

Johne's Testing @ PDS

Johne's is a debilitating bacterial disease affecting the intestines of cattle, sheep, and goats. It is caused by the *Mycobacterium avium* ss. *Paratuberculosis* bacteria (MAP). The long incubation period makes Johne's difficult to detect and prevent. Many animals within a herd may be infected before any clinical signs are observed. Animals that look normal can still shed the bacteria and infect other animals in the herd. Detecting infections may be further complicated because signs of disease usually do not appear until the animals are adults.

by Dr. Wendy Wilkins, Disease Surveillance Veterinarian, Animal Health Unit, Saskatchewan Ministry of Agriculture

Sample Collection

- ❖ Johne's testing is recommended in animals at least 18 months old for cattle, and after second kidding/lambing or older for Sheep and Goats.
- ❖ Turnaround time will be longer if large batches are submitted. Contact PDS (306-966-7316) for current turnaround time.
- ❖ Additional charges may apply if samples are received with out an Excel list of sample IDs and for dirty tubes.
- ❖ Create an Excel spreadsheet of animal IDs, making sure the IDs match the sample labels. Email Excel spreadsheet to dso@usask.ca and attach a printed copy to a completed PDS submission form.

Johne's PCR – Fecal Samples

- ❖ Use a clean plastic sleeve for each animal to prevent cross contamination between animals.
- ❖ Place feces in a sterile, wide mouth, screw top container that will withstand shipping.
- ❖ Place a minimum of 15 grams (3 tsp.) of feces in each container. Make sure the screw top is secure.
- ❖ **Do not send samples in gloves, Ziploc bags, or twirl top bags.** These may leak in transport which may result in sample contamination.
- ❖ Label each container with the animal ID, using a waterproof marker.
- ❖ Place samples in a Ziploc bag, maximum 10 samples per bag. If samples are liquid, place each sample in an individual Ziploc bag.
- ❖ Once feces are collected, it is important that they are shipped to the lab as soon as possible. Delays between sample collection and testing can compromise results.
- ❖ **Store feces in fridge until shipping.** Freeze thaw cycles can cause issues with Johne's detection.
- ❖ Package samples in a sturdy shipping container that will prevent samples from breaking during shipping.
- ❖ Johne's PCR pooled testing, send individual samples. **Pooling will be done in the laboratory.**

Johne's ELISA – Serum Samples

- ❖ Collect blood in red top tube. Make sure exterior of blood tube is clean.
- ❖ In cold months, it is advisable to separate the serum from blood since frozen blood will result in hemolysis that can alter the serology results. This can be done by centrifuging the blood tubes and placing serum in a new blood tube or using tubes that come with a separator and centrifuge them before shipping.
- ❖ Label each tube with the animal ID, using a waterproof marker.
- ❖ Ensure tube stopper is completely inserted and secure. Do not wrap tape around tube stoppers.
- ❖ If possible but not required, centrifuge sample and transfer serum to another red top tube. Label tube with animal ID.
- ❖ Arrange samples in the shipping container in the same order they are listed on the Excel list.
- ❖ Package samples in a sturdy shipping container that will prevent samples from breaking during shipping.