Publication

Peste des petit ruminants (PPR)

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What is Peste des petit ruminants (PPR)?

Peste des petits ruminants (PPR), also known as sheep and goat plague, is a highly contagious disease of small ruminants caused by the PPR virus. Once introduced, the virus can infect up to 100 percent of a herd, and the disease can result in death in 30 to 100 percent of infected animals.

Outbreaks of the disease have a significant economic impact on regions reliant on sheep and goat farming. PPR virus is closely related to rinderpest virus, which has been eradicated globally but caused widespread deaths in cattle in the past. The PPR virus does not affect humans.

PPR has never been reported in Ireland. However, it is a notifiable disease, which means that any suspected case of PPR must be reported to the Department of Agriculture, Food and the Marine without delay.

What animals are affected by PPR?

The PPR virus affects goats, sheep and other small ruminants.

Can PPR affect humans?

PPR does not infect humans and does not pose a risk to food safety.

Where is PPR present in the world?

Since the first report of PPR on the Ivory Coast in West Africa in 1942, PPR has spread to previously unaffected areas. PPR is currently endemic (meaning that it is known to be consistently circulating in an area) in many countries in Africa, the Middle East and Asia. In addition to the serious animal health and welfare issues, this disease has a devastating impact on farming livelihoods, food security and employment opportunities in affected countries.

Outbreaks have been reported recently near the EU in North Africa, Turkey and Georgia. The only outbreak of PPR in the EU occurred in Bulgaria in 2018. It has never been reported in Ireland.

How does an animal become infected with PPR virus?

Peste des petits ruminants is mainly spread through close contact between infected animals. The virus is shed in all secretions and excretions of infected animals, e.g., nasal secretions, saliva and faeces. Inhalation of the virus (aerosol transmission) is also thought to be an important route of transmission. Contaminated materials and surfaces, such as bedding, feed, pasture and water troughs, can also be sources of infection.

How would I know if my animal has PPR?

Clinical signs of PPR include fever, depression, nasal discharge, red and discharging eyes, mouth ulcers, severe diarrhoea and respiratory signs (coughing and rapid breathing). Other diseases have similar clinical signs; therefore, laboratory diagnosis is required to confirm presence of PPR.

Images of the clinical signs of PPR may be found here (https://www.fao.org/3/x1703e/x1703e00.htm#Sources) : FAO (1998) Recognising peste des petits ruminants. A field manual. Rome, Italy: Food and Agriculture Organisation (FAO).

What should I do if I suspect my animal has PPR?

If you suspect PPR in one of your animals you must report it immediately to the Department of Agriculture, Food and the Marine. Limiting the scale of a potential outbreak relies heavily on early detection of the disease.

Contact your local Regional Veterinary Office (https://www.gov.ie/en/organisation-information/9dc27-contact-us/?referrer=http://www.agriculture.gov.ie/contact/#regional-offices) RVO) or the National Disease Emergency Hotline on 01 492 8026 (outside of office hours) to report a suspect case.

If you are reporting a suspicion of disease, do not allow people, animals, vehicles, carcases or anything else associated with animals off the farm until further advice is given to you by the Department of Agriculture, Food and the Marine.

How could PPR enter Ireland?

The virus does not survive for long in the environment unless in chilled or frozen tissues. Therefore, importation of infected sheep and goats is the most likely means of introducing the virus into Ireland.

The illegal importation of infected animal products could also potentially introduce the virus into Ireland. Contaminated vehicles or equipment also pose a risk, e.g., when vehicles carrying livestock return to the EU after the delivery of animals in infected areas or farms and where no biosecurity measures are applied. Nevertheless, strict biosecurity measures must be adopted by anyone returning from areas affected by PPR.

How can we keep Ireland free from PPR?

Strict rules are in place to help prevent PPR virus from being imported into Ireland. Areas where PPR is present are not permitted to export live animals and animal products to the EU. Live animals and animal products from third countries entering Ireland must comply with stringent import control requirements and must undergo inspection in a designated Border Control Post supervised by DAFM.

What is biosecurity?

Biosecurity is the combination of all measures, whether physical or through management, taken to reduce the risk of introduction and spread of diseases. Biosecurity is the basis of all disease control programs, as improved biosecurity will result in lower rates of disease overall. There is no 'one size fits all' approach to biosecurity as the circumstances of each farm or premises are unique. Therefore, biosecurity measures must be tailored to each individual setting.

Biosecurity is about preventing disease from getting into a premises but also in the event of an outbreak, minimising spread within a premises and ensuring that disease doesn't get out to infect other animals.

Biosecurity does not have to be expensive. Small changes can have a large impact, e.g., quarantine of recently purchased animals away from the rest of the flock for at least four weeks, disinfection points for boots at the entrance/exits to all sheep and goat housing, handwashing.

What can I do to improve biosecurity?

The best protection for your flock against sheep and goat diseases, is a strong biosecurity policy. Good biosecurity improves overall herd health and productivity by helping to keep out disease. In the event of an outbreak, it also limits the spread of disease within and off your premises.

PDF

Biosecurity Advice for Farmers Importing Livestock

Download (https://assets.gov.ie/261484/8446d4d4-53cd-4d63-9495-2f2019a9ea87.pdf)
View (/pdf/?file=https://assets.gov.ie/261484/8446d4d4-53cd-4d63-9495-2f2019a9ea87.pdf#page=null)

What would happen if an outbreak of PPR were to occur in Ireland?

In the event of an outbreak of PPR in Ireland, control measures are introduced to eradicate the disease. Restriction zones are established around the location of an outbreak. These zones are known as protection and surveillance zones and are generally 3km and 10km in diameter, respectively. Monitoring and sampling of animals on farms within these zones is carried out as well as restrictions on any activities that may spread the disease to other animals or farms. Susceptible animals on a farm with a confirmed case of PPR are culled. Susceptible animals at high risk of infection on other farms may also be culled. Epidemiological investigations are performed by DAFM to determine the spread of PPR. Other control measures, including restrictions on the movement of animal products and enhanced biosecurity measures are introduced. Limitations on the export from Ireland of food from susceptible species may be applied by other countries.

How can I protect my animals during an outbreak of PPR?

In the event of an outbreak of PPR, restrictions on the movement of sheep and goats would be introduced. Farmers may be required to implement enhanced biosecurity measures to prevent entry of the virus to their farms.

Useful websites

World Organisation for Animal Health: Peste des petits ruminants Technical Disease Card (https://www.woah.org/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/Disease_cards/PESTE_DES_PETITS_RUMINANTS.p

FAO (1998) Recognising peste des petits ruminants. A field manual. Rome, Italy: Food and Agriculture Organisation (FAO) (https://www.fao.org/3/x1703e/x1703e00.htm#Foreward)

Center for Food Security & Public Health at Iowa State University: Peste des petits ruminants (https://www.cfsph.iastate.edu/Factsheets/pdfs/peste_des_petits_ruminants.pdf)

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