
Scrapie

Scrapie is a slow, transmissible disease affecting the central nervous system (CNS) of sheep and goats. It is usually fatal. The exact cause is not known; however, it is thought to be caused by a virus-like substance. Prion and virino are two terms used to describe this agent.

Affected animals rub or scrape themselves vigorously to relieve the intense itching. Hence, the word scrapie. Most cases of scrapie are in Suffolk and Cheviot breeds, but it also shows up in other breeds. It may also be spread orally by eating contaminated feedstuff. More research is needed.

Transmission: Scrapie can be transmitted from sheep to sheep by direct contact, which is called lateral transmission. Vertical transmission (from the ewe to the developing fetus) is unlikely. The most common time of transmission from the ewe to the lamb is during the first six to nine months of life. It is unlikely that the scrapie virus is transmitted through the ram's semen. Lateral transmission may occur orally or nasally. Vacated contaminated pastures may remain a source of infection for three years or longer. The scrapie agent is very resistant to heat and disinfectants. Scrapie is not a true genetically transmissible disease, but the susceptibility to scrapie may be under genetic influence.

Incubation Period: The incubation period is from two to five years or more. Many exposed and infected animals may die of natural causes before symptoms appear. This makes it difficult to determine the amount of scrapie present. Scrapie is most often seen in animals over two years of age. A gene has been identified that determines whether it will be a short (less than 24 months) or a long (more than 24 months) incubation period.

Clinical Symptoms

Early symptoms:

- Animal appears anxious and uneasy. Becomes excitable and is easily disturbed by handling, moving or feeding.
- May develop tremors of the head and neck, which may disappear when the animal calms down.
- Affected animals isolate themselves from the flock or may be excluded by the flock. May have uncoordinated movement of the hind leg causing a hopping gait. May lose weight, but appetite remains good. Wool appears dry and lackluster.

Advanced stages:

- Animal rubs or scrapes its back, sides and rump on anything handy, such as, trees, fence or equipment in an attempt to relieve the agonizing itching of the skin. May use hind legs to scratch sides, abdomen and head with hind feet. Bites skin over its sides and rump, which may cause the wool to be broken and /or pulled out by its roots leaving a large denuded area.
- A dermatitis (skin infection) is usually absent, except that which is due to secondary bacterial infection. This is caused by the intense, hard rubbing against objects. Incoordination of movement causes high stepping, stumbling and falling.
- Violent shaking of the tail and rump. Pregnant animals may abort. Grinding of teeth is common. Ears droop. Just before death, the animal lies on its side and has paddling movement of legs.

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- Goats are more likely to use their hind legs and horns to scratch themselves rather than using objects.
 - After the first symptoms are noticed, the animal may survive from three weeks to six months or longer.

Diagnosis:

- History of losing weight while appetite remains good. Wool being pulled out on side, back and rump. Intense itching where no external parasites can be found.
- A "scratch reflex" may be helpful in determining a tentative diagnosis in a suspect animal. The "scratch reflex" is elicited by gently rubbing the animal's back, rump or thigh. This will cause a nibbling motion of the lips and licking movement of the tongue as well as raising, lowering and turning of the head. The animal's body will be extended during this "scratch reflex."
- Any suspect animal that dies should go to a diagnostic laboratory for a histopathological examination of the brain.

- At the present time, no blood test is available to determine if an animal has been exposed or is infected with scrapie, since scrapie does not stimulate the immune system.

Treatment: None

Vaccine: None

Reportable Disease: Yes, to Area Federal Veterinarian.

Rendering Companies Policy — BSE

In late 1989, rendering companies refused to pick up dead sheep and goat carcasses or offal. This was the result of English researchers who suspected cattle dying from BSE (Bovine Spongiform encephalopathy) after being fed feedstuff from scrapie-infected sheep. BSE and scrapie are closely related, but final proof is still lacking. Until then, it is doubtful if there will be any major changes in their current policy. Bury all dead sheep and goats.

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