

# Peste des petits ruminants (PPR)



## What is Peste des petits ruminants?

Peste des petits ruminants (PPR), also known as ‘sheep and goat plague’, is a viral disease of goats and sheep characterised by fever, sores in the mouth, diarrhoea, pneumonia, and often death.

It is caused by a morbillivirus, in the family of *paramyxoviruses*, that is related to rinderpest, measles and canine distemper. Cattle and several wild ruminants have been infected (most often experimentally), but goats and sheep are the usual targets in natural infection.

An outbreak in a zoo in United Arab Emirates in 1987 affected gazelles, ibexes, and gemsboks, and was the first outbreak in species other than sheep and goats.

PPR is a disease listed in the OIE *Terrestrial Animal Health Code*, and countries are obligated to report the disease to the OIE.



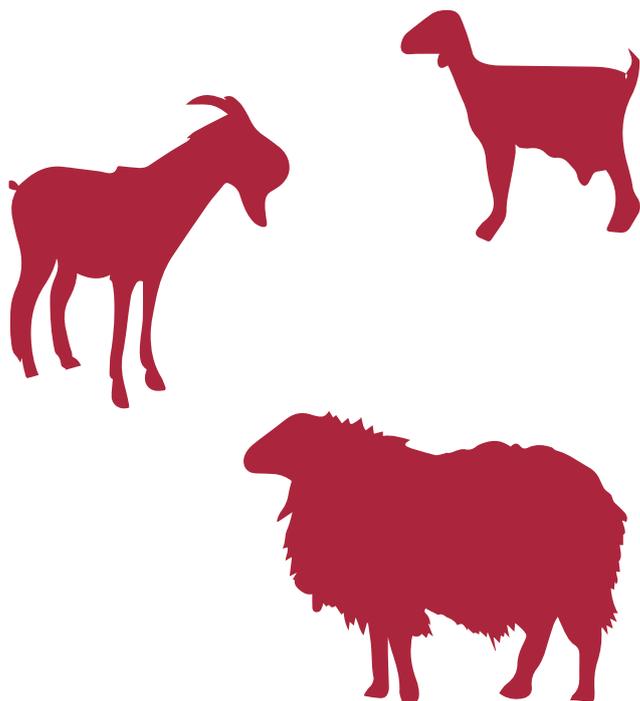
## Where is the disease found?

The disease appeared for the first time in Western Africa, in the 40s. Since then, it has spread northwards and eastwards across Africa, into the near and Middle East and has reached into Southern and Eastern Asia. China reported the disease first in 2007. The disease entered European territory in 2016, when Georgia reported cases of PPR to the OIE.

## How is the disease transmitted and spread?

The virus is secreted in tears, saliva, nasal discharge, secretions from coughing, and in the faeces of infected animals. Therefore, close contact between animals, especially through inhalation of fine droplets that are released into the air when affected animals cough and sneeze will spread the disease. Water, feed troughs, and bedding can also be contaminated with secretions and become additional sources of infection; however the virus does not survive for a long time outside the body of a host animal.

Since animals excrete the virus before showing signs of the disease, it can spread by movement of infected animals.





## What are the clinical signs of the disease?

After an incubation period of 3–6 days, there is a sudden onset of fever, severe depression, loss of appetite, and clear nasal discharge. The nasal discharge becomes thicker and yellow, often becoming so profuse that it forms a crust that blocks the nostrils causing respiratory distress. The eyes may also become affected, causing eyelids to mat together with discharge. Tissues in the mouth can swell and ulcers form on the lower gums, dental pad, hard palate, cheeks and tongue. Severe diarrhoea develops in some animals, resulting in dehydration and weight loss. Pneumonia is common in later stages. Pregnant animals may abort. The prognosis of PPR is poor and death can occur within five to ten days of the onset of fever.

Young animals are most severely affected and goats more so than sheep. In its most severe form (peracute) animals are found dead. However, the disease can be mild or unapparent and circulate in a country causing little or no illness until susceptible goats or sheep are exposed.

