



Botulism Diagnostic Laboratory
University of Pennsylvania - School of Veterinary Medicine
Dr. Raymond W. Sweeney, Director
382 West Street Road
Kennett Square, PA 19348
Phone: 610-925-6245, 610-925-6132

Last updated September 1, 2016

Instructions for Botulism Sample Submission

Available Botulism Assays:

Botulism Types A, B and C real-time PCR :

Our laboratory tests all diagnostic samples using a real-time PCR assay for the detection of *Clostridium botulinum* types A, B and C toxin genes in vegetative cells after a culture enrichment step. Finding *C. botulinum* organisms or spores in a fecal or GI sample of a horse or cow, or in a feed sample, is strongly supportive of a diagnosis of botulism in animals exhibiting compatible clinical signs... samples from normal animals are rarely positive.

The mouse bioassay to detect preformed toxin in serum, feed, or other samples is no longer available in our laboratory. Serum samples are rarely of value in horses and cattle unless the clinical signs have a peracute onset and progression of clinical signs. Serum samples from clinically affected dogs and birds are more likely to be positive for toxin, since a higher concentration of toxin in these species is required to cause disease. If you have serum or other samples that you would like to have tested for preformed botulinum toxin by the mouse bioassay, this test is available at the National Veterinary Services Laboratory (NVSL). Please contact them at 515-337-7565 or visit their website for submission instructions.

http://www.aphis.usda.gov/wps/portal/aphis/ourfocus/animalhealth?1dmy&urile=wcm%3Apath%3A/aphis_content_library/sa_our_focus/sa_animal_health/sa_lab_information_services/sa_about_nvsl/ct_about_nvsl

Turnaround Time:

Sample processing, including culture enrichment followed by PCR testing, requires approximately 5 days. Samples arriving in the lab before Friday will have results available the following Tuesday or Wednesday. **It is recommended to contact the laboratory (610-925-6245) before shipping samples to confirm testing schedule for time-sensitive samples.**

Cost of Diagnostic Testing per Sample

PCR for organism/spores: \$150 a sample

There is also an accession fee of \$25 for each group of samples submitted. An invoice is sent to the submitting veterinarian upon receipt of the samples.

Samples to Submit

The best samples to submit for botulism testing are generally stomach/rumen contents, GI contents, feces, spoiled forages, parts of dead animals found in suspect feed, and soil from underneath affected areas.



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How Samples should be packed

Intestinal/Stomach/Fecal/Haylage

Approximately 2 ounces of liquid or 20 grams of solid sample is ideal for testing. Samples should be sent in whirl-pack bags or other suitable small leak proof container. Put each intestinal sample (contents only, please don't send whole intestines or intestines tied off on either end) in a separate Whirlpak bag and clearly label with ID with a waterproof marker such as a Sharpie.

Storage and Shipping of Diagnostic Samples

If Samples are fresh and are to be sent immediately:

Pack in Styrofoam box with ice packs and send Standard Overnight via UPS or FedEx.

If Samples will not be sent immediately:

Please store in freezer until ready to send, and then follow the instructions above.

What to Include with Samples

Please include along with the samples a completed Submission Form with a detailed clinical history including the number of animals affected, number showing clinical signs, number dead, progression of clinical signs, treatment of the animals, the suspected source, results on any other tests ran on the animals, etc. If the animal has been necropsied, please attach a copy of the necropsy report.

Where to Send Samples

Attention: Botulism Laboratory

New Bolton Center

382 West Street Road

47 Myrin Building

Kennett Square, PA 19348

Laboratory Contact Information

Terry Webb

Botulism Laboratory Technician Phone

(610) 925-6245

Fax (610) 925-6807

tfyock@upenn.edu

*NOTE: Please do not send samples to arrive Saturday or Sunday, as we are not available to receive samples on the weekend.