In previous issues of Vet’s Corner, we have discussed ovine abortion and campylobacteriosis (vibrionic abortion of ewes). The following article references another common cause of ovine abortion, chlamydial ovine abortion, or more commonly known as enzootic abortion of ewes (EAE).

Chlamydia psittaci (Antigenic type 1) is the organism responsible for the disease. It is an unique gram negative, spheroidal bacterium that replicates similarly to a virus. They normally require special microscopic techniques to confirm or identify their presence.

Infected ewes may appear sick for several days before they abort late in their pregnancy (last month). They may also deliver stillborn, weak, or premature lambs. In unexposed flocks, the abortion rate may reach 30-50% of the ewes. The abortion may occur the following year, if the exposure occurs after the ewes are pregnant. Ewe lambs exposed prior to weaning may harbor the disease and abort during their first pregnancy. In enzootic areas (area where the disease is commonly present) abortions will continue each season in the yearling and recently added ewes. Infected rams will show very few symptoms, but breeding will result in a reduced conception rate and possible uterine infections in the ewe.

The aborted fetus is usually well preserved, in contrast to an autolytic (already showing signs of decomposition) fetus in campylobacteriosis or vibrionic abortion of ewes. The fetus may be covered with a light beige or a clay-coloured, flaky material. The placenta exhibits variable areas of inflammation with hyperemic (reddened) margins and necrotic (decomposing) cotyledons. The areas between the cotyledons will be thickened, granular, and leathery appearing. Following the abortion, a brown uterine discharge is common. The placenta may also be retained and require additional medical attention. In rare cases, mortality of the ewe may result from an unexpelled, mummified fetus. Surviving ewes may become carriers.

This disease is contagious and normally spreads through oral or nasal contact, ingestion, or inhalation of contaminated material. The fetus, placenta, birth fluids, and vaginal discharge from the ewe are all sources of infection. Isolate the aborting ewes immediately and consult with your veterinarian on recommended treatment, proper disposal of the aborted fetus/placenta, and disinfection procedures. The veterinarian may also want to perform a necropsy or take samples for an accurate diagnosis.

Prevent the disease from spreading by limiting access to the aborted materials by wild birds and wild or domestic mammals, which may spread the organism. Take measures to assure that the water supply, drinking area, and feeding area do not become contaminated with the aborted material, or vaginal discharges. The use of ‘quarantine’ areas, separate boots, coveralls, and plenty of disinfection is highly recommended and cannot be stressed enough. Cleanliness is absolutely essential. Great care should be exercised to prevent human exposure.

This disease can be controlled with the use of a vaccine like CHLAMYDIA PSITTACI BACTERIN, from Colorado Serum Company. Vaccinate all incoming and unvaccinated ewes sixty days prior to breeding season and again thirty days later. Follow up with a booster every year just prior to breeding season. Chlamydial polyarthritis and conjunctivitis are caused by Chlamydia psittaci (Antigenic type 2) and does not allow for adequate cross protection. As always, consult with your veterinarian for the program that best fits your needs.