

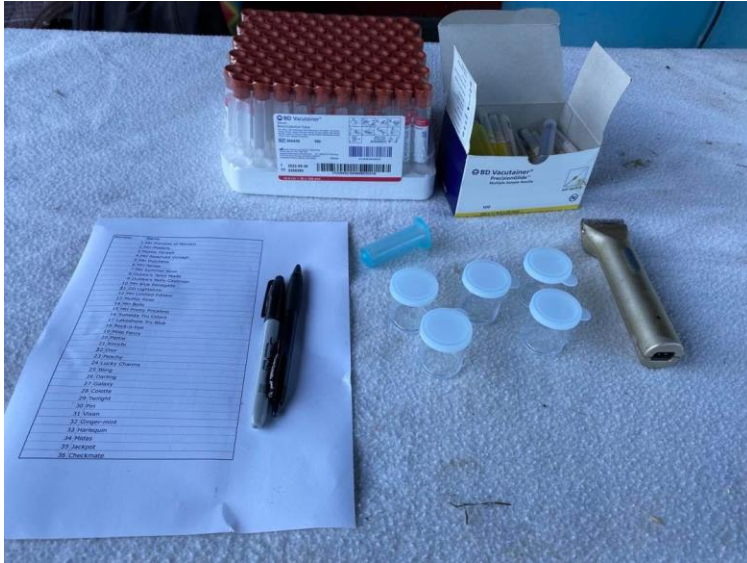
## BC Goat Letter January 2021

# Herd Testing - How do I get started?

Written by Cobie Woods, Milk House Goats

Many goat producers are interested in testing for CAE and Johne's. Testing for these two diseases are available through our provincial lab and the BC Animal Health Centre. There is a lot to be said for why it is important to test and the short-falls for testing but that is for another day and deserving of its own article.

It would be best to work with your veterinarian to develop a disease prevention program however we recognize that in some areas there is limited access to large animal vets with goat experience and/or can be extremely cost prohibitive. We are fortunate to have a provincial lab that will accept owner submissions but it is important to complete the paperwork and follow their instructions so owners continue to have this option.



First of all you have to locate all of the proper supplies you will need. At a minimum you will need the following:

1. "Red top" serum separator tubes (purchase extras)
2. Vacutainer holder for multi needles
3. multi needle blood collection needles (20 gauge)
4. shaver/clipper
5. alcohol and gauze
6. permanent felt pen
7. List of goats and pen
8. Small containers with lids (if doing fecal Johne's testing)

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The tubes, needles and holder can usually be purchased through your local veterinarian or through Backwood Goats (can be found on facebook or [backwoodgoats@hotmail.ca](mailto:backwoodgoats@hotmail.ca)). We get the containers at the dollarama in the craft section.

## COLLECTING YOUR SAMPLES

Now to get the blood collected...it is best to have a second person that can hold the goat still while another person collects. Get a friend or fellow goat owner to come help as keeping the animal calm and still is going to make this job much easier.

Step 1: **Needle prep** by threading the needle onto the holder and having a vacutainer tube ready.

Step 2: **Restrain** the goat with its head held in a normal upright position. Some people like to turn the head a little but we have found it easiest when they are looking almost straight ahead.

Step 3: **Shave** a strip on the neck between the esophagus (centre) and the neck muscle. You should be able to feel a bouncy tissue, not hard like the muscle. Apply pressure with your thumb across the shaved area and you should see the vein bulge and it will have a bouncy balloon-like texture, that is where you want to insert the needle. Shaving is not always necessary but does make it easier to see especially when you are learning.

Step 4: **Disinfect** the area with an alcohol soaked gauze/cotton pad.

Step 5: **Jab** - take the lid off of the needle and have the vacutainer tube handy (table near or held in the holder but not pressed in. You are going to insert the needle at a 45 degree angle into the jugular vein that is bulging.



Step 6: **Collect** blood by pressing the vacutainer tube onto the needle and blood should start flowing into the tube, 5ml sample is ideal, minimum 2ml.

Step 7: **Remove** the needle from the vein and slide the tube off the needle. Sometimes the animal will bleed and you can apply pressure for a few seconds, most often they don't bleed and it's not needed.

Step 8: **Label** your tube right away with a number that corresponds to your list (optional to add their name) but there is not a lot of space and be sure to be clear.

Step 9: **Clot** - After collection keep the blood samples at room temperature until serum has separated from the clot (30-60 minutes).

Step 10: **Refrigerate** - put samples in the fridge until they are ready to be shipped.

Here is a good video from BioPryn that shows clear these same steps.

