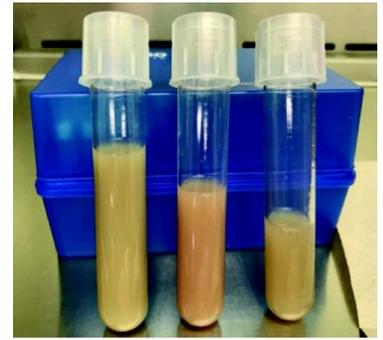


# Best Practice Sample Submission

## Oral Fluid For Molecular Testing



It is a VDL policy to submit samples through and report results to your veterinarian. Direct involvement of your veterinarian allows for optimal management of diseases. If an owner or producer would also like a copy of the report sent directly to them for their records, check the "Email:" box in the "Preferred Method for Reporting Results" section. Include all necessary emails on the line on the first page or mark the Addn'l Emails block on the first page and fill out the "Additional emails" line on the second page. Please complete the form online and print it out. This greatly decreases the chance for typos in the report, and helps keep administrative costs down.

## Sample Collection

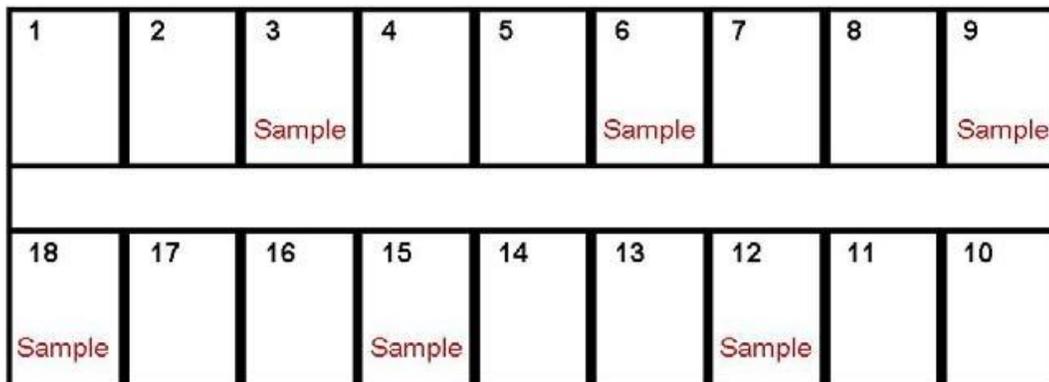
- Submit in plastic screw top or snap cap tubes
  - Screw Top: 5 ml, 10 ml, 15 ml, or 50 ml tubes
  - Snap Cap: 1.5 ml, 5 ml, 14 ml tubes
- Preferred sample volume is between 2-5 ml
  - Do not fill the tube completely full, especially if freezing the sample
  - Fluid will expand upon freezing and crack the cap seal, resulting in leaking samples.
- Check that the cap is securely closed; snap cap is snapped and screw cap is tightened
  - 5 ml snap cap tubes need to be double snapped
- Label tubes/wipes consecutively (ex: Tube #1-10, or #21-60).
  - For 1.5 ml tubes: number the top of the tubes

- For all other tubes: number the side of the tubes
- Record individual Animal IDs on the submission form next to the corresponding Tube #.
- Do not include Animal IDs on the tube label as this can cause confusion. Following these labeling instructions will greatly expedite sample processing.

Samples should be collected following the instructions in the [Oral Fluid Sampling PDF](#).

## For rope samples

- **Determine the number of samples that you need to collect.** Please contact the VDL if you need guidance on how to determine this number.
- **Determine which pens to sample.** For diseases like influenza, where the virus is only detectable for approximately 1 week, it is important to sample pigs that are in the early stage of infection. This may be the pigs in the pen next to the ones with the most obvious clinical signs. If you are performing routine surveillance, then you should spread the samples throughout the barn. If you wanted to sample 6 pens in each barn, first divide the total number of pens by 6. Then count off each pen in order and sample accordingly. For example, if there are 18 pens, sample every 3rd pen (Figure 1). If there were 40 pens, sample every 6th pen as follows: 6, 12, 18, 24, 30 and 36. Figure 1. Diagram showing which 6 pens to sample in a barn containing 18 pens.



