NDSU VETERINARY DIAGNOSTIC LABORATORY

Water Quality Analysis for Livestock, Blue-Green Algae Collection Guide, and Cyanotoxin Collection

Livestock & General Contamination Water Sample Collection:

- Collect a minimum of 100 mL of the sample (250 mL preferred) in a plastic container (rinse the container 2 to 3 times in the water) for water quality analysis. Sample water from where livestock drink. Label the container with an ID using a black marker. Seal tightly and wrap the top with tape (duct tape, shipping tape, electrical tape, etc.) to prevent leaking. Place the water container in a sealable plastic bag. See Table below
- Tip: Collect the water samples early in the week (Mon through Wed) and ship to arrive at the lab by Friday (or last day of work week) to avoid a delay of the weekend and possible deterioration of the water quality. Fill out Toxicology Feed & Water Submission Form (www.vdl.ndsu.edu/forms) and include a phone number and email for faster response of a report.

Blue-Green Algae or Cyanobacteria Guide:

- Ship sample immediately on an ice pack by next-day delivery. Avoid temperature extremes – do not freeze or leave in a hot location.

Cyanotoxins in Water Collection Guide:

- To collect a water sample for cyanotoxins use an amber glass container (contact NDSU VDL for containers) to avoid cyanotoxins adhering to plastic. Take the sample where livestock drink and where a blue green algae or cyanobacterial bloom is occurring (usually area of blue to green discolored water) and sample the upper few inches of the bloom and deeper in the water column. Some cyanobacteria occur near the sediment and water sampling should include near the sediment if evidence of livestock tracks into the water shoreline.

Test	Livestock Water Quality	General Contamination Screen	Blue-green algae or cyanobacteria ID	Blue-green algae toxin or cyanotoxins in water
Water sample amount	(100 ml minimum) 250 ml prefer		(20 ml minimum) 250 ml preferred	
Location	Livestock water source with water taken from the surface and deeper in the water column	Sample water area of concern	Sample blue-green or discolored water (Not chlorinated water) on surface and deeper in water column (and water near the sediment if area where animals enter to drink water in a pond/lake.)	
Collection container	Clean Plastic Container (rinse out a potable water container in the source water prior to sampling, avoid pop bottles and pickle jars)	Clean Plastic Container	Clean plastic or glass container	**Amber glass, avoid plastic** (contact NDSU-VDL for containers) & overnight shipment
Shipment	Keep sample cool on icepacks or in refrigerator (DO NOT FREEZE or leave on dash of vehicle) and ship next-day delivery on ice-pack for cyanobacteria ID and cyanotoxin analysis in water.			

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