



alert



FAO ALERTS EUROPEAN COUNTRIES TO ENHANCE PREPAREDNESS FOR COMBATING PESTE DES PETITS RUMINANTS

24 December 2024

Key facts:

1. **Peste des petits ruminants (PPR)** is a highly contagious viral disease that affects domestic and wild small ruminants. PPR has caused widespread socioeconomic hardship, threatening the livelihoods, food security, and nutritional well-being of millions of small-scale farmers and pastoralists.
2. **PPR causes** a pneumonitis-enteritis syndrome, including oculo-nasal discharge, respiratory distress, coughing, diarrhea, fever, necrotic-stomatitis, halitosis, loss of appetite, increased morbidity and mortality of up to 90 percent.
3. **Recent outbreaks:** Greece and Romania both reported the first incursion of PPR in July 2024. In November 2024, PPR again came back to Bulgaria after the first outbreak in 2018.
4. **Countries are recommended** to strengthen awareness, surveillance, early warning and reporting systems, and good biosecurity practices.

Peste des petits ruminants (PPR) is a highly contagious viral disease affecting both domestic and wild small ruminants. Caused by morbillivirus similar to rinderpest in cattle and measles in humans, it is a multisystem disease with a spectrum of clinical signs in the respiratory and digestive systems. It has a morbidity and mortality of up to 90 percent in a naïve population. While originating in Africa, PPR has spread to the Middle East, Türkiye, and parts of Asia, including China and Mongolia, posing a significant threat to livestock populations. PPR inflicts substantial economic losses globally, with annual estimates ranging from USD 1.4 billion to USD 2.1 billion.

The first PPR outbreaks in Europe were reported in 2000 in Istanbul, Thrace **Türkiye**, and in February 2016 in Georgia on a sheep farm in the Tbilisi region. A second outbreak in **Georgia** was confirmed in March 2024, and in June 2018 in **Bulgaria**, 10 km away from the Turkish border in three herds of sheep and goats in the region of Yambol. On 11 July 2024, in the regional unit of Trikala, Thessaly region, **Greece**, PPR virus was confirmed for the first time by the Greek National Reference Laboratory for PPR in a holding of 264 sheep and goats where this flock first developed signs of illness in late June. Subsequently, it was also reported for the first time in **Romania** on 19 July 2024.

In Greece, initially bluetongue (BT) was suspected due to the clinical signs reported in 50 animals in that flock. These signs included high fever, dyspnea, conjunctivitis, nasal discharge, and necrotic stomatitis with halitosis. Samples were tested for BT virus and were found to be negative. Following the negative results, new samples were taken from the affected flock on 8 July to test for PPR and other similarly presenting diseases and were found to be positive for PPR virus by real-time reverse transcriptase polymerase chain reaction (RT-PCR). In line with the Commission Delegated Regulation (EU) 2020/687 and the National Contingency Plan No. 1747/386028/2023, all measures for the control of the outbreak were implemented, specifically: establishment of protection and surveillance zones, total stamping out of animals in infected flocks, sanitary burial of the carcasses on the spot, control of animal movement within zones, prohibition of the dispatch of live animals and animal products outside of the regional unit, cleaning and disinfection of affected farms, enforcement of biosecurity measures, and surveillance of all sheep and goat flocks within the established zones.

In the first outbreak in Greece, 264 susceptible small ruminants were recorded with 50 deaths. Since this initial outbreak, about 8 000 animals

