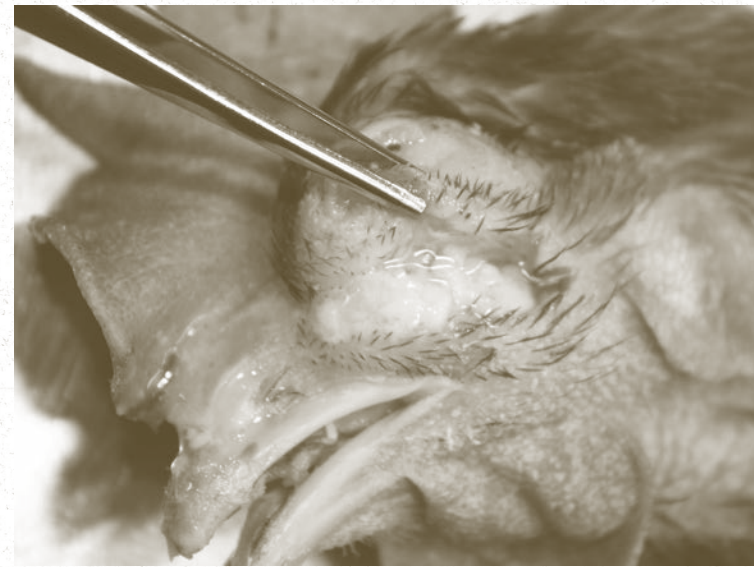


# INFECTIOUS CORYZA

Infectious coryza is a highly infectious bacterial disease of chickens caused by *Avibacterium paragallinarum*. The disease is characterized by inflammation of upper respiratory tract and sinuses, i.e., nasal discharge, sneezing, and swelling of the face under the eyes, and a drop in egg production in laying birds.

**All ages of chickens are susceptible to infectious coryza infection.**

Diagnosis by bacterial culture is challenging; thus, often molecular testing (e.g. PCR) is requested. In anticipation of outbreaks in the Midwest and to facilitate diagnosis for commercial poultry producers across the country, the ISU VDL has an infectious coryza PCR available upon request.



## PREVENTION STRATEGIES INCLUDE:



**GOOD MANAGEMENT PRACTICES**



**RIGOROUS SANITATION**



**COMPREHENSIVE BIOSECURITY PLAN**

Outbreaks of infectious coryza typically occur as a result of mixing flocks. Vaccination is a possibility, but multiple vaccinations are needed to be effective.



**IOWA STATE UNIVERSITY**  
**Veterinary Diagnostic Laboratory**  
1850 Christensen Drive  
Ames, IA 50011-1134

**IOWA STATE UNIVERSITY**  
**College of Veterinary Medicine**

**Veterinary Diagnostic Laboratory**

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Spring – 2021

# NEWSLETTER



## Curt Thompson Diagnostic Bacteriology

Curt began working at the ISU VDL in 2006 as the Molecular Bacteriology Supervisor. In 2008, he transitioned into a Diagnostic Bacteriology Supervisor where he currently serves today.

The best part of Curt's job is working with students and staff to build their careers as microbiologists, and he enjoys helping diagnose diseases that help clients treat and save their animals.

Curt was born in Newton, Iowa and grew up on a farm near there where his family grew corn and soybeans. When he was back home, his family raised cattle, hogs, and sheep. Curt also had a number of rabbits that he would raise and sell. When he was young, he hunted and trapped and helped his dad on the farm. Curt attended Iowa State University where he received his Bachelor of Science in genetics and a minor in microbiology before beginning his first job with ICI Seeds in Slater, Iowa where he performed RFLP analysis on corn.

Prior to the ISU VDL, Curt also worked at the State Hygienic Laboratory (SHL) for 13 years where he was the supervisor for molecular development and diagnostics. His primary duties were to help bring in and validate approximately 20 PCR assays as well as design and develop several PCR assays all for human disease testing. During his time at the SHL, he attended graduate school at the University of Iowa and received a Master of Business Administration degree.

Today, Curt lives on an acreage near Mitchellville with his wife Nathamon. Together, they raise purebred hunting Labrador Retrievers. He has two daughters, Amber and Ashley, who both serve in the US Airforce as Airmen, and two step-sons Nont and Pum. They enjoy being outdoors fishing, hunting, raising lab puppies, woodworking, and home remodeling projects.

