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OIE and FAO join forces to counter ASF

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SUMMARY

African swine fever (ASF) is an infectious disease of domestic and wild pigs, which went beyond its natural range (African continent) in the XXI century and since 2007 (emergence in Georgia) has spread to many European and Asia-Pacific countries. According to the immediate notifications and follow-up reports, by early 2021 Europe accounted for about 68% of globally reported outbreaks. However, the greatest losses in the pig industry were inflicted by the outbreak recorded in Asia in 2020, when 6,733,791 animals died that accounted to 82% of the total global losses due to ASF. Just after several years of the current ASF epizootic, without any vaccine or treatment available, it became clear that major problems for the pig industry (mostly for small farmers) as well as destabilization of the global market of pig products were unavoidable. In this regard, in 2014 (Bern, September 2014) a regional standing group of experts on African swine fever (SGE ASF) was established under FAO/OIE GF-TADs umbrella. The aim of the group is to foster closer collaboration between the affected countries, increase transparency and share experience in prevention and control. The work of the permanent expert ASF missions under the GF-TADs umbrella has proven effective and become a model for other regions. A similar group was established in Asia in April 2019 to counter rapid spread of the disease in the Asia-Pacific region, where more than 60% of the world's pig population is concentrated, and a new permanent ASF expert group for the Americas is being considered. The many-year efforts resulted in the establishment of the FAO/OIE/GF-TADs platform as a progressive mechanism to combat such transboundary disease as African swine fever.

Keywords: African swine fever, epizootics, expert group, FAO, OIE.

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МЭБ и ФАО объединяют усилия, чтобы противостоять африканской чуме свиней

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РЕЗЮМЕ

Африканская чума свиней — инфекционное заболевание домашних и диких свиней, которое в XXI в. вышло за пределы своего естественного ареала (Африканский континент) и с 2007 г. (после появления в Грузии) распространилось по многим странам Европейского и Азиатско-Тихоокеанского регионов. К началу 2021 г., по данным срочных сообщений и последующих отчетов, 68% всех зарегистрированных в мире вспышек инфекции приходилось на Европу. Однако наибольшие потери свиноводству нанесла вспышка, зарегистрированная в Азии в 2020 г., когда погибло 6 733 791 животное, что составляет 82% от общих мировых потерь отрасли из-за АЧС. После нескольких лет течения современной эпизоотии АЧС, при отсутствии вакцины и средств лечения, стало ясно, что серьезных проблем для свиноводческой отрасли (и в особенности мелких фермеров), а также дестабилизации мирового рынка свиноводческой продукции не избежать. В связи с этим в сентябре 2014 г. в Берне под эгидой ФАО/МЭБ GF-TADs была создана региональная Постоянная группа экспертов по АЧС в Европе (SGE ASF). Целью ее работы является налаживание более тесного сотрудничества между странами, затронутыми заболеванием, повышение прозрачности и обмен опытом профилактики и борьбы. Работа миссий постоянных экспертов по АЧС под эгидой GF-TADs в Европе показала свою эффективность и стала образцом для других регионов. В апреле 2019 г. аналогичная группа была создана и в Азии, чтобы противостоять быстрому развитию болезни в Азиатско-Тихоокеанском регионе, где сосредоточено более 60% мирового поголовья свиней. Прораба-

тывается вопрос создания новой постоянной группы экспертов по АЧС для стран Северной и Южной Америки. Результатом многолетней работы стало создание платформы ФАО/МЭБ/GF-TADs в качестве прогрессивного средства борьбы с такой трансграничной болезнью, как африканская чума свиней.

Ключевые слова: Африканская чума свиней, эпизоотия, группа экспертов, ФАО, МЭБ.

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After FMD epidemic in Europe, South America, Africa and Asia in 2001, the international community has taken concerted measures to combat transboundary infectious animal diseases, which have a significant impact on food security, public health and international trade in animal products. As a result of this work, the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) was developed and adopted, the general agreement on which was signed between the Food and Agriculture Organization of the United Nations (FAO) and the World Organization for Animal Health (OIE) on May 24, 2004. This agreement suggests the participation of the World Health Organization (WHO) in the prevention of zoonoses [1].

Taking into account the challenges that African swine fever (ASF) has brought to the countries of Europe and the Asia-Pacific region in the XXI century (Fig. 1), a regional Standing group of experts on ASF (SGE ASF) was established under the auspices of the FAO/OIE GF-TADs in Bern in September 2014 to improve cooperation between the countries affected by this disease, increase transparency and share experience in the control [2].

