Listeriosis

-- AN INFECTIOUS DISEASE OF MAMMALS AND BIRDS

F. M. Bolin
Associate Professor of Veterinary Science

D. F. Eveleth
Veterinarian
North Dakota Agricultural Experiment Station
LISTERIOSIS

Listeriosis is an infectious disease of mammals and birds and is produced by a specific organism Listeria monocytogenes.

There are three distinct manifestations of the disease:

1. Central nervous system involvement. The animals go in circles or stand with the head pressed against some stationary object such as a feed bunk or post. Later these animals lie on their side and show motions as if they were running. Death usually results in 48 to 72 hours after the animal goes down.

2. In some outbreaks of listeriosis the outstanding manifestation is abortion. Abortion of cows and ewes with listeriosis is characterized by lack of other symptoms. The animals show no sign of illness other than abortion.

3. Septicemic listeriosis, this type of the disease is characterized by sudden deaths without a previous history of illness.

The diagnosis of listeriosis is best made by the laboratory culturing and identifying the listeria organism.

The nervous form of the disease often is confused with enterotoxemia which is caused by an entirely different organism.

Abortions may be caused by viruses, by vibrios, trichomonads, leptospirosis, the brucella organism as well as fungi. When abortions occur in a sheep flock or a cattle herd a laboratory diagnosis is necessary to establish the best method of control.

Medication for listeriosis has been of little value. In cases where the nervous system is involved there is usually so much tissue damage that medication is too late to be of benefit.

In cases of the septicemic form and in the cases of abortion, there are no preliminary symptoms so treatment cannot be started.

Listeriosis tends to occur year after year on some farms. The reservoir of infection has not been determined, but it is known that there are carriers of the disease that show no symptoms.

The most effective control of listeriosis is to vaccinate all animals with a bacterin prepared from Listeria monocytogenes cultures. This bacterin can be obtained by your veterinarian.

Predisposing Factors in Listeriosis

Listeria organisms have been isolated from animals and birds that showed no symptoms of the disease. The same organism has been cultured from feeds.

Listeriosis outbreaks often have followed sudden changes in management practices. Lack of water or feed, sudden changes of feed and changes in the weather often have been associated with outbreaks of listeriosis.

People are susceptible to listeriosis. Sometimes there are nervous symptoms, while in other cases abortion or early death of the infant is the usual course of the disease. People handling livestock or poultry should use proper safeguards to prevent becoming infected.