Useful Links

- ▶ [PPR clinical signs](#) leaflet.
- ▶ WOAHP PPR disease card. https://www.woah.org/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/Disease_cards/PESTE_DES_PETITS_RUMINANTS.pdf
- ▶ Terrestrial Animal Health Code. <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/>
- ▶ Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/>
- ▶ Parida, S., Muniraju, M., Altan, E., Baazizi, R., Raj, G. D., & Mahapatra, M. (2016). Emergence of PPR and its threat to Europe. *Small Ruminant Research*, 142, 16–21. <https://www.sciencedirect.com/science/article/pii/S0921448816300438?via%3Dihub>
- ▶ Commission Implementing Decision (EU) 2024/2204 of 29 August 2024 amending Implementing Decision (EU) 2024/2132 concerning certain emergency measures relating to infection with *peste des petits ruminants* virus in Greece (notified under document C(2024) 6221) (Official Journal of the European Union, 30 August 2024) http://data.europa.eu/eli/dec_impl/2024/2132/oj
- ▶ Commission Implementing Decision (EU) 2024/2203 of 29 August 2024 amending Implementing Decision (EU) 2024/2119 concerning certain emergency measures relating to infection with *peste des petits ruminants* virus in Romania (notified under document C(2024) 6220) (Official Journal of the European Union, 30 August 2024) http://data.europa.eu/eli/dec_impl/2024/2203/oj
- ▶ Plague outbreak in sheep and goats in Kalambaka: Ministry of Rural Development team in the area (e-thessalia.gr, 11 July 2024) https://e-thessalia.gr/kroysma-panolis-se-aigoprovata-stin-kalampaka-stin-periochi-klimakio-toy-ypoyrgeioy-agrotikis-anaptyxis/#google_vignette
- ▶ Greece bans moving goats and sheep as 'goat plague' spreads (Reuters, 29 July 2024) <https://www.reuters.com/world/europe/greece-bans-moving-goats-sheep-goat-plague-spreads-2024-07-29/>
- ▶ Greece tests thousands of animals after 'goat plague' outbreak (Reuters, 22 July 2024) <https://www.reuters.com/world/europe/greece-tests-thousands-animals-after-goat-plague-outbreak-2024-07-22/>
- ▶ Greece is tackling a blistering heatwave – a goat plague is the last thing it needs (Independent tv, August 2, 2024) <https://www.independent.co.uk/news/world/europe/greece-goat-plague-heat-fires-b2589461.html>
- ▶ EU fights outbreak of sheep and goat plague (Politico, August 5, 2024) <https://www.politico.eu/article/europe-sheep-goat-plague-outbreak-ppr-romania-bulgaria-greece-feta/>

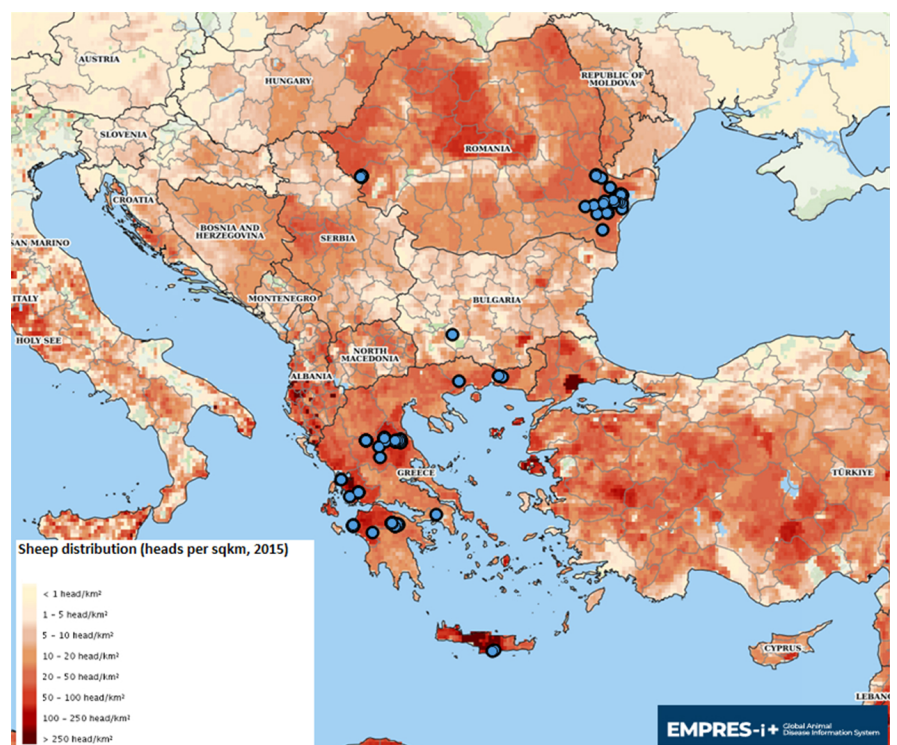
have been culled, and more than 200 000 tested for PPR. As of 13 September 2024, 71 outbreaks have been confirmed in the regions of **Attica, Crete, Ionian Islands, Macedonia, Mesino, Central Greece, Thessaly West Greece, Peloponnese, and Thrace.**

In Romania, the first PPR outbreak was confirmed in a sheep flock in Baia, the region of Tulcea. The European Commission was informed, and in accordance with the Delegated Regulations (EU) 2020/678, a restricted zone comprising of a protection and surveillance zone was established. Since then, an additional 66 outbreaks have been confirmed as of 9 September 2024 involving over 236 023 sheep and goats. Genotype sequencing of isolates from both Greece and Romania has determined that they are closely related to Lineage IV Georgia 2016. Epidemiological investigations are ongoing to understand the origin of the infection in both countries.

