Oral Fluid Collection for PRRS Testing

Video prepared by the Center for Food Security and Public Health.

1. Suspend a length of cotton rope in a location accessible to the pigs. Ropes should be placed in a clean area of the pen and not in close proximity to water or feed. Cotton rope is recommended because it is highly absorbent. Use 1/2" (1.3 cm) rope for nursery pigs; 5/8" (1.6 cm) rope for grow-finish pigs. A knot in the top of the rope secures it in place during collection.

2. Hang rope shoulder high to the pigs. The pigs deposit oral fluids as they chew the rope. In active pens, 20-30 minutes is sufficient sampling time. Suggest 20 minutes for 55 lb pigs and 10-15 minutes for grow-finish pigs to prevent destruction of the rope.

3. It is important that several pigs chew on the rope. Dominant pigs can sometimes take charge of the rope and the result is that the test is actually only on a couple of pigs. The barn staff should watch the pigs as they chew and mark each pig that chews and drive away the dominant pigs to allow other pigs to chew the rope. The rope location can be moved for the same reason listed above.

4. Extract oral fluids from the rope. Insert the bottom (wet) end of the rope into a clean large Ziploc bag. Note: it is important to not have the rope at the bottom of the bag as it will be hard for the saliva to drip out. Squeeze the rope so that the fluid accumulates in one corner. Once you have 3ml or greater of the saliva, remove the rope and mix the saliva in the bag by shaking back and forth.

5. Cut a corner of the plastic with clean scissors or a clean knife and drain the contents into a sample tube leaving ¾ inch from the top. Note: do not over fill the vial as it will be hard to place the cap back on. Label the tube. Sample must be refrigerated immediately.
Protocol
Collection of oral fluids

Materials required:
- 100% cotton cord
- Polypropylene cord (baler cord)
- Ziploc bags (one per sample)
- Clean knife or scissors
- Sample tube(s) (Vacutainer)
- Pencil marker
- Hooks, if needed

(1) Attach the cotton cord (36 inches long) to the polypropylene cord. The knot must be tight enough so that the cotton cord does not slide out and fall on the floor.

(2) Attach the polypropylene cord to a solid support on the ceiling; a support screwed to a wooden beam is sufficient. If there is no such support, screw a hook into the beam. The cord must be installed as far away as possible from sources of food and water.

(3) Adjust the height of the cotton cord at shoulder height of the animals. The cord must not touch the floor.

(4) Let the animals chew on the cord for about 20 to 30 minutes (longer for smaller pigs). Do not let the animals destroy the cord!

(5) Use clean gloves to hold the cord containing the saliva. If there is more than one sample to be collected,

(6) Place the wet portion of the cord in a clean Ziploc bag

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Protocol
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change gloves between samples.

and press the cord to force out the liquid soaked in it.

(7) Cut a corner off the bag with clean scissors or a clean knife.

(8) Pour the liquid into a sample tube.

(9) Correctly identify the tube.

(10) Place the tube in a clean Ziploc bag and refrigerate as quickly as possible. Contact your veterinarian to send the samples to the laboratory.

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