<https://www.youtube.com/watch?v=kWGbot4GeSo>

Some people like to use a syringe and a regular 20 gauge needle instead and that is definitely an option and then just insert the syringe needle into the vacutainer tube instead. That is certainly an acceptable

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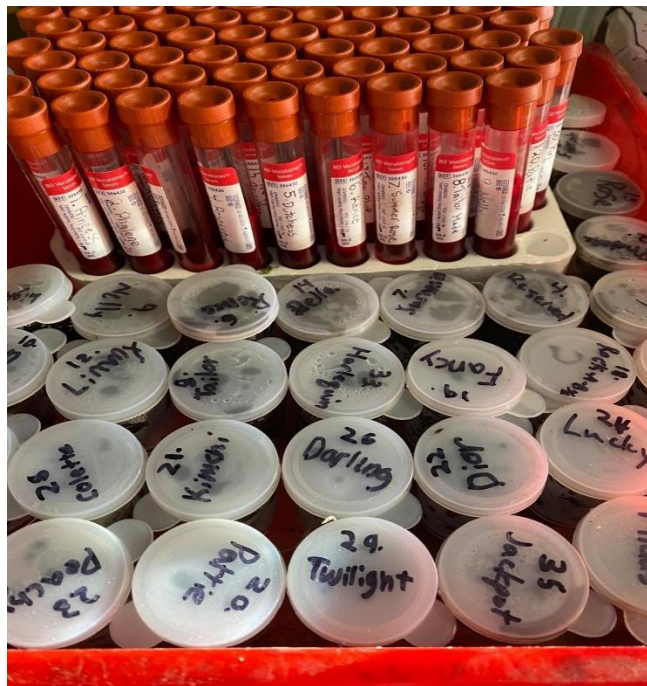
option and comes down to preference for the collector. It does create more garbage as you have to use a new syringe per animal and so we opt to use the above method.

### JOHNE'S TESTING

An ELISA blood test for Johne's is available and can be performed on the same sample collected for CAE testing which is easy and relatively cost effective. [Johnes.org](http://Johnes.org) has a lot of good information about the disease that can be found here <https://johnes.org/goats/diagnosis/>. Here is what Johne's.org currently recommend regarding screening:

*Pooling of (fecal) samples (5 per pool with pooling done by the testing lab) is the most accurate and affordable way to test your herd if you have a low or zero prevalence of infection. Request "Direct PCR (pooled)" on the submission form and list your animals on the submission form in the order by decreasing age (oldest first). This insures that the pools are created with the maximum likelihood of having the MAP-infected animals in the same pool.*

If you choose to submit fecal samples for the PCR Johne's testing you will need to collect fresh poop from each animal and put it in its own clean container, no baggies please. Yes this means you are going to spend a lot of time looking at goats butts! Goats will generally poop right after they pee so get your containers ready and if you get up early and are well prepared almost all goats will poop very soon after getting up from resting and you should be able to get most of the samples very quickly. **You will need a 10 gram fresh fecal sample per individual**, it is very important to collect enough as the lab has had many samples submitted that were not able to run the test on because they did not send in enough poop. You have to submit 10gm samples from each animal and then they pool them in groups of 5 (you can specify which should be grouped together). They pool them so if the group tests positive then they can run tests separately on each animal to find out which ones are positive. Refrigerate after collecting until they are ready to be shipped.



### HOW MUCH DOES IT COST?

The current cost is \$10 per test for both CAE and Johne's test performed on the blood sample, so \$20 per animal. If you decide to submit fecal samples instead, the cost is \$35 per PCR fecal Johne's test but they are pooled in groups of 5 by the lab so it works out to \$7 per animal if you have multiples of 5, so is slightly more cost effective and more reliable testing result.



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## SUBMITTING YOUR SAMPLES

It is very important to fill out the lab's paperwork correctly. You will have to complete the **MAMMALIAN SUBMISSION FORM** that can be found here [Mammalian Submission Form](#). Complete the Owner section fully and then under Services Requested section you will need to go to **Serology** and tick off the box CAE – Caprine Arthritis Encephalitis and Johne's Disease if you want both tests completed on the blood sample.

If you want to go with the pooled PCR testing for Johnes, you will be only ticking off CAE in the Serology section and then go to **Molecular Diagnostics (PCR)** section and will write in "Pooled Johnes" here.

Please see the sample below:

FORM # FQM-012M-01 Mammalian Submission Form ANIMAL HEALTH CENTRE Page 1 of 2

Case #

Ministry of Agriculture

**Please fill out form as completely as possible to avoid testing delays**

Submitted By:  Owner  Vet Clinic  Other (fill out info →)

Reports To:  Owner  Vet Clinic  Other (fill out info →)

Bill To:  Owner  Vet Clinic  Other (fill out info →)

Client Reference Number: \_\_\_\_\_

Insurance Claim?  Yes  No Possible Litigation?  Yes  No

\*Owner: Jane Doe

Farm Name: \_\_\_\_\_

\*Address: 123 Pine Str

\*City: Cranbrook \*Postal Code: V2S 1S7

\*Phone: (250) 999-9999

\*Email (or Fax): janedoe@gmail.com

\*Species: Caprine \*Breed: \_\_\_\_\_ \*Age: \_\_\_\_\_ (indicate units - D, W, M, Y)

\*Sex:  M  F  MIN  P/S

Animal ID/Name: \_\_\_\_\_ Tattoo/Tag No: \_\_\_\_\_ CCIA Tag No: \_\_\_\_\_

No. Submitted Live: \_\_\_\_\_ No. Submitted Dead: \_\_\_\_\_ Date Animal(s) Died: \_\_\_\_\_

**History**  
Please concisely describe the circumstances surrounding the illness or death in the submitted animal(s). (i.e. Describe clinical signs, date of onset, housing, production level, treatments given, etc.)

