

# Oral Fluid Prognostic Profiling

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## Background

Collection of saliva samples can be easily accomplished by hanging a particular type of cotton rope in pens of growing pigs or stalls of sows or boars. Depending on the laboratory, saliva samples can be analyzed for several viruses and bacteria by PCR (agents) and ELISA (antibodies).

## Supplies

1. Carthage Veterinary Service, Ltd. has the specific rope precut and in a kit so that you can easily and correctly complete the collection and submission of saliva sample.
2. Kits include rope, Ziploc bags, conical tube, and sample submissions forms.



## Sampling

1. The number of pigs or pens sampled is based on the statistical number to achieve a target assessment of prevalence. Sampling numbers vary depending on population and diagnostic strategy.
2. Sample size calculations for specific pathogens have not been established. Field studies have shown that sampling six pens in 1,100 head wean-finish barns every two weeks detected PRRSV, PCV2 and SIV.
3. To effectively detect pathogens, sample pens spaced throughout the unit.

## Grow/Finish and Wean-to-Finish

### Collection

1. Collect in the mornings – pigs are more active.
2. Tie the precut cotton rope in a clean area of the pen away from feed and water. Hang rope at shoulder height of the pigs. Be sure that it is accessible to the pigs.
3. Securely fasten the rope to the gate.
4. Allow the pigs to chew on the rope for 20 minutes.
  - 4.1. Pigs the first 4 weeks post weaning often are more reluctant to be attracted to the rope. These steps can be used:
    - 4.1.1. Sweeten rope with sugar or milk replacer. Can spray rope with water to get a little wet so sugar or milk replacer will stick. Do not saturate because that will dilute the oral fluid sample.
    - 4.1.2. Unbraid rope.
    - 4.1.3. Leave for longer than 20 minutes. May have to squeeze out and put rope back in if not enough fluid. Need a minimum of 2.5mls of fluid.
    - 4.1.4. Get pigs up in pen and push towards rope if possible.
5. Collect 2.5mls of saliva as a minimum.



### ***Sample Handling***

1. Put the rope back into the Ziploc bag. Squeeze the rope to remove all the fluid.
2. Cut a corner of the plastic bag and drain the contents into the 50ml conical tube. Need 2.5mls of sample for laboratory.
3. Place samples in refrigerator and keep cool or freeze. Return the samples to the diagnostic lab. Be sure to include ice packs to keep the samples cool in transit.
4. Do not pool oral fluid samples.
5. Remove and dispose of ropes after each use.



### **Summary**

- Prognostic profiling relies on testing oral fluid samples at approximately 2 week intervals.
- PCR-Positive results reflect active circulation of pathogens in the population.
- PRRSV ELISA detects the antibodies in oral fluids.