



Livestock Notifiable Disease

Factsheets

Peste des petits ruminants

If you suspect signs of any notifiable disease, you must immediately notify a Defra Divisional Veterinary Manager.

Definition

This disease, also known as Goat Plague, is one of the EU Specified Diseases which has never occurred in this country. It is a rinderpest-like contagion of goats and sheep characterised by erosive stomatitis, enteritis, pneumonia and death. Economically it is the most important animal disease in southern equatorial Africa, being a major constraint on the availability of animal protein for human consumption. It is an OIE class A disease, affecting sheep and goats.

History and spread of the disease

The causative virus was first thought to be an aberrant strain of rinderpest virus that had lost its ability to infect cattle. Later molecular studies showed that it was distinct from, but closely related to, rinderpest virus.

Clinical signs

These range from sub-acute in sheep to fulminating fatal illness in goats, although in apparent infections occur in both species especially in nomadic animals that are endemically exposed. The clinical evolution imitates that of rinderpest but the changes are faster. After an incubation period of 2 to 6 days affected animals suddenly develop high fever and nasal catarrh but otherwise appear normal. Within hours they are severely depressed, sneeze frequently and lick their lips constantly.

Mucosal erosions appear, stimulating profuse salivation and shooting diarrhoea. Nasal and lachrymal discharges become mucopurulent and encrust, blocking the nostrils and cementing the eyelid together. Pneumonia adds to the distress of the animals. Both the breath and fluid faeces are disgustingly fetid. Peracute and most acute infections are fatal, death occurring 4 to 10 days after the onset of illness. Convalescence in survivors is prolonged and often complicated by activated latent infections or superinfections such as trypanosomiasis dermatophilosis and orf (a virus disease affecting primarily the mouth, udder and coronet).

Diagnosis

The clinical signs and post-mortem lesions are highly suggestive in acute and peracute cases. Subacute cases, however, are difficult to diagnose in the absence of frank clinical signs in the other members of the flock.

Confirmation is readily achieved by detecting antigen in lymph nodes or tonsils collected from newly dead animals.

Differentiation from Rinderpest requires isolation of the virus in cell cultures. Goat Plague has also been confused with Bluetongue, heartwater, caprine pleuropneumonia and Nairobi sheep disease.

Epidemiology and transmission

This disease cycles endemically in the nomadic herds and flocks that graze in the sub-Saharan sahel and transhumance annually introduces the virus into immunological naïve herds and flocks south of the sahel with disastrous results. The virus has also been exported to the Middle East with purchases of goats and sheep from Africa, causing severe losses in the herds and flocks of the importing countries. Until recently the known natural hosts were restricted to goats and sheep but an epidemic in the Al Ain Zoo in the United Arab Emirates extended the natural host range to include smaller species of wild ungulates. Cattle are refractory to infection.

Sick goats and sheep generate aerosols containing infective droplets. Successful transmission therefore requires close contact between sick and healthy animals. Fomites do not play a role in transmission of the virus.

Great Britain Legislation

Peste des petits ruminants is included in the Specified Diseases (Notification and Slaughter) Order 1992 and the Specified Diseases (Notification) Order 1996, making suspicion of this disease compulsorily notifiable.

European Union Legislation

Council Directive 82/894 made this disease compulsorily notifiable throughout the European Community.

Peste des petits ruminants is covered by Directive 92/119. Affected animals would have to be slaughtered, and a 3km protection zone and 10 kilometre surveillance zone set up around the infected premises.

After cleansing and disinfection the restrictions would remain in force for at least 21 days, this being the incubation period of this disease (the same as for Rinderpest).

Pictures of the disease



Purulent eye and nose discharges



Early mouth lesions showing areas of dead cells



Swollen, eroded lips

Information current of June 16, 2005