Condition suggested: \_\_\_\_\_ Related previous case(s) Animal Health Centre number(s): \_\_\_\_\_

\*Specimen(s) Submitted:

Whole Animals:	Whole Animal _____	Blood _____	Feces _____	Placenta _____	Swabs _____	Date Collected: _____	
	Feces _____	Milk _____	Water _____				
Fresh Tissues:	Brain _____	Heart _____	Lung _____	Kidney _____	Placenta _____	Muscle _____	Date Collected: _____
	Stomach _____	Intestine _____	Other _____				
Fixed Tissues:	Brain _____	Heart _____	Lung _____	Kidney _____	Placenta _____	Muscle _____	Date Collected: _____
	Stomach _____	Intestine _____	Liver _____	Spleen _____	Other _____		

\* Please ensure all required information (indicated by \*) is completed. Samples with incomplete forms will not be tested.

FORM # FQM-012M-00 Mammalian Submission Form Page 2 of 2

**Presenting Complaint:**

Abortion  Diarrhea/Enteric  Musculoskeletal  Neurological  Respiratory  Neoplasia

Sudden Death  Unthriftiness  Urinary  Reproductive  Other (Please specify in History section)

Treatments:  None  Antibiotics  Fluids  Anti-inflammatories  Other (Please specify in History section)

Vaccinated?  No  Unknown  Yes Specify: \_\_\_\_\_

Euthanized?  No  Yes Specify Method: \_\_\_\_\_

**Additional Information (please include as much information as possible if applicable)**

No. in Group: \_\_\_\_\_ No. (or %) Sick: \_\_\_\_\_ No. (or %) Dead: \_\_\_\_\_ Duration of Illness: \_\_\_\_\_

Cattle:  Dairy  Cow/Call  Veal  Feedlot

Swine:  Farrow  Nursery  Weaner  Grower  Feeder

Horse:  Racehorse  Pleasure

Ration Type: \_\_\_\_\_ Describe: \_\_\_\_\_

**\*Services Requested:**

Post Mortem examination  Neurologic examination  Necropsy Post Mortem Diagnostic Package (for necropsies conducted outside of the AHIC)

Specific Testing: Please indicate below the specific testing requested if neither Post Mortem nor Necropsy Post Mortem Diagnostic Package selected.

Serology:  Johne's Disease  B.LV - Bovine Leukemia Virus  CAE - Caprine Arthritis Encephalitis  BVD  CDV

Difficile toxins A & B  Neopora caninum  OPP - Ovine Progressive Pneumonia  Q fever - Coxiella burnetii

Other (specify): \_\_\_\_\_

**Electron Microscopy:** \_\_\_\_\_ **Parasitology:** \_\_\_\_\_

Other (specify): \_\_\_\_\_ **Histopathology:** \_\_\_\_\_

**Virology:** \_\_\_\_\_ **Bacteriology:** \_\_\_\_\_

**Molecular Diagnostics (PCR):**  
Pooled Johnes

\*For a full list of tests and fees please visit <http://www.gov.bc.ca/animalhealthcentre>

Private Cremation Requested subject to pathologist approval, remains may be released to a licensed crematorium after completion of form FQM-014 (contact Front office, additional fees apply).

Additional tests may be conducted at pathologist's discretion (additional fees may apply).

Specimens submitted become the property of the AHIC and are cremated on site following testing (unless arrangements for a private cremation are made with a licensed crematorium). Ashes cannot be returned. Information related to food-producing animal testing may be used by the Ministry of Agriculture for the purpose of maintaining historical surveillance of production animal health in BC. Personal details will not be disclosed, in accordance with the Freedom of Information and Protection of Privacy Act. In the event of a suspected reportable, notifiable or foreign animal disease, the AHIC is obligated to comply with the federal Health of Animals and the provincial Animal Disease Control Acts by confirming the diagnosis and notifying the appropriate agencies.

\*Submitter's Signature: \_\_\_\_\_ \*Date: Jan 1 / 2021

\* Please ensure all required information (indicated by \*) is completed. Samples with incomplete forms will not be tested.

For herds submitting more than 10 samples you should be sending a list of the goats (preferred in a spreadsheet) with the goats' name and assigned number. Email your list to this email address [PAHB@gov.bc.ca](mailto:PAHB@gov.bc.ca)

You will need to courier your samples overnight or drop them off in person. The samples should be packaged well to ensure they are clean, dry and will not break in transport and **with ice and packing to stay at 2-7C**. If you are shipping whole blood, consider the time of year as whole blood CANNOT FREEZE or it will be unsuitable for testing. If you are able, pour off the serum into a new tube as it will ensure a more stable sample and can be kept longer. Paperwork should be placed in a zip lock bag within the outer layer of packaging to prevent it from getting wet from ice packs or contaminated from the sample itself.