At the first meeting of the SGE ASF, it was decided to:

1. Establish a Standing Group of Experts on ASF.

2. Agree on the working procedure of the Standing Group of Experts on ASF. From the Russian Federation, the group of standing experts in Europe included Candidate of Science (Veterinary Medicine) N. V. Lebedev (Rosselkhoz nadzor, 2014), Doctor of Science (Biology) K. N. Gruzdev and since 2017 Candidate of Science (Veterinary Medicine) A. S. Igolkin (FGBI "ARRIAH").

In its activities, the Permanent Group of Experts on ASF in Europe under the auspices of GF-TADs conducted a huge analysis study of the competent authorities' experience in the prevention and eradication of ASF outbreaks in Eastern Europe, including Ukraine, Belarus, the Baltic states, as well as in Russia, and the study of the causes of infection outbreaks. For this purpose, the experts of the GF-TADs group visited ASF infected countries as part of their missions. The data obtained were analyzed and presented at GF-TADs expert meetings: in Lithuania – in March 2015; in Belarus – in April 2015; in Latvia – in May 2015; in Russia – in May 2015; in Ukraine – in September 2015; in Estonia – in October 2015; in Moldova – in October 2016; in the Czech Republic – in October 2017; in Romania – in December 2017; in Bulgaria – in January 2019; in Belgium – in June 2019. In addition, 15 Permanent Expert Group Meetings were held in Europe (SGE ASF1–15). The

meetings were attended by numerous delegates from observer countries at the invitation of the GF-TADs Chairman, Dr. B. Van Goethem.

At the 4th meeting (SGE ASF4) in May 2016 in Paris (France), during the 84th OIE General Session, new developments in the field of ASF epidemiology in the region were discussed in order to strengthen the measures taken to combat this disease after the SGE ASF3 meeting. In accordance with the recommendations of the SGE ASF3, Moldova and Romania joined the initiatives of the participating countries.

At the meeting held in May 2017, an appeal was made for increased vigilance in Romania, Hungary, Slovenia and the Czech Republic, neighboring ASF infected countries in the region. The need to share ASF awareness-raising data available in countries targeted for the general public (including carriers and tourists, hunters and farmers) was also highlighted. The collected data are published in the GF-TADs depository on African swine fever (http://web.oie.int/RR-Europe/eng/Regprog/en ASF_depository.htm). This resource is freely available to users and is regularly updated with actual information.

The SGE ASF10 meeting was held on May 22, 2018 in Paris (France) as part of the 86th OIE General Session and was dedicated to updating of information on the epidemic situation and control measures in the SGE ASF group countries, adopted in March 2018 at the SGE ASF9 meeting. Hungary was included in the SGE ASF list of countries after confirming ASF in a wild boar found dead on April 19, 2018 on its territory.

At the SGE ASF11 meeting in 2018 in Warsaw, Poland, recommendations were approved concerning, *inter alia*, the proper management of wild boars in infected or not yet infected areas. During the event, GF-TADs experts discussed the data obtained on the ecology and epidemiology of wild boar in Europe, the experience of hunters, as well as new data on the relationship between ASF outbreaks in the population of wild boar and domestic pigs in infected areas.

As a result, the meeting emphasized the need for the early release of the "OIE Handbook on African Swine Fever in Wild Boars and Biosecurity during Hunting" (V. Guberti et al.), with the possibility of updating the document as necessary.

The SGE ASF12 meeting was held on March 11 and 12, 2019 in Prague (Czech Republic) in conjunction with the BTSF (Better Training for Safer Food) meeting. The event included a technical training on ASF eradication based on the experience of the Czech Republic in eliminating this infection in the wild boar population.