# JOHNE'S DISEASE

The Iowa State University Veterinary Diagnostic Laboratory offers the below testing for Johne's Disease:

Johne's Disease is caused by *Mycobacterium avium* var *paratuberculosis* (MAP). The most common route of infection is through infected feces. It is a slow progressing disease in which the bacteria is ingested early in life, absorbed through the intestinal wall and then hides in the animal's white blood cells. The bacteria thrives and multiples without being exposed to antibodies which allows it to spread and cause chronic inflammation. This inflammation leads to weight loss, severe diarrhea, and is eventually fatal in cloven-hoofed animals.

### Direct Fecal PCR

for the detection of *Mycobacterium avium* subsp. *paratuberculosis* (MAP) DNA

#### Sample Types: Feces

- Allows pooling of up to 5 fecal samples
- Results are available same day/next day
- Test is highly specific for detecting MAP DNA and is able to discriminate between MAP and other fecal *Mycobacterium* spp.

### Pooled Fecal PCR

(for *Mycobacterium avium* subsp. *Paratuberculosis*)

#### Sample Types: Feces

- Allows pooling of up to 5 fecal samples
- Results are available same day/next day
- If a pool is positive or suspect, individual testing of samples in that pool can be performed
- Test is highly specific for detecting MAP DNA and is able to discriminate between MAP and other fecal *Mycobacterium* spp.

### Antibody testing

#### Sample Types: Serum, Plasma, Milk

- Test is performed twice weekly, so result turnaround will vary depending on day of receipt at VDL.
- May help identify positive cattle that are not currently shedding or that may be shedding MAP intermittently in feces

### Sample Collection Guidelines

1. Collect fecal samples directly from the rectum; do not collect ground or floor samples.
2. Use a separate clean sleeve/glove to collect each individual sample (moisture/lubricant may adversely affect the quality of the sample).
3. Place a minimum of 10 grams (1/2 ounce or 1 tablespoon) into a clean, plastic container;
4. Label container with animal ID and premise ID if available.
5. Place sample containers in a cooler with cold packs and transfer samples to refrigerator or submit samples to the laboratory. Do not freeze samples. Include ice packs to keep samples cool during shipping. Samples should arrive at the lab within 96 hours of collection.
6. For pooled testing, up to five individual samples from animals of similar ages/lactation/groups can be pooled. Do not pool yourself. Indicate pooling on submission form for VDL technicians to perform.

### Johne's Disease Control Program

The Iowa Department of Agriculture and Land Stewardship (IDALS) is participating in the National Johne's Disease Control Program, which provides guidelines for detecting infected animals and minimizing risks to herd mates through management practices. The goal of the Johne's Disease Program is to certify Johne's negative herds according to USDA definitions. Participation in the program is completely voluntary and the confidentiality of test results will be maintained within the limits of Iowa law. For more information, please contact Dr. Gary Eiben (Iowa Johne's Disease Coordinator) at IDALS (515-669-6095) or your state district veterinarian.

#### ISU VDL Contact Information

Please feel free to contact Dr. Drew Magstadt (magstadt@iastate.edu, 515-294-1950) at the ISU VDL with questions/concerns regarding sampling, diagnostic testing, and results or to discuss strategies for herd evaluation.

## ANNOUNCEMENTS:

### Upcoming University Holidays:

Memorial Day — Monday, May 31st

HATS will be receiving drop-offs as normal on Monday, May 31st



## Thank you for your service

Congratulations to the following ISU VDL faculty and staff on their retirements in 2020 and 2021! These individuals have been tremendous assets to the VDL for a number of years. We wish them blessings and happiness as they embark on their next adventures. Thank you for your service to the ISU VDL.

#### Recent Retirements ▼

**Brenda Schwarz**, Bacteriology

**Daniel Schultz**, Analytical Chemistry Services

**Paula Imerman**, Analytical Chemistry Services

#### Future 2021 Retirements ▼

**Dr. Kent Schwartz**, Pathology

**Dr. Greg Stevenson**, Pathology

**David Frisk**, Clin Micro/Bacteriology

**Chris Lee**, Business Office

**Chris Meraz**, Business Office