From a population of over 11 million sheep and goats (FAOSTAT) in Romania, 14 899 were recorded as infected, and 22 as having died during the first outbreak. From 19 July to 9 September 2024, 67 outbreaks have occurred in the regions of **Constanța, Ialomița, Tulcea, and Timiș**, with threats to neighbouring **Bulgaria, the Balkan nations, Hungary, and Moldova.**

On 25 November 2024, in Bulgaria an outbreak was detected in five establishments, which are one epidemiological unit as they belong to one family and have common keepers and pasture. Details of the source of infection will be included in follow-up reports after investigations have been completed. Of 1 769 sheep, 25 cases were detected, and there were four deaths. All necessary control measures are being applied.

Figure 1. PPR outbreaks in small ruminants in Europe, from 1 January to 11 December 2024, with sheep density layer adjusted at FAOSTAT 2015 (GLW4*)



Source: UN Geospatial, 2020. Map of the World. United Nations. Cited December 2024. www.un.org/geospatial/file/3420/download?token=TUP4DmF Modified with GLW 4* data and Emergency Prevention System Global Animal Disease Information System (EMPRES-i) World Organisation for Animal Health (WOAH), and National Authorities data, 2024.

* Gridded Livestock of the World - 2015 (GLW 4), Gilbert, M., Nicolas, G., Cinardi, G. *et al.* Global distribution data for cattle, buffaloes, horses, sheep, goats, pigs, chickens and ducks in 2010. *Sci Data* 5, 180227 (2018). <https://www.nature.com/articles/sdata2018227> and also: <https://www.fao.org/livestock-systems/global-distributions/en/>.

Disclaimer: The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Contacts

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WHAT FAO IS DOING

FAO and World Organization for Animal Health (WOAH) under the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) and the European Commission for the Control of Foot-and-Mouth Disease (EuFMD) are working closely with the European Union Commission Directorate-General for Health and Food Safety (DG-SANTE) to increase awareness on PPR recognition and diagnosis in Member Nations, especially amongst farmers and animal health workers, through webinars and communication materials. FAO is also providing technical assistance to individual countries on request.

Recommendations for European countries:

- Public awareness: Educate livestock owners, farmers, animal health workers, and veterinarians on the early detection of PPR, syndromic and participatory disease surveillance, appropriate sampling techniques for confirmatory diagnosis, disease reporting, and prevention and control measures.
- Maintain good communication and reporting systems: Establish effective communication channels between government agencies, livestock owners, and the public to facilitate information sharing. Encourage early reporting of suspected cases to veterinary authorities.
- Robust surveillance systems: Establish and maintain effective surveillance and monitoring systems for early detection of PPR. This includes active and passive surveillance, sentinel surveillance, and laboratory diagnostic capacity according to WOAH standards.
- Animal movement control: Implement measures to control the movement of small ruminants within and between regions to minimize the risk of disease spread. Enhance border control measures to prevent illegal entry of small ruminants and their products.
- Biosecurity measures: Implement strict biosecurity measures on farms and premises to prevent the introduction and spread of PPR. This includes isolation of new animals, disinfection, and rodent control.
- Good husbandry practices: Promote good husbandry practices, such as regular cleaning and disinfection of animal housing, proper feeding and watering, and adequate ventilation.
- Management and monitoring of episystems: Identify animal populations (within countries and extending across borders) that are capable of maintaining PPR virus transmission over prolonged periods with the aim to determine when, where, and how actions should be taken to interrupt virus circulation in these episystems.

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FAO PPR Secretariat: <https://www.fao.org/ppr/background/secretariat/en/>

WOAH: <https://wahis.woah.org/#/in-event/6082/dashboard>



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