



Influenza-A Virus Sample Collection - Dairy Cattle

Submission Instructions

Only veterinarians or agents acting on their behalf are permitted to submit samples to the Atlantic Veterinary College (AVC) for Influenza A Virus testing. We **do not** provide services to the general public.

If there is a high suspicion of an FAD agent causing mortality on a premise, please contact the Canadian Food Inspection Agency (CFIA) directly. CFIA will determine if samples/carcasses will be submitted to AVC for FAD testing.

Sample submissions for Influenza-A Virus testing **cannot** be dropped off directly to the FAD laboratory. Samples should **never** be dropped off and left unattended at AVC. Please call the Regional Diagnostic Virology Services (RDVS) laboratory at 902-566-0877 for assistance.

Sample Selection Guidelines for Suspected Inf-A Infection in Dairy Cattle

Avian influenza viruses are best detected in dairy cattle from specimens collected from bulk milk tanks, lactating dairy cattle and non-lactating dairy cattle (dairy calves, heifers and dry cows).

Collecting Bulk Tank Samples (Milk)

1. Collect samples in a manner consistent with the industry standards for collection of milk samples.
2. Label a specimen container with the farm name and "bulk tank" to clearly identify the sample.
3. Agitate the tank for 5 minutes prior to collecting any samples.
4. Collect 10 milliliters of milk from one individual milk tank into a plastic specimen container with a secure lid (screw cap). It is recommended to parafilm the container to prevent leakage during shipment.
5. Refrigerate all milk samples after collection and ship milk samples to the laboratory on ice packs. Please refer to the "FAD Sample Submission Guidelines" for further information on packaging and shipping FAD samples to the laboratory.

Collecting Samples from Lactating Dairy Cattle (Milk)

1. Label each specimen container with a unique animal ID.
2. Clean the udder and be sure to remove any visible debris.
3. Collect a total volume of 10 milliliters of milk from one individual animal by combining milk from all 4 quarters into a plastic specimen container with a secure lid (screw cap). It is recommended to parafilm the container to prevent leakage during shipment.
4. Refrigerate all milk samples after collection and ship milk samples to the laboratory on ice packs. Please refer to the “FAD Sample Submission Guidelines” for further information on packaging and shipping FAD samples to the laboratory.

Collecting Samples from Non-Lactating Dairy Cattle (Nasal Swab)

Swabs for Inf-A RT-rtPCR testing **must** be submitted in viral transport media (VTM). Gel-based swabs typically submitted for Bacteriology testing are **not** suitable for PCR testing and will be rejected by the FAD laboratory.

VTM vials may be purchased from VWR (Catalog # CA73270-008) or from the Regional Diagnostic Virology Services Laboratory (subject to availability). Please contact RDVS by phone (902-566-0877) or email (rdvsavcds@upei.ca) for purchase inquiries.

To collect the swab(s):

1. Label each vial of VTM with a unique animal ID.
2. Use a single sterile swab (synthetic fiber swab only) to sample both nostrils.
3. Firmly brush the nasal mucosa as deep as possible in the nasal passages
4. After swabbing the nasal passages, gently agitate the swab in the VTM for ~5-10 seconds.
5. Carefully lift the swab out of the VTM and gently press the swab on the inside of the VTM vial to squeeze out any fluid from the swab.
6. Remove the swab from the VTM vial and discard the swab through the appropriate disposal methods. Please **do not** leave the swab in the VTM.
7. **DO NOT** pool swabs from more than one individual animal into the same vial of VTM.
8. Vials of VTM may be stored at 2-8°C for up to 24 hours after sample collection. For longer storage (>24 hours), vials of VTM should be stored at -70°C or colder.
9. Please refer to the “FAD Sample Submission Guidelines” for further information on packaging and shipping FAD samples to the laboratory.