



## PESTE DES PETITS RUMINANTS

An emerging disease in wildlife

## PESTE DES PETITS RUMINANTS (PPR) is

*an acute, contagious and frequently fatal disease of goats and sheep characterised by fever, ocular and nasal discharges, oral erosions, diarrhoea and **pneumonia**.*

*Cause: a morbillivirus*

*The Global Distribution of Peste des Petits Ruminants (PPR)*



*For some countries only serological evidence of infection has been recorded*

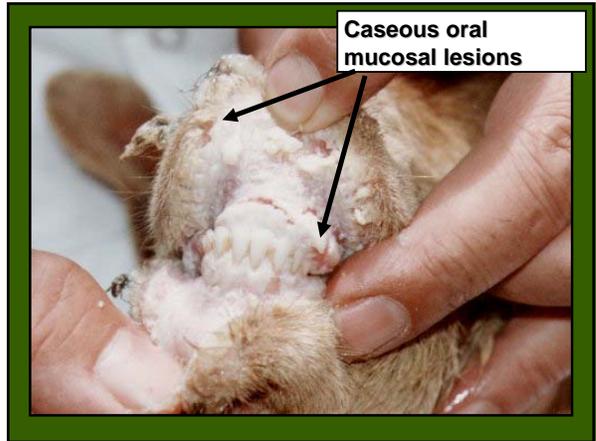
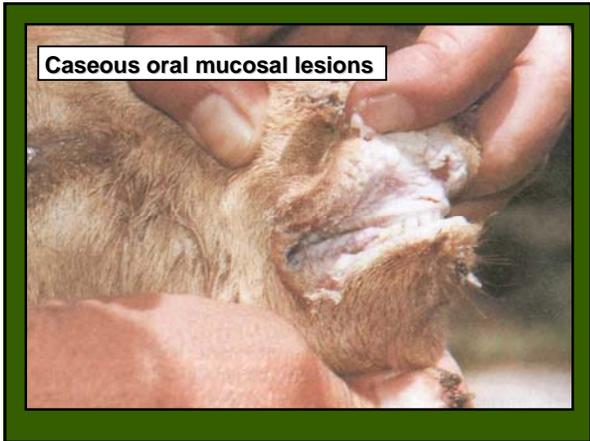
## CLINICAL SIGNS

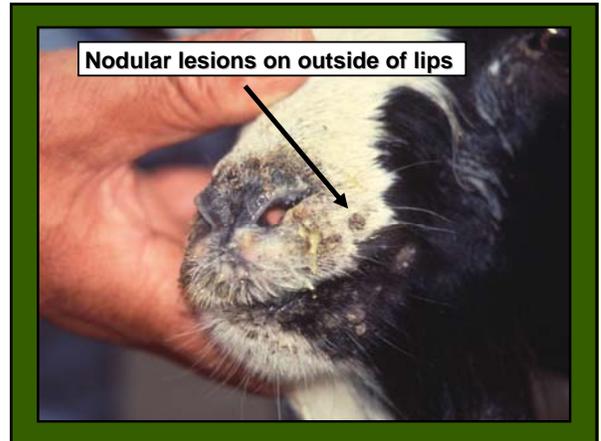
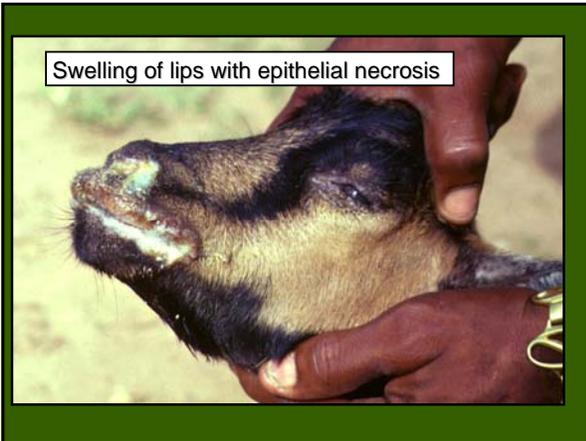
**Ocular and nasal discharge**



