

SHEEP HEALTH

Fact Sheet . . . No. 2



ABORTIONS IN SHEEP

Several infectious agents can induce abortion, a major cause of loss in Midwestern sheep flocks. Securing an early, accurate diagnosis is important for effective treatment and institution of preventive measures. In most cases, abortion episodes can be stopped if the measures are taken promptly.

When abortion occurs, save the aborted fetus and placental membranes in a chilled plastic foam cooler. Do not freeze. Call a veterinarian and have the aborted fetus submitted to a diagnostic laboratory. Freezing or decomposition of the aborted fetus and placental membranes make diagnosis very difficult. Immediately isolate all ewes that have aborted. Clean and disinfect the contaminated area.

The major causes of abortion in Midwestern sheep flocks are discussed as follows.

Vibriosis

Vibriosis, caused by the bacterial organism *Campylobacter fetus*, subsp. *intestinalis*, is a contagious disease of sheep that causes abortion in late pregnancy. Abortion during the last month of pregnancy, stillbirths, and birth of weak lambs that soon die are common signs. The disease usually starts with one or two abortions in a flock, followed by a rapid increase in abortion rate. Diagnosis is by identification of the organism in the freshly aborted fetus and placental membranes at a diagnostic laboratory.

A vibriosis vaccine is available that will effectively prevent the disease in most flocks. Ewes should be vaccinated twice the first year in early gestation and again in midgestation and once yearly thereafter, usually immediately after the breeding season. Abortion episodes attributed to vibriosis can usually be stopped by immediate vaccination and flock treatment with 5 mg/lb. body weight of oxytetracycline or chlortetracycline in the feed for 5 to 7 days.

Enzootic Abortion of Ewes (EAE or Chlamydial Abortion)

EAE, caused by an organism called chlamydia, causes abortion during the last month of pregnancy, stillbirths, and weak lambs that soon die. It is transmitted from aborting sheep to susceptible individuals. Diagnosis is by identification of the organism in the aborted fetus, tissue, or uterine discharge. Prevention is accomplished by maintaining flock isolation and rigid sanitation during gestation. Abortion epidemics due to EAE can usually be stopped or dramatically reduced by treatment of the entire flock with tetracycline according to the same dosage as that for vibriosis. Vibriosis and EAE can occur simultaneously in a sheep flock. A combination EAE and vibriosis vaccine is now available.

Leptospirosis

Sheep are generally more resistant to leptospirosis than cattle, swine, and most other domestic animals. Abortion due to this disease may occur during the last month of pregnancy. A blood test of aborting sheep will confirm the diagnosis. Prevent the problem in flocks with annual vaccination of a five-strain leptospirosis vaccine. Avoid close contact with infected swine and cattle. Effective rodent control is also important because some types of leptospirosis may be transmitted to sheep by infected rats and other vermin. A combination of vaccination and treatment with oxytetracycline or chlortetracycline can control leptospirosis epidemics.

Toxoplasmosis

Toxoplasmosis, caused by the organism *Toxoplasma gondii*, causes abortions in the last month of pregnancy, stillbirths, and weak, uncoordinated lambs. The organism is a coccidium of cats spread to sheep when feed, water, and the environment are contaminated with cat feces. Toxoplasmosis is increasingly recognized as a cause of abortion in Midwestern

sheep. Laboratory examination of aborted lambs and placental membranes can confirm the diagnosis. There are no vaccines, treatment, or specific control methods for toxoplasmosis. Control farm cats and keep them away from pregnant sheep. Any ewe that aborts should be immediately isolated. The area in which she aborted should be carefully cleaned and disinfected.

Listeriosis

Listeriosis can cause abortion as well as problems of the brain and central nervous system, although these latter two forms of the disease are usually not found in a sheep flock at the same time. The causative organism, *Listeria monocytogenes*, can grow and survive in moldy or poorly fermented corn silage.

Sheep producers should be especially careful to make well cured silage with a low pH (high acid content). Moldy or spoiled corn silage should never be fed to sheep. When abortions occur, flock treatment with high levels of one of the tetracyclines may help reduce the incidence of problems.

Other Causes of Abortion

Several other causes of abortion, such as salmonellosis and brucellosis, do not commonly occur in sheep flocks. Because of the large number of abortion causes in sheep, producers should always notify a veterinarian to get a specific diagnosis so that proper treatment and preventive measures can be taken promptly and heavy losses avoided.

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