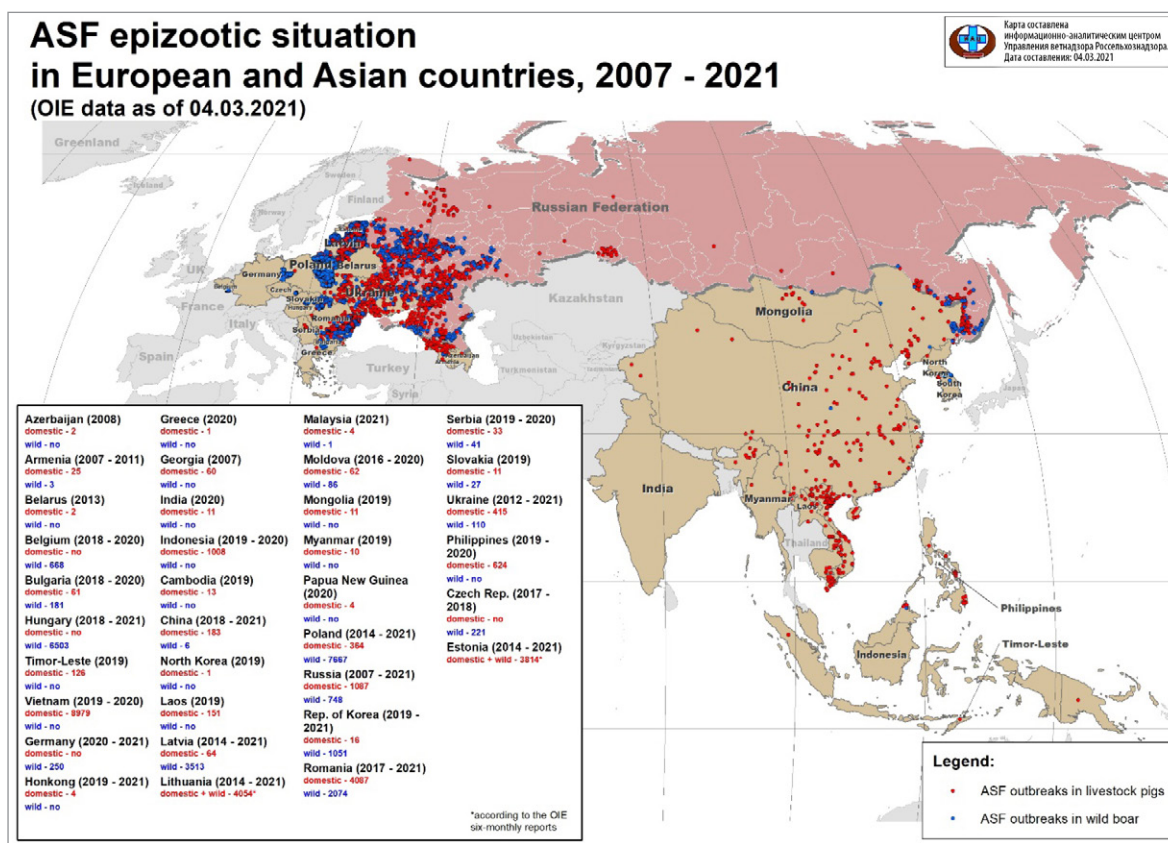


Fig. 1. ASF epidemic situation in the Russian Federation, European and Asian countries, 2007–2021 (the map is prepared by the officers of the Information Analysis Centre, FGBI "ARRIAH")

Рис. 1. Эпизоотическая ситуация по АЧС в Российской Федерации, странах Европы и Азии, 2007–2021 гг. (данная карта подготовлена сотрудниками информационно-аналитического центра ФГБУ «ВНИИЗЖ»)

The SGE ASF13 meeting was held on May 29, 2019 in Paris (France) as a side event of the OIE 87th General Session, attended by representatives of ASF-infected European countries, as well as observers from around the world. Thirteen ASF infected European countries reported on the current situation and the measures taken. The OIE Regional Representation in Asia provided information on the disease situation in its region and the steps taken to establish a working group of experts on ASF in the region [3], and the delegate from Canada reported on recent initiatives being implemented in the Americas to improve ASF prevention and preparedness.

The extended meeting of SGE ASF14 was held in September 2019 in Sofia (Bulgaria) under the chair of the OIE Director General, Dr. Monique Eloit, during which the Balkan countries joined the Standing Group of Experts on ASF in Europe (SGE ASF GF-TADs) [4].

The participants of the meeting pointed out that the consequences of the current global ASF crisis are a serious problem for the pig industry; they call into question the possibility of small farming existence in future and destabilize the global market of pig products.

Taking into account the analysis of the data collected so far during the GF-TADs expert missions in Europe, two main patterns of ASF epidemic are observed:

- 1) in most countries, the disease occurs mainly in wild boar populations, sometimes with zero outbreaks in domestic pigs;
- 2) the disease in the population of domestic pigs occurs mainly in small-scale farms and backyard farms.

