FAQ for State Animal and Public Health Officials on Animal Coronavirus Testing

*Note: The scientific name of the new strain of coronavirus is SARS-CoV-2. In people, the disease caused by the virus is commonly referred to as COVID-19. Because we are addressing the virus itself in the context of animal health, we refer to it as SARS-CoV-2.

How will the decision to test be made?
The decision to test any animal for the SARS-CoV-2 virus will be made collaboratively between local, state or federal public health and animal health officials, or between federal agencies, using a One Health approach. Guidance, which was collaboratively developed by USDA, CDC, and other federal agencies, for the evaluation for SARS-CoV-2 testing in animals is available at: https://www.cdc.gov/coronavirus/2019-ncov/php/animal-testing.html

This is an evolving situation, however, routine testing of animals is not recommended at this time. Public health and animal health officials may decide to test certain animals that are showing signs and that are known to have been exposed to the virus.

State animal health laboratories can conduct animal testing, but any positive samples would need to be confirmed through additional testing by USDA’s National Veterinary Services Laboratories (NVSL).

Who will collect the animal samples?
Once the decision is made to test, samples should be collected using appropriate personal protective equipment and sample collection methods. The state animal health official(s) will identify the appropriate person to collect the sample.

What sample types will be collected?
Oral, nasal and rectal/fecal swabs are recommended by OIE and should be collected according to routine sample collection protocols. Store each swab in a separate tube containing viral transport media (e.g. universal VTM or BHI); dry swabs should be avoided. Blood samples may be collected for archiving until appropriate tests are available. Collect serum in a sterile Vacutainer; remove serum from the clot into a sterile tube prior to storage.

- For the deep pharyngeal swab, ask an assistant to open the mouth. Then vigorously swab the back of the oropharynx near the tonsils, taking care to avoid the tongue and heavy saliva contamination.
- For the deep nasal swab, insert the swab tip as far into a nostril as possible and rub to remove epithelial cells.
- Open a clean sterile tube containing VTM or BHI, insert about one-third of the swab handle, then snap the plastic handle so that it breaks and the swab tip falls into the tube. Close the tube tightly.
How should samples be stored? 
Store swab samples in VTM at 2-8°C for up to 72 hours after collection. Serum may be stored briefly at 2-8 or longer term -20°C; do not freeze whole blood.

How should samples be packaged and labelled? 
Please follow NVSL protocols for packaging and labeling submissions to the NVSL. Diagnostic samples may be shipped as exempt material; UN3373 may be used where the situation warrants. Maintain sample cold chain using gel ice packs.

Please communicate with the intended testing animal health laboratory before shipment and receive any specific instruction for packaging samples.

How should samples be submitted to NVSL and NAHLN? 
Please follow the NVSL sample submission procedure. Please also call ahead of sample shipment – during business hours 515-337-7551 – and email the specimen submission form (VS 10-4) and tracking information to: NVSL.DVL.Heads@usda.gov.

What is the reporting process? 
Labs should follow their reporting process, but no results should be reported publicly until confirmed by NVSL. SARS-CoV-2 detection in any animal is currently reportable per OIE guidance.

What about private veterinary laboratories that are offering SARS-CoV-2 testing for pets? 
USDA is aware of private veterinary laboratories that are conducting SARS-CoV-2 testing on animal samples. Any positive samples require confirmation testing at USDA’s National Veterinary Services Laboratories.

In accordance with international reporting guidelines, collecting additional samples and background information may be required to complete confirmatory testing of cases from private laboratories. Contact NVSL for more information.

Foot Notes:
1 State wildlife officials will be contacted for decisions concerning non-captive wildlife
2 Federal officials will consult on decisions concerning animals maintained in federal facilities or on federal lands.
3 The NVSL and members of the National Animal Health Laboratory Network (NAHLN) have been working collaboratively on several publicly available assays including CDC, WHO, and Corman, et al. All have ensured ability to utilize reagents not required by public health efforts, and exclusion testing has been performed. At NVSL a panel of 22 viruses of different species origins (bovine, porcine feline, canine, equine) and coronavirus subgenera have been tested and are negative against the tests used. Additionally, the NVSL and members of the NAHLN have tested the SARS-CoV-2 viral RNA against available companion and livestock coronavirus assays; all report negative results against these assays.