Collecting Oropharyngeal Swabs for High Pathogenicity Avian Influenza (HPAI) Surveillance

2010
Step 1: Collect Needed Supplies

- **Appropriate Personal Protective Equipment** - In addition to wearing clean coveralls and boots, you should wear gloves and you may want a mask, goggles, and/or head cover.

- **Sealable Plastic Bags** - For holding items like BHI broth tubes and scissors.

- **Disposable Plastic Trash Bags** - Used to provide a clean working surface and also for collecting trash and discarded chickens after sampling.

- **Duct Tape**

- **Permanent Marker and Tape** - For labeling BHI broth tubes.

- **Scissors** - One clean pair per house.

- **Dacron or Polyester Swabs with Plastic Shafts** - Cotton tip and/or wooden shaft swabs should not be used, as they may contain material that will interfere with testing.

- **Paper Towels**

- **Virkon® S and Sprayer** - The Virkon® S needs to be mixed up every 7 days.

- **BHI (Brain Heart Infusion) Broth Tubes** - Keep refrigerated before using. You will need one tube per house. Before using, ensure the broth is a clear amber color (discard if it is discolored or cloudy). BHI broth tubes expire in 18 months when stored at refrigerator temperature. Label tubes with house number or ID.

- **A Small Cardboard Box** - A shoebox works well. This will be used as a holder for the BHI broth tubes and Dacron swabs.

- **Laboratory Forms**

- **A Cooler and Cold Packs** - To store samples until they are delivered to the laboratory.
Step 2: Setting Up Sampling Area

1. **Cover tailgate with plastic trash bag** - Secure the bag in place with duct tape.

2. **Use duct tape to hang a trash bag on the right and left side of the tailgate** - One for trash and one for discarded chickens.

3. **Use a shoebox and scissors to make a tube and swab holder. Make three rows:**
   - Row 1 – A hole for each house will hold the labeled, unused BHI broth tubes.
   - Row 2 – A hole for each house will hold the BHI tubes after sampling.
   - Row 3 – Will hold unused Dacron swabs.

4. **Place the BHI broth tubes and swabs in the holder**
   - Label the broth tubes with the house ID or number. It might be helpful to also label the box holder with the house ID or number.

Example of tube and swab holder
Step 3: Collecting Oropharyngeal Swabs

1. Put on clean gloves

2. Lay out five fresh mortalities from one house

3. Cut the angle of the beak with a clean pair of scissors - Lengthen the incision with your thumb to improve exposure of the glottis and palatine cleft.

4. With your left hand, grasp the comb and wattles and pull them together behind the head

5. Swab the glottis and palatine cleft - Collect as much mucus as possible.

6. Swirl the swab in the labeled BHI broth tube - Before removing the swab, press the cotton tip against the inside of the tube to squeeze out as much fluid as possible.

7. Discard the used swab and the chicken

8. Repeat for the next 4 chickens from the house

9. Clean the work area
Step 4: Appropriately Package/Deliver Samples

1. **Fill out the laboratory form** - Include farm name, premises ID, date, time, and number of samples being submitted.

2. **Place tubes and laboratory form in a sealable bag** - Ensure the tubes are labeled with house number or ID.

3. **Spray the bag with Virkon® S**

4. **Place the bag in a cooler with cold packs**

5. **Deliver to the lab** - Delivery vehicles should go through a car wash before heading to the diagnostic laboratory.