But the possibility of ASF outbreaks at a significant distance from the infected areas should not be excluded (for example, in the Czech Republic in June 2017 the outbreak occurred more than 500 km from the infected areas of Poland and Ukraine; in Belgium in August 2018 – about 1,000 km from the nearest infected area in Poland) [5].

The experience gained by the international community has once again shown that in order to stop the spread of this disease, with no vaccines available, effective coordination of actions, cooperation and exchange of knowledge between all stakeholders, both at the international (national) and regional levels, is necessary. ASF Control is possible only if all veterinary regulations are strictly complied with [4].

The fifteenth meeting of the Standing Group of Experts on ASF (SGE ASF15), originally scheduled to be held face-to-face in Slovakia, due to the new coronavirus infection (COVID-19) unfavorable situation in the world, was held on May 6, 2020 in the form of a teleconference. It was attended by representatives of 31 European countries, as well as China and Japan. The speakers from the SGE ASF member countries in Europe briefly described the national ASF situation, focusing on the changes that have occurred since the last meeting in Sofia in September 2019.

The positive experience of anti-crisis management of the ASF situation in Belgium was noted.

Report on the results of the SGE ASF expert mission to Serbia conducted in December 2019 (with the participation of Doctor of Science (Biology) K. N. Gruzdev) was

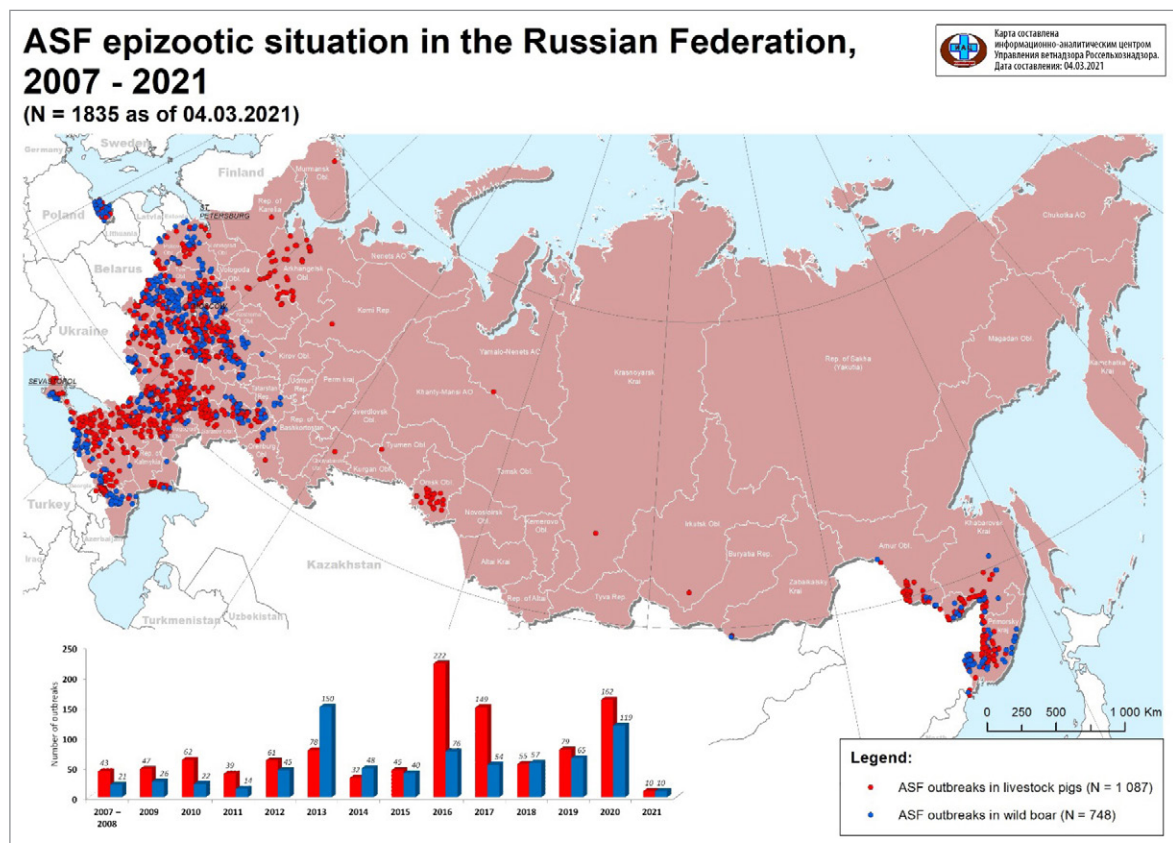


Fig. 2. ASF epidemic situation in the Russian Federation, 2007–2021
(the map is prepared by the officers of the Information Analysis Centre, FGBI "ARRIAH")