## How is the disease diagnosed?

The disease may be suspected when there is sudden onset of fever, nasal discharge and diarrhoea in sheep and goats, while cattle remain unaffected. Because the disease could resemble a great many common diseases including foot and mouth disease and bluetongue, laboratory confirmation is important. Identification of the virus or serological testing is performed as outlined in the *OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*.

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## What is being done to prevent or control the disease at the international and local levels?

PPR is one of the six diseases for which the OIE officially recognises a disease free status and endorses a national official control programme. In 2016, 53 OIE Member Countries and 1 zone have been recognised by the OIE as being free from PPR.

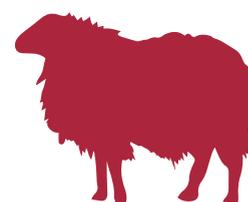
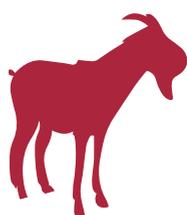
The OIE and the Food and Agriculture Organization of the United Nations (FAO) have jointly developed the Global Strategy for the Control and Eradication of PPR. This strategy was endorsed by nations attending the International Conference for control and eradication of PPR, in Abidjan (Côte d'Ivoire) in 2015 and confirmed by the adoption of the Resolution N°25 at the 84th General Session of the World Assembly of OIE Delegates. The strategy anticipates global eradication of PPR by 2030.

When the disease appears in a previously unaffected area, the standard disease control measures consisting of quarantine, movement control, sanitary slaughter, and cleaning and disinfection are applied. The virus is susceptible to most disinfectants.

Effective PPR vaccines are available and are used where the disease is established. The vaccine provides good immunity. Because of the close relationship of PPR virus to rinderpest virus, the latter had been used as a vaccine to control PPR in the past. However, since rinderpest was eradicated in 2011, this practice is no longer allowed. Currently only PPR specific vaccines are in use.

## What is the public health risk associated with this disease?

Humans are not affected by the virus.



# More Information?

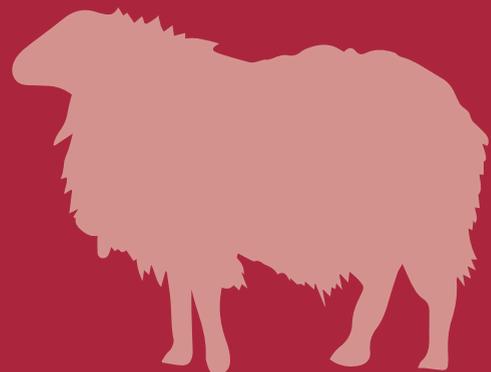
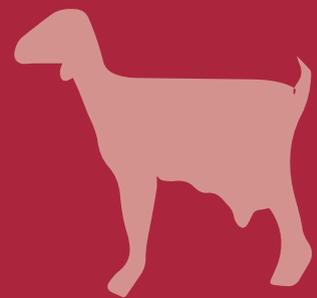
## References:

1. OIE *Terrestrial Animal Health Code* (Chapter 14.7.)  
[www.oie.int/terrestrialcode](http://www.oie.int/terrestrialcode)
2. OIE *Manual of Diagnostic Tests & Vaccines for Terrestrial Animals* (Chapter 2.7.10.)  
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3. OIE web portal on PPR  
[www.oie.int/PPR](http://www.oie.int/PPR)
4. Global Strategy for the Control and Eradication of PPR  
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[www.oie.int/referencelab](http://www.oie.int/referencelab)

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## Key Facts

- PPR was first reported in Côte d'Ivoire in 1942, where it was called Kata (Pidgin for Catarrh).
- In 2007, China reported PPR for the first time.
- In 2008, an outbreak in Morocco was the first time the disease appeared in North Africa.
- In 2015, the OIE/FAO Global Strategy for the Control and Eradication of PPR was endorsed, with the vision of eradicating the disease by 2030.
- In 2016, PPR entered Europe, after reported outbreaks in Georgia.

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