

Illinois Department of Agriculture Animal Disease Laboratory Laboratory Notes

May 1, 2014

Meet the Staff

Susan Vinson is the supervisor of the diagnostic bacteriology laboratory and the food pathogen testing laboratory. Susan has been with the laboratory for almost 35 years and has served in various positions in the laboratory including Virology/Serology lab; lead worker in the serology laboratory and, since 2001, supervising the bacteriology department. Susan has a bachelor's degree in microbiology from the University of Iowa. When not at work, Susan enjoys traveling to visit her family. Susan has one daughter, Marissa, who is studying actuarial science at the University of Illinois. When asked why she has not retired Susan will say that she truly loves her job especially her co-workers and the clients the laboratory serves.



New tests

Tritrichomonas foetus- A polymerase chain-reaction (PCR) test for *T foetus* was brought on line beginning in March. Samples for the PCR test should be submitted in TF Transit Tubes rather than In-Pouch™ TF pouches. The laboratory has the TF Transit Tubes on hand and can supply them to you (\$8.00 each) as needed. Some states are satisfied with a single negative PCR test for importing an animal, but still require three negative In-Pouch™ TF samples for microscopic examination. Thus the PCR test can save you from having to sample

the animal two more times. Each state must be consulted for their specific entry requirements. The test will cost \$35.00. The microscopic examination test will still be offered upon request. The microscopic examination test requires samples submitted in In-Pouch™ TF pouches (\$8.00 each). With either test, the inoculated sample tubes or pouches should be protected from heat and cold and submitted at near room temperature as soon as possible after collection.

Neospora caninum- A *Neospora caninum* cELISA test was also brought on line in March. The test detects antibodies against *Neospora caninum* in bovine serum. If the test is positive, antibodies against *N caninum* are present in the serum. According to Haddad, *et al.*, "All serological results for *N caninum* should, however, be interpreted with caution, because the immune system is not static and antibody levels fluctuate, particularly for parasites that form cysts that wall themselves off from the host's immune system and can recrudescence with immunosuppression. A single serum sample from an individual cow may not reflect her infection status accurately, particularly on farms without a history of *N caninum* abortions. On these farms, only consistent results on multiple tests during different years or seasons of the year should be used to make culling decisions, particularly when S/P ratios are close to the cut-off values of the test. For example, congenitally infected heifers that have had a history of positive *N*

caninum titers have had negative titers at calving, while giving birth to a *N caninum*-infected calf. Similarly, cows that abort a *N caninum*-infected fetus may no longer have a significantly elevated titer at the time of abortion." (João Paulo A. Haddad, Ian R. Dohoo, and John A. VanLeewen. *A review of Neospora caninum in dairy and beef cattle — a Canadian perspective*, Can Vet J 46(3); Mar 2005). The test will cost \$7.00 per sample.

H1N1/H3N2 ELISA Tests

IDEXX is discontinuing the production of their H1N1 and H3N2 ELISA products and we will no longer be able to run those tests after our current supply runs out. They are substituting a pan-A influenza ELISA which will no longer differentiate between H1N1 and H3N2 infections, but will detect antibodies to all serotypes of influenza A, including SIV serotypes.

TGEv/PEDv PCR- We are working to bring a PCR test for Transmissible Gastroenteritis coronavirus and Porcine Epidemic Diarrhea coronavirus on line later this summer. This test can use fresh tissue (small intestinal) samples or fecal (cecal) samples for testing and will differentiate between TGE and PED infections in swine. Samples from pigs in the early stages of the infection provide the most diagnostic samples.

Forms on Website

If you haven't visited our website lately, please do so. The Agriculture website has been overhauled and updated with lots of helpful information. The

Laboratory Notes

form for serology submissions, which was updated in March, 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 agr.state.il.us and select *Animals* from the menu banner at the top of the screen. Select *Laboratory Services* from the dropdown menu. 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.

PED Update

Porcine epidemic diarrhea (PED) continues in the news. USDA reports weekly case identifications have been moving downward through March, and as PED may parallel TGE in its seasonal incidence, with warmer weather cases may be greatly reduced. A new coronavirus, swine delta coronavirus (SDCV), has been identified and is described as similar to TGE and PED but possibly less severe clinically. This is a new development and information is still being generated. We are working on implementing a PCR test for PED. It will hopefully be available by August. PED and SDCV suspects will be sent out for testing pending availability of this technology.

Fair Season

It's not too early to begin reminding clients of serologic testing requirements for fairs and other exhibitions. In-state certificates of veterinary inspection

and associated blood tests are good for 90 days.

Expected laboratory turn-around time for serology tests during fair season (May through August) will be *FOUR* working days. If shorter turn-around times are required, submissions will be subject to additional charges.

Computer information

We are trying to make certain that our computer information is up-to-date. Please take a minute and FAX (309 344 7358) or email (AGR.LAB@illinois.gov) your current name, address, telephone number, FAX number, and email address to us. It's hard to maintain an accurate database, especially if we don't hear from you frequently. Please update us anytime you change practices or your contact information changes for any reason. Maintaining an accurate database is important should we have to notify a large group of veterinarians of a problem or outbreak. Additionally, in order to save the State money, we will begin to send out monthly statements by email if at all possible. Those individuals/practices with no email accounts will receive statements by FAX or, if there is no other way, by US mail.

Shipping labels still 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.

Federal EIA Forms

Federal forms for equine infectious anemia testing are on backorder from the federal government. We have a backlog of pending requests for EIA forms that will overwhelm our next shipment, so new orders may be delayed for some time. We will resolve this problem as soon as we begin to receive shipments from the USDA.

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.

Questions and Guidance

Laboratory personnel are always happy to provide guidance on sample collection, preparation, and submission. Don't hesitate to call (309 344-2451) for information or advice.