

Johne's Disease in Sheep and Goats

Johne's Disease (pronounced "Yoh-nees") is a bacterial infection of the gut which causes chronic weight loss in sheep and goats. It does not usually cause diarrhea, although 10-20% of infected animals may have mild diarrhea or fecal clumping in the late stages of disease. Mostly, infected animals lose weight and appear thin or malnourished, even in the face of excellent nutrition. The incubation period for Johne's is 1-5 years, so an animal may not show clinical signs for many years after it has been infected.

Additionally, infected animals can shed the organism in their feces long before they begin to look unhealthy. Transmission usually occurs via ingestion of the bacteria, which is shed in the feces of infected animals. It can also be transmitted *in utero* or via infected milk or colostrum. Young animals are most susceptible to infection, although adults can be infected as well. For all of these reasons, Johne's Disease easily spreads through herds of sheep and goats, and is difficult to control once introduced. Control measures include keeping sick or thin animals away from young animals, elevating feeders to reduce feco-oral transmission, and avoiding new animals from Johne's-positive herds.

Any thin sheep or goat should be evaluated for Johne's, as well as the other common medical causes of weight loss (parasitism, chronic infection, dental disease). Blood and fecal tests are available, which have very high specificity (few false positives). The tests are not very sensitive (many false negatives) in the early stages of infection, prior to shedding, but they are fairly good at picking up the disease once the animal is showing some clinical signs. There is no specific treatment for Johne's Disease, but it is important to know which animals are infected and shedding the organism, in order to prevent the infection of other animals in the herd.

CAE/OPP in Sheep and Goats

Caprine Arthritis and Encephalitis (CAE) and Ovine Progressive Pneumonia (OPP) are caused by two distinct but similar retroviruses. They cause similar clinical signs in the two species and cross-infection between sheep and goats appears to exist. Infected animals often show no clinical signs, especially early in the infection. However, they can also have any of the following clinical signs: severe arthritis (swollen joints and lameness), encephalitis (neurological signs such as circling, blindness, or seizure-like behavior), interstitial pneumonia (tiring easily, breathing quickly or harder than usual, +/- coughing), "hard bag" mastitis (swollen udder that feels firm to the touch), or chronic weight loss. The most common clinical signs in goats are arthritis in older animals and encephalitis in young animals. The most common signs in sheep are exercise intolerance, lagging behind, and breathing hard. Transmission occurs via ingestion of unpasteurized infected milk or colostrum, as well as nose-to-nose contact. Diagnosis is made using the combination of clinical signs and a blood test. New goats and sheep from herds whose CAE/OPP status is not known should be tested for these diseases prior to introduction to your herd, so as not to introduce the viruses to your healthy animals. If you have reason to believe that one of your animals may be infected, please call us to help you come up with a management strategy.

Sheep and Goat Management Seminars for New (and Old!) Owners.

Be on the lookout for Black Pond's winter seminars on sheep and goat management! Two lectures, one on basic husbandry of sheep and goat pets, and one about the most common medical disorders to recognize at home, are scheduled for later this winter.