy area up to 100% in case of activities countering serious human, plant and animal health risks, what our country could do is to further continue the efforts to restock the pig populations after the infection alert is lifted.
Naturally, this would imply a great financial effort from the authorities until the costs are being reimbursed under the European Commission Regulation (EU) No. 652/2014. However, it would be an important step in the repopulation of pigs after the powerful effect of the ASFV in Romania.

CONCLUSIONS

Our analysis has shown that while our country's legislation is well aligned to that of the EU in what concerns the spread of the ASFV, not the same can be said about the practice of non-commercial, individual holdings. Most likely, until pig rearing in private farms becomes either very strictly regulated or ultimately eliminated, the rapid evolution of the ASFV and decrease of the pig population remains imminent.
Additionally, further legislative efforts are needed to combat the overpopulation of farms and the diminishing quantities of pork reaching the markets as a result of restraining the access in and out of farms.
Romania's presence on Part III of the Appendix pertaining to the European Commission Regulation No. 652/2014 does not help our country in this regard, nor does it raise awareness around this issue, but is rather influential on our country's brand and access of local meats on the European markets in the future.
Last but not least, the opportunities offered by the European Commission Regulation No. 652/2014 provide for a framework of pig restocking, provided that the local authorities assume a significant indemnification of owners based on replacement after the alert is lifted.

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