- **The recommended ropes are three-strand twisted, 100% cotton and 1/2" to 5/8" diameter.** Cotton is an absorbent material and will hold the most oral secretions. Do not use nylon or poly blend ropes, as they are not absorbent and may cause cuts in the gingival tissue.
  - These ropes can be purchased by the foot at some hardware stores, Farm and Fleet stores and online ([www.webriggingsupply.com](http://www.webriggingsupply.com) and [www.knotandrope.com](http://www.knotandrope.com))

by the foot or 600-foot reel. A complete collection kit is also available from ITL Animal Healthcare.

- If you have difficulty obtaining cotton ropes you can use NEW cotton tube socks instead.
- **Do not reuse the ropes/socks.** However, if you don't get enough fluid, you can use the same rope/sock in the SAME PEN to collect more oral fluids.



- **Suspend the rope in the pen.** The rope should be suspended within a clean area of the pen so that it is easily accessed by several pigs at the same time (Figure 2a). The rope should be tied to a sturdy gate where several pigs are able to reach it, but try to avoid tying the rope near waterers and feeders. The rope should be long enough to reach the shoulder of the pigs, but should be trimmed if longer to avoid fecal contamination. Let the pigs chew on the rope for 30 minutes.
  - **Take samples at times when the animals are most active, and are more likely to interact with the rope.** This is usually in the morning hours.
  - If you have difficulty getting the pigs to chew on the rope the first time, you can entice them by shaking the rope and getting them to play with it or by flavoring it with soda, honey or sugar water.
  - **For nursery pigs, untwisting the rope into smaller strands makes it easier for them to chew on it.** The rope will untwist on its own when finishers and breeding stock chew on it.
  - **Maintain the novelty of the ropes.** Only put ropes in pens when collecting fluid and do not leave them in for long periods of time.
- **Wring the sample out of the rope into a plastic bag.** Hold the dry end of the rope with one hand and insert the wet end of the rope into a clean plastic bag (Figure 2b). Twist the rope inside the bag to extract the oral fluids. To avoid cross contamination, change gloves between samples.

- **Cut a corner of the plastic and pour into the tube.** Since the large particles will sink to the bottom and account for a large portion of the sample, try to collect at least 5 ml of oral fluids (Figure 2c). Be sure to label the tube with a pen and barn number if you want it for future reference.
  - **Do not send fluids in whirl paks.** Samples sent in whirl pacs may be subject to additional handling charges.
- **Samples that are not tested within 24 hours of collection should be immediately frozen.**
- **Pooling of samples is not recommended.** Oral fluid samples are already a pool of several pigs; pooling multiple oral fluid samples may result in the dilution of the pathogen of interest and a false negative result.
- **PCR positive results indicate the presence of the virus or bacteria being tested.** However, a positive PCR result does not indicate whether the pathogen is still viable.

## Packing and Shipping

- Please complete a submission form for each farm site being tested. Please label all sample tubes with a unique identifier and include these on the sample submission form.
- Samples that are not tested within 24 hours of collection should be immediately frozen for the best preservation.
- Place tubes in a Ziploc bag or in a serum shipping container within a plastic Ziploc bag. Cushion in between samples with bubble wrap, newspaper or paper towels. Please do not use styrofoam peanuts.
- Ship samples on ice packs in an insulated leak-proof transport container.
- If you are sending glass collection tubes you **MUST** send in a padded, leak-proof container, **NO ENVELOPES!!!**
- Ship to arrive within 1-5 days to the address below. Shipment should be scheduled so that it will **NOT** arrive during a weekend or holiday period.

If you are shipping samples from outside the United States, please review these USDA Guidelines for Importation.