

Neurologic Listeriosis in Sheep and Goats

Dr. Jerusha (Jessie) Lay, Assistant Professor of Animal Health

What Causes It?

Listeriosis is a common neurological disease in goats caused by the bacteria *Listeria monocytogenes*. Although it can be seen throughout the year, it is more commonly seen in the winter and spring months. The bacteria is extremely resistant and may grow in a wide range of temperatures. This is important to remember as freezing temps may not kill or prevent growth as it does in other bacteria. In a lab setting 'cold enrichment' actually promotes the growth of this organism. That's why it's not surprising that we see it in our colder weather months.

While listeria may also cause abortions or septic infections, in this article we will focus on the neurologic form.

Where Does It Come From?

Two common routes of transmission:

1. The most notable source, especially in cattle is from decaying vegetation. This may be in the form of round bales of hay that have begun to rot, silage not properly fermented, and feed bunks that are not cleaned regularly.
2. Healthy animals may have listeria in their GI tract. As it is shed through the feces and ingested by another animal, this may also be the cause for disease. This is considered fecal oral and may present if feed bunks or water troughs contain feces. If the animal is stressed or malnourished, it may increase incidence.



What are The Symptoms of Neurologic Lysteria?

Listeriosis has a much faster progression in small ruminants than it does in cattle. In severe cases death may occur 24-48 hours after the initial symptoms. At first animals are depressed and possibly off balance walking. Next is generally a unilateral facial paralysis (drooping of one side of the face). This continues to progress, animals often lose ability to swallow, and begin walking/falling in circles. The animals soon thereafter become unable to stand and if treatment is not successful die.

Is it Treatable?

If Listeriosis is caught early it may be treated aggressively with antibiotics and anti inflammatories. Once animal is recumbent the prognosis is very poor. Talk to your local vet about choices and doses of antibiotic therapy.

How Do I Prevent It?

Supply quality feed sources of both hay and grain. Feed should be stored properly and not fed if wet or decaying. Square bales are usually preferred in goats as they are fed more frequently and less waste left to rot. Also when possible keeping hay protected from weather, by a cover over the hay feeder or feeding inside a shelter.

If feed or water troughs contain fecal material they should be cleaned thoroughly. Wet grain that is spoiling in edges of trough may also be a source for listeria. It is best to clean troughs daily.

Prevent stress and supply adequate nutrition, especially during the winter months. The weather itself may be a stressor to the animals. Stress or malnutrition, both weaken the animals immune system and increase the incidence of a multitude of diseases.



References

<https://www.merckvetmanual.com/generalized-conditions/listeriosis/overview-of-listeriosis>

<https://pdfs.semanticscholar.org/89e0/16f62980551adb95affbe55db06d9929617.pdf>

<https://content.ces.ncsu.edu/listeriosis-in-your-herd>