

Contagious Ecthyma (Soremouth, Orf)

DISEASE IN ANIMALS

Contagious ecthyma, also called soremouth in animals, is a highly contagious zoonotic disease caused by the orf virus, a member of the family Poxviridae. Most cases occur in sheep and goats; however all wild and domestic ruminants are potentially susceptible.

Reporting: Animal cases of soremouth are not required to be reported to the Ohio Department of Agriculture (ODA) or USDA APHIS Veterinary Services. Cases that may be associated with human illness or that occur in public settings, such as petting zoos, are encouraged to be reported to the [local health department](#) (LHD).

Transmission: Soremouth is transmitted to susceptible animals by contact with infected animals. Minor cuts and abrasions, like those acquired during foraging, are adequate for virus to enter through the skin. Live virus can be found in scabs and lesions from infected animals and on fomites, such as equipment and fences. The virus can survive on the wool and hide of recovered animals or wool or hide in contact with infected animals for a month or more. In protected environments, the virus can live for years. Contagious ecthyma vaccines contain live virus and can infect humans, as can recently vaccinated animals.

Clinical signs: The incubation period is two to three days. Early signs include papules and pustules on the lips, nose, ears and sometimes feet. Lesions also occur inside the mouth and can lead to anorexia. Nursing lambs and kids can transmit the virus when nursing resulting in lesions on teats and udders. Lesions eventually thicken and ulcerate with scabs forming over areas of granulation tissue. Uncomplicated infections usually resolve in a few weeks, but secondary bacterial infections may prolong healing. Severe infections rarely occur but have been reported as chronic pneumonia, arthritis, and severe multifocal proliferative dermatitis.

When introduced to naive groups of animals, outbreaks often affect 80% or more, mortality is low and typically involves young animals who refuse to nurse.

Diagnostics:

- Most diagnoses are based on clinical presentation.
- PCR and electron microscopy of the scabs can be used as confirmatory method.
- Serology and virus isolation are uncommonly used.

Case classification:

- Suspected: a clinical case with signs consistent with Contagious Ecthyma.
- Probable: a clinically suspect case with laboratory evidence from a screening or unvalidated test.
- Confirmed: a case that meets confirmatory testing criteria determined by a state or federal diagnostic laboratory.

DISEASE IN HUMANS

Reporting: An outbreak involving multiple human infections associated with animals is required to be reported to the LHD. Individual human cases of Orf are not required to be reported. However, a single human case linked with animals from a commercial source or exhibition is encouraged to be voluntarily reported to the LHD, so that additional cases may be prevented.

Human symptoms: The incubation period is usually three to seven days, and Orf usually manifests as one or occasionally a few lesions on a finger, hand, or other exposed part of the body. Initially they appear as firm red

to blue papules and progresses to an ulcerated nodule. The nodule bleeds easily and often weeps fluid despite developing a scab. This disease is self-limiting and healing spontaneously occurs in three to six weeks.

Personal protection: Abraded or cut skin should be covered when working with animals and their hides. Gloves (rubber or latex) should be worn when handling an animal's mouth and when vaccinating animals for sore mouth. Gloves and protective outer garments should also be considered when working with susceptible ruminants, especially when shearing or using other cutting tools. If contact is suspected, exposed skin should be washed with soap and water. Immunosuppressed persons should avoid contact with infected animals.

FOR MORE INFORMATION

Disease in Animals

[Iowa State University Center for Food Security and Public Health Animal Disease Factsheets](#)
[Ohio Department of Agriculture, Animal Disease Diagnostic Laboratory](#)

Disease in Humans

[CDC--Soremouth Orf](#)