Рис. 2. Эпизоотическая ситуация по АЧС в Российской Федерации, 2007–2021 гг.
(данная карта подготовлена сотрудниками информационно-аналитического центра ФГБУ «ВНИИЗЖ»)

approved without comments and posted on the GF-TADS page of the OIE website for Europe.

Scheduled for April 2020 mission of SGE ASF experts to Slovakia was postponed due to the COVID-19 pandemic.

In 2020 the OIE and FAO, in collaboration with GF-TADS, have developed the GF-TADS initiative for the Global control of ASF online platform, which summarizes the experience of ASF eradication in modern conditions and contains a strategy for progressive control of the disease [6, 7]. At the end of July 2020, this platform was launched [8]. It is expected that FAO/OIE, together with GF-TADS, will develop this initiative by supporting national, regional and global partnerships, improving prevention and preparedness measures, and minimizing the adverse effects of ASF [9].

The Russian Federation cooperates extensively with the FAO and the OIE, initiating numerous proposals for the prevention and control of infectious animal diseases, including ASF. Representatives of our country actively participate in the work of various groups, commissions of these organizations, meetings, symposiums, conferences, as well as the OIE General Sessions. Since the introduction of ASF in Georgia in 2007, the Rosselkhoz nadzor urges the world veterinary community and the veterinary services of neighboring countries to actively cooperate and share their experience in the prevention and control of ASF. The reports of the Russian Federation on the detection of infectious diseases sent to the OIE through the World Animal Health Information System (WAHIS) are transparent and fully reflect the epizootic situation in the country (Fig. 2).

The Rosselkhoz nadzor is actively working to strengthen national sanitary measures, including biosafety in pig farms, measures to regulate the number of wild boar, conducts educational work, updates regulations, organizes the exchange of scientific information on the etiology, epizootology, and the use of safe methods in the entire chain of production and sale of pig products.

CONCLUSION

In the XXI century, African swine fever (of domestic and wild pigs) has expanded its habitat. In recent years, the number of countries and territories in Europe and Asia affected by ASF has increased. Recognizing the increased risk of this disease in any country in the world and its significant impact on the development of pig farming, trade, food security, national and global economies, FAO and the OIE are taking active measures to counter ASF. The FAO/OIE GF-TADS platform proves itself as a progressive mechanism for combating such a cross-boundary disease as ASF.

REFERENCES

1. Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADS). Available at: <http://www.gf-tads.org/>.
2. OIE. African swine fever. Available at: <https://rr-europe.oie.int/en/our-missions/animal-diseases/african-swine-fever/>.
3. OIE. African swine fever in Asia. Available at: <https://rr-asia.oie.int/en/projects/asf/>.

4. OIE. African swine fever. Available at: <https://www.oie.int/en/animal-health-in-the-world/animal-diseases/african-swine-fever/>.

5. OIE. European politicians and scientists join forces to face ASF. Available at: <https://www.oie.int/en/for-the-media/press-releases/detail/article/european-politicians-and-scientists-join-forces-to-face-asf/>.

6. FAO/OIE. Global control of African swine fever: A GF-TADs initiative (2020–2025). Paris; 2020. 17 p. Available at: <http://www.fao.org/3/ca9164en/CA9164EN.pdf>.

7. OIE. Global control of African swine fever: A GF-TADs initiative. Available at: <https://rr-americas.oie.int/en/projects/gf-tads/>.

8. Rosselkhoznadzor. World Organization for Animal Health presented a report on global African swine fever situation [Vsemirnaya organizaciya po ohrane zdorov'ya zhivotnyh predstavila doklad o global'noj situacii po afrikanской chume svinej]. Available at: <https://fsvps.gov.ru/fsvps/asf/news/36748.html>. (in Russian)

9. OIE. Global action needed now to halt spread of deadly pig disease. Available at: <https://www.oie.int/en/for-the-media/press-releases/detail/article/global-action-needed-now-to-halt-spread-of-deadly-pig-disease/>.

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