

Illinois Department of Agriculture Animal Disease Laboratory

Laboratory Notes

February 1, 2015

Meet the Staff

Jason Bergren, BA, is a microbiologist in the bacteriology section of the laboratory.



He started working for the Animal Disease Laboratory in June of 2003. Jason has a Bachelor of Arts degree in physical geography from the University of Illinois in Urbana. He previously worked for seven years at Farmland Foods in Monmouth, IL as a microbiologist/food safety and quality assurance assistant. Jason grew up in Monmouth, IL and still lives there with Annie, his wife of 12 years, and three sons Anders (8), Lars (6), and Henrik (4). The boys have three distinctly different personalities which keeps parenting interesting. His golden retriever, Molly, adds to the fun. Jason enjoys spending time and traveling with his family; any outdoor activities, jogging, fishing, and all types of sports.

New tests

Since the virus neutralization test will not differentiate between antibodies against transmissible gastroenteritis virus (TGEV) and porcine respiratory coronavirus virus (PRCV), the Laboratory has ELISA tests that will differentiate between the two infections. This is useful when evidence of TGE seronegativity is important for exports. The test is run on Tuesdays and Thursdays and costs \$6.00 per sample for TGEV and \$6.00 per sample for PRCV.

PED Update

Not much has changed concerning the swine enteric coronavirus diseases since the last newsletter. Veterinarians, owners, and laboratory personnel are still required to report incidences of SECD to the office of the state veterinarian or to the office of the Federal Assistant District Director. In order to test for SECD infections, USDA *requires* a premise ID for the premises of the producer. [For information on obtaining a premises ID, please contact the office of the state veterinarian.] Confirmed positive herds will be required to develop and submit a Herd Monitoring and Management Plan. If the disease meets the clinical standards for SECD, a federal subsidy may be available for initial testing and monitoring of the herd.

Meat Safety Testing

The Animal Disease Laboratory food safety section continues to offer meat testing, specifically for *Escherichia coli* 0157:H7, non-0157 Shigatoxin-producing *Escherichia coli* (6 types), *Salmonella* sp., *Listeria monocytogenes*, and *Listeria* sp. The lab just added the capability of doing testing for *Campylobacter* on raw poultry products. The laboratory tests meat samples for the State Bureau of Meat and Poultry Inspection and also for private facilities. The testing follows the Federal procedures which include both a screening test by PCR and confirmation tests for each pathogen.

Equine Infectious anemia

EIA testing is now done at the Animal Disease Laboratory.

The agar gel immunodiffusion test (Coggin's test) is \$8.00 and takes 24 hours to run. The cELISA test for EIA is a one-day test and can usually be done within one day of receipt. The cELISA test is also \$8.00 per sample. The validated original test reports are returned by mail.

We were recently audited by the USDA on our EIA testing and accessioning procedures. It was emphasized that it is extremely important that the paperwork for EIA testing is filled out completely and accurately. The form should have no blanks; all boxes should contain an entry, a line, or NA. The narrative portion must be filled out as well as the drawing portion and the narrative description must match the drawing. Samples submitted with incomplete paperwork will be held and you will be notified of the problem. Correct paperwork will be required before testing is done. We were also informed that federal regulations require that we give each sample a unique accession number and there will be a \$2.00 accession fee added (per statute) per horse/sample to cover costs of paperwork and reporting.

CWD Testing

The histology laboratory and pathologists are currently very busy testing samples from hunter-killed deer submitted to the laboratory by the Illinois Department of Natural Resources (IDNR). Each year for the past 10 years, the Animal Disease Laboratory has cooperated with the IDNR to test hunter-killed deer samples for chronic wast-

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ing disease of deer by immunohistochemistry. We have received as many as 8,000 samples in a given year. The testing requires trimming a section from each submitted retropharyngeal lymph node, processing the specimen, embedding and sectioning the specimen, and immunostaining each specimen. Finally each section is examined microscopically by a veterinary pathologist for the presence of positive staining. Lymph node and obex from the wet tissue from positively staining samples are retrimmed and restained and examined to ensure that the correct specimen is designated as positive. The protocols used have been developed by the Pathobiology section of the National Veterinary Services Laboratory and are approved by the National Animal Health Laboratory Network. As of January 1, 2015, 481 wild free-ranging deer have tested positive for CWD since 2002. No positive animals have been found in the captive deer herds in the state. For more information about CWD of deer, see the IDNR CWD website at <http://www.dnr.illinois.gov/programs/CWD/Pages/default.aspx>

Avian Influenza

Highly pathogenic avian influenza (HPAI) has been detected in wild waterfowl populations and some back-yard poultry flocks in the Northwestern United States. Two subtypes of HPAI have been detected: H5N2 and H5N8. The H5N2 strain is >99% similar to a strain of avian influenza that has been circulating in the Fraser Valley of British Columbia in Canada. The H5N8 strain appears to be a progenitor for the H5N2 virus as it has over 99% relatedness to

HPAI H5N8 circulating in Korea. Highly pathogenic avian influenza in migrating waterfowl constitutes a significant risk to backyard poultry and could impact commercial poultry. Highly pathogenic strains of avian influenza produce fatal infections in poultry with mortality reaching 100% with some strains. Avian influenza should be strongly suspected when high mortality occurs in flocks of chickens or turkeys. Avian influenza is a reportable disease.

Laboratory forms

The cost of shipping today is skyrocketing. Some packages we receive have \$50.00 or more in shipping costs alone. This, plus the time it took you to procure the samples makes today's laboratory submissions very expensive, even before laboratory costs are accrued. Please take just a few extra minutes and fill out the submission form carefully and completely. Remember that we are blind; the only information we have about the situation is what you tell us. Imagine how difficult it would be to diagnose a problem if you didn't even know the signalment (species, age, breed, sex, etc.) of the animal. Remember, the job's not finished until the paperwork is done!

Shipping labels available

The laboratory still provides UPS shipping labels upon request that are of sufficient value to submit most diagnostic samples. Contact Terri Howard at 309 344 2451 to request the labels.

Laboratory Calendar

Please be aware that, along with all other state agencies, the diagnostic laboratory is closed

on the following days:

New Year's Day
Martin Luther King Day
Lincoln's Birthday
President's Day
Memorial Day
Independence Day
Labor Day
Columbus Day
General Election Day
Veteran's Day
Thanksgiving and the day after
Christmas Day

As always, submissions can be left at the lab on holidays by placing them in the night depository on the northeast side of the building, which has outside access to our walk-in cooler. This night depository door is always available should you or a client desire to deliver submissions after hours, on weekends, or on holidays.

Forms on Website

If you haven't visited our updated website lately, please do so. The Agriculture website has been overhauled and updated with lots of helpful information. The form for serology submissions, commodity requests, and our standard submission form are all there in fillable formats. Also on the website is our Animal Disease Laboratory Tests and Fees schedule which will give you an idea of turn-around time, sample(s) to submit, and cost per test. Go to <http://www.agr.state.il.us/laboratory-services/> Remember that numbered commodity items (tags or certificates) and tuberculin must be assigned to an individual licensed accredited veterinarian rather than just to a practice.