

# The Chick Papers

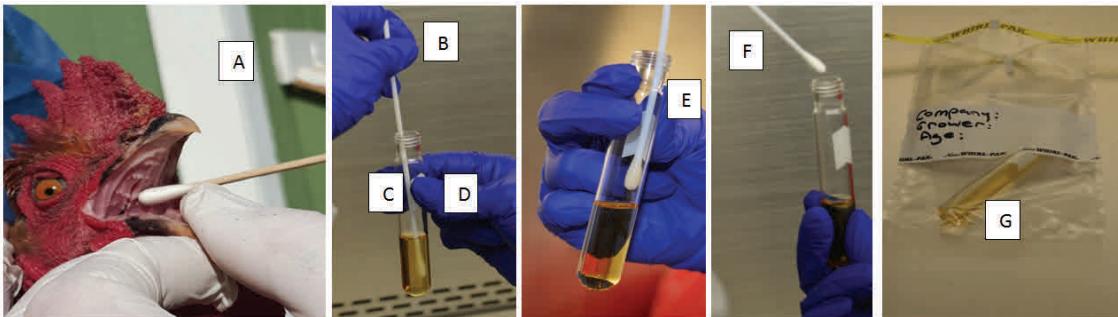
A Monthly Newsletter from the Georgia Poultry Laboratory

December 2016

## Field Sampling for the Antigen Capture Immunoassay (ACIA)

The NPIP recommendation is to test eleven birds per flock for all broiler and breeder (spent hens) going to the processing plant within 14 days of the processing date. Pre-processing testing can be accomplished by two categories of tests; antibody detection and agent detection. Antibody detection includes ELISA (enzyme linked immunosorbent assay) and AGID (agar gel immunodiffusion). Agent detection is accomplished with PCR (polymerase chain reaction) and ACIA (antigen capture immunoassay). All are approved testing methods with serology being the most popular and less costly testing method. The ACIA is a 15 minute test which can be used as an alternative to serology in emergency situations when there is no time to submit and test blood. The correct collection and pooling method for ACIA is the focus of this article. GPLN uses Vet Scan by Abaxis as the ACIA testing kit. The table below provides some general guidelines for collecting swab samples.

Item	ACIA Components	Recommended	Comments
A	Tissue sampled	Trachea, choanal cleft, oropharyngeal	
	# birds pooled per tube	Up to 11	Can have 2 tubes with 6 birds pooled per tube
	Birds sampled	Sick or fresh dead	Do not use normal, random, and healthy birds <sup>a</sup>
	Swabs	Cotton, rayon	Never use swabs containing calcium alginate
B	Swab shaft	Plastic, foam, polyester	Do not use wood shafts containing formalin
C	Media	5.0 mls BHI	BHI tubes supplied to commercial customers as diagnostic kit
D	Elution of swab	Swirl & rotate swab in media 3 times minimum	Swirl & rotate swab vigorously when in media
E	Pressing out residual media	Press swab against side of tube when exiting	Minimizes original BHI volume loss
F	Discarding the swab	Discard swab as farm waste	Never leave swab inside the BHI tube
G	Place swab in sample bag	One bag per tube representing one flock	Write company, grower, & age of bird on the bag
	Transport tubes on ice packs	Store on ice packs or in refrigerator up to 96 hours	Freeze if held longer than 96 hours



### Summary:

ACIA is to be used only in circumstances when there is not enough time for serum to be collected and tested before birds are processed. The ACIA is very quick to complete and GPLN will be glad to coordinate the testing when companies have the need. Tracheal swabs which include the choanal cleft from fresh dead or sick birds are the samples of choice. Ideally, 11 birds are collected per tube containing 5.0 mls BHI. Contact GPLN at 770-766-6810 or 706-889-6225 if you have any questions.

### Notes:

a = sick or fresh dead birds would likely contain sufficient number of AI virions to be detected by the Vet Scan detection kit, whereas healthy, normal, birds might not. Minimum requirement (virus load) for a positive Vet Scan test is approximately 1,000 virions.

## Tours and Visitors

- December 1: Dave Ogle tour
- December 2: Athens Diagnostic Lab visit and tour
- December 7: Dr. Honeger tour
- December 8: National Veterinary Services Laboratory tour
- December 12: USDA Foreign Services Officers tour
- December 19: Jacob's Eye Group and Clayton County representatives tour



Representatives from Athens Diagnostic Lab trained on Receiving procedures and toured the lab.



Representatives from Jacob's Eye Group and Clayton County toured the lab.



Visitors from NVSL enjoyed a foaming demonstration during their visit to the lab.



## Model Update

The model is progressing well and is really starting to take shape! Hopefully within the next three weeks, the model will come to life from the start of the tour in the North Georgia mountains all the way to the Port of Savannah. We have contracted artist Linda Eichhorn (pictured on right) to help us meet the goal of being ready for tours in late January.



## GPLN Events



Adriana Guzman joined the GPLN team on December 7 as a part-time Necropsy technician. She will be working with Dr. Davis.



Employees enjoying food and festivities at the GPLN Holiday Party on December 15.



John Groves and Tyler Reed performing a training demo on the MAK depopulation unit on December 22. December 15.