**Conjunctivitis**



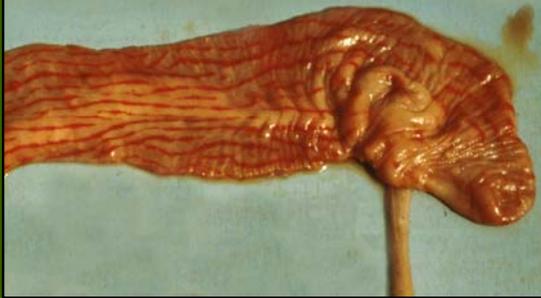




**GROSS PATHOLOGY**



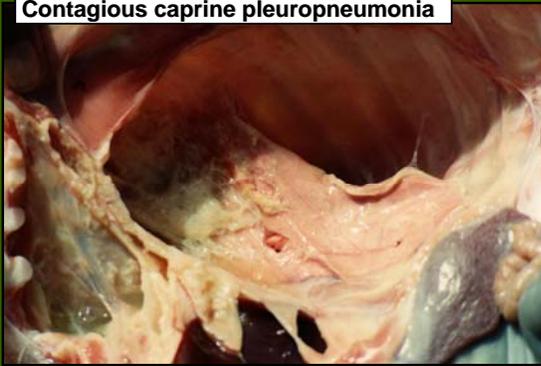
'Zebra striping' in caecum



### Differential diagnosis

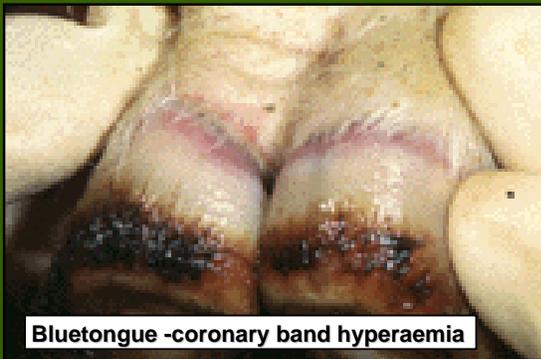
*rinderpest*  
*pneumonic pasteurellosis*  
*contagious caprine pleuropneumonia*  
*capripox - sheep and goat pox*  
*contagious ecthyma - 'orf'*  
*bluetongue*  
*foot-and-mouth disease*

Contagious caprine pleuropneumonia



Bluetongue

Bluetongue -coronary band hyperaemia



### LABORATORY CONFIRMATION

## DIAGNOSTIC TESTS

- DETECTION OF LIVE VIRUS
  - Animal inoculation
  - Virus isolation in culture
- DETECTION OF VIRUS ANTIGEN
  - Agar gel immunodiffusion test
  - Immunocapture ELISA
  - Immunofluorescent staining
  - Immunohistochemical staining

- DETECTION OF VIRAL GENOME
  - Reverse transcription - polymerase chain reaction [RT-PCR]
  - Nucleotide sequencing
- DETECTION OF ANTIBODY
  - Virus neutralisation test
  - Competitive ELISA

## SAMPLING

### Live animal

- Ocular swabs
- Lymph node aspirates [prescapular]
- Gum debris
- Buffy coat [uncoagulated blood]
- Serum

ACUTE FEBRILE CASES  
*KEEP SAMPLES ON ICE*

### Post-Mortem sample material

- Mesenteric lymph nodes *Keep samples on ice*
- Spleen
- Tonsil
- Third eyelid *In 10 per cent formalin*
- Mucosa

## EPIDEMIOLOGICAL FEATURES

### TRANSMISSION

Transmission is essentially by direct contact - aerosols

Very little spread over distance without animal movement

meat

fomites

food chain is of no significance

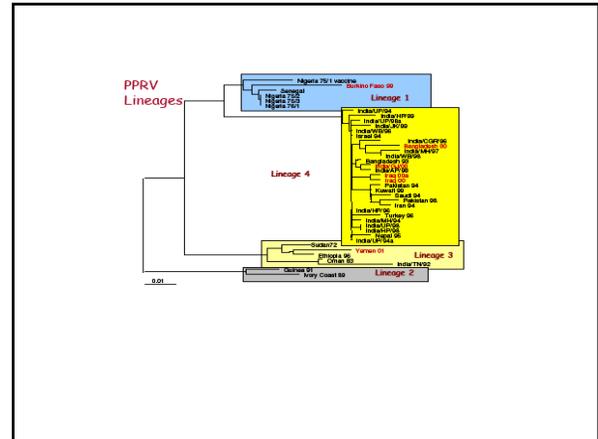
## Host range is limited

Sheep and goats

Wildlife

## Sterile immunity

No carrier state



## CONTROL

PROPHYLAXIS in endemic areas

HOMOLOGOUS VACCINE (attenuated)

STAMPING OUT

FOCAL VACCINATION WITH MOVEMENT CONTROL