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Enterotoxemia of Suckling Lambs

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Enterotoxemia (overeating disease, milk colic, pulpy kidney disease) is a frequent cause of sudden deaths among large, well-nourished lambs. This highly fatal disease is widespread in occurrence and is economically important because the largest, most vigorous lambs are the ones usually stricken. The disease can occur among suckling lambs of all ages, but is most common at 3 to 8 weeks of age. Enterotoxemia is also a common cause of deaths in feedlot lambs, kids and calves. Losses may range from 10 to 40% among nonvaccinated lambs.

Type D Enterotoxemia

This more common type of enterotoxemia is caused by a bacterium known as *Clostridium perfringens* type D. This organism is present in the intestines of most normal sheep and consequently is also in the soil and manure where sheep are kept. Under normal circumstances, bacteria numbers in the gut of the animal are too low to cause any problem. But when digestion is disturbed, as with overfeeding (acidosis), these bacteria grow rapidly and produce a powerful toxin (poison). The toxin is absorbed through the wall of the gut and causes death in a few hours.

Death often occurs so quickly that you will not notice any sick lambs. If you do observe sick animals, they will usually be separate from the flock, breathing rapidly and showing signs of abdominal pain. Convulsions occur in a short time. Concurrent signs are a drawn-back head, grinding teeth and paddling motion of the limbs. The lamb finally lapses into a coma and dies. Although these signs indicate enterotoxemia, other diseases show somewhat similar symptoms. You should check with a veterinarian to obtain a certain diagnosis.

Prevention

Since no satisfactory treatment exists for affected animals, prevention is the only practical solution to the problem of enterotoxemia. Commercial vaccines are readily available and losses in young lambs up to 6 weeks old may be prevented by vaccinating pregnant ewes. Ewes that have not been vaccinated previously should be given the vaccine twice with approximately 3 or 4 weeks between vaccinations. Time the treatment so the second vaccination is about 2 to 4 weeks before lambing.

An annual booster vaccination 2 to 4 weeks before lambing is advisable. If this procedure is followed and the lamb is suckled properly, the lamb will be protected by colostral antibody until it is 5 or 6 weeks old, then the lamb itself should be vaccinated.

If nonvaccinated ewes have already begun lambing, lamb losses can be reduced by vaccinating lambs at 1 week of age with a half dose of vaccine. Follow this with a full dose at 5 to 6 weeks of age. *This is suggested only as an emergency procedure. Vaccinatoin of the pregnant ewes is recommended.*

Type C Enterotoxemia

This disease (hemorrhagic enterotoxemia, bloody scours) usually affects lambs less than 1 week old. It is caused by *Clostridium perfringens* type C. This disease is of relatively low incidence and is usually associated with shed-lambing flocks, especially in wet, cold weather. Lambs may show signs of colic with black or bloody diarrhea, but often die suddenly without obvious cause.

Prevention

The most effective means of protection is to vaccinate the pregnant ewe. Commercial vaccines are available that contain both C and D toxoids and immunization against both can be accomplished simultaneously using the same schedule as for type D immunization.

Moving pregnant ewes and ewes that have recently lambed away from affected facilities to clean ground or open pasture may help relieve the situation. Antitoxin was sometimes used in the past, but it is no longer available.

A complete program of vaccinations will minimize the occurrence of these and other diseases in your flock. Consult your veterinarian to develop a vaccination schedule for the diseases common to your locality.

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