

TVMDL maintains two laboratories dedicated to poultry diagnostics, one in Center, Texas and the other in Gonzales, Texas. Veterinarians, with assistance from TVMDL, service the Texas animal health industry by certifying poultry are healthy. With the help of TVMDL, veterinarians can ensure the best and safest sample collection technique when collecting samples from a live-bird. The two most common samples are a tracheal swab and a blood sample to test poultry for diseases like avian influenza.

Test	Test Code	Sampling Source	Preferred Specimen	Sample Collection	Labs
Avian Influenza Matrix (rtPCR)	1242	Gallinaceous birds	Trachea or oropharyngeal swab	Pooled samples or moistened swab	All
Avian Influenza Matrix (rtPCR)	1242	Wild/captive waterfowl	Cloacal swab	Pooled samples or moistened swab	All

Supplies Needed

To perform a swab sample collection for both pooled and non-pooled samples use a sterile, polyester (e.g. Dacron) swab with a plastic shaft and transport media (e.g. 3 ml of brain heart infusion (BHI) broth or sterile saline) in a red top tube or a sterile tube with no additives.

Swabbing Techniques

Tracheal Swabs

Timing the opening and closing of the larynx helps to ensure the insertion of the swab into the trachea. The main concern when swabbing is to avoid swabbing just the mouth, pharynx, or esophagus.

To properly control the bird during swab collection, place the thumb and index finger on either side of the beak, helping to hold the mouth open. Then, insert the swab into the trachea, lightly twist, and remove it, then place the swab into the transport media/sterile tube.

Oropharyngeal Swabs

Restrain the bird using the same method described above. Introduce the swab into the bird's mouth and gently rub the swab around the tracheal opening, along the bird's choana and through the choanal cleft on the upper palette. Remove the swab from the bird's mouth and place into the transport media/sterile tube.

Cloacal Swabs

Restrain bird with a secure hold. Gently insert the head of the swab into the cloaca through the vent to an appropriate depth. Apply gentle pressure and lightly twist the swab to ensure contact with the mucous membranes. Remove the swab and place into the transport media/sterile tube.

Individual Samples

Place the swab in a tube with one drop of saline Label the tube and prepare the sample for transport. Use one swab and one tube per bird.

Pooled Samples

After swabbing, place the swab in sterile saline or BHI broth and swirl vigorously. Next, remove the swab from the approved media and press against the sides of the tube to express any adsorbed liquid. Cap the tube and dispose of the swab. Use one swab per bird, see below for specifics by species.

*How to pool samples for **waterfowl**:*

1. Fill red top tube or tube that does not have any additives with 3 mL of one of the approved medias.
2. Swab bird.
3. Place swab in media and swirl vigorously.
4. When removing the swab from the tube, press the swab against the side of the tube to express any absorbed liquid.
5. Dispose of swab.
6. Repeat for up to five birds per tube.
7. Cap tube and place in refrigerator until sent to the laboratory for testing.

*How to pool samples for **gallinaceous birds**:*

1. Fill red top tube or tube that does not have any additives with 5.5 mL of one of the approved medias.
2. Swab bird.
3. Place swab in media and swirl vigorously.
4. When removing the swab from the tube, press the swab against the side of the tube to express any absorbed liquid.
5. Dispose of swab.
6. Repeat for up to eleven birds per tube.
7. Cap tube and place in refrigerator until sent to the laboratory for testing.

For more information, visit tvmdl.tamu.edu or call of TVMDL's four locations.