


Diagnostic Sampling ABCs

Our team of veterinarians and technicians are often collecting various fluids, solids, and assorted parts from your animals to help answer the question “what is making my animal sick?”. Sometimes we are able to perform that test right away on-farm, other times the samples need to be brought back to our clinic or even sent away to a lab in Guelph or Ottawa for more complicated testing. We always try to explain how and why we want to do tests, but if you’ve ever been confused by our alphabet soup of test names or wondered whether we need a red-top tube or a purple top tube. Here’s a handy reference table for our most common samples we collect, where they end up, and why we are running that test on your animal.

On-Farm (Animal-side) Sampling and Tests			
Sample	Test	Use	
Blood droplet	BHBA	Identify ketotic cows	
Milk	Ketone strip	Identify ketotic cows	
Milk	California Mastitis Test (CMT)	Identify mastitis quarter(s)	
Manure	Calf Scour Test	Determine cause of scours (Rota, Corona, E. coli, crypto)	
Surface swab	Luminometer	Measure bacterial contamination of bottle/pail/cloths	
Colostrum	Brix refractometer	Confirm good quality of colostrum	
TMR	Shaker-box	Assess feed particle size	

Heartland In-Clinic Sample Testing		
Sample	Test	Use
Milk	Antibiotic Residue Test (Charm Trio)	Confirm whether a cow or bulk tank is safely free of antibiotics
Milk	Bacterial Culture	Identify type of bacteria to determine appropriate treatment
Manure	Fecal egg count / Flotation	Determine cause of scours (Coccidia and Crypto)
Blood Serum (Red Top Tube)	Total Protein	Confirm good passive transfer of antibodies from colostrum to calf
Blood Serum (Red Top Tube)	Biochemical Profile: - Calcium, Phos & Mg - Enzyme Activity & Urea - Proteins	Multi-purpose test: - Determine treatment for down cows - assess organ function (liver, kidney, muscles) - measure dehydration and immune response

Heartland In-Clinic Sample Testing		
Sample	Test	Use
Whole Blood (Purple Top Tube)	Complete Blood Count: White Blood Cells Red Blood Cells	Multi-purpose test: - Detect response to infection, some blood cancers - Identify cases of hidden blood loss (internal bleeding, ulcers, parasites) and/or determine severity of loss (need for transfusion or vitamins)
Skin Scraping	Microscope	External parasites/bacteria/yeast
Forages	Dry Matter Test	Properly balance ration

External Lab Testing (Animal Health Lab Guelph, Government Labs, Feed Mills)		
Sample	Test	Use
Blood Serum (Red Top Tube)	ELISA or PCR	Detect immune response or DNA specific to bacteria, viruses, or parasites to identify cause of disease/abortion
Blood Serum (Red Top Tube)	Lab Pregnancy Testing	Confirm pregnancies at least 28 days post breeding and 73 days post calving.
Manure	Bacterial culture or PCR	Detect Salmonella or Johnes
Placenta/Fetus	Abortion Panel	Determine abortion cause (viral, bacterial)
Post Mortem Tissues	Histology	- Microscopic analysis to see if cells are normal or abnormal, and if bacteria/virus/parasites are present
	Bacterial Culture	- Grow bacteria and determine what antibiotic to choose
Brain (whole)	Rabies	Detect rabies (human health risk)
Brain stem	BSE	National monitoring program to keep cross-border trade
Water Sample	Bacterial count	Proaction requirement, milk quality, calf scours
Forage / Concentrates	Feed analysis	Properly balance ration
TMR / Ingredients	Mold / Mycotoxin Testing	Troubleshooting health or reproductive issues



You're invited to
HEARTLAND VETERINARY SERVICES
DAIRY DAY

March 22nd, 2023

Listowel Ag Hall

Doors open at 10:00am

Sessions start at 10:20

Speakers include:

Dr. Jocelyn Dubuc – Reproductive solutions

Dr. Ray Reynen – Transition cows

DFO Representative – DFO update



Please RSVP at the clinic to reserve your spots!

519-291-2060 or email LA@heartlandvets.ca

Coffee, Donuts, and Lunch provided