WVDL FALL NEWSLETTER

October 2025

Wisconsin Veterinary Diagnostic Laboratory

UNIVERSITY OF WISCONSIN–MADISON

Message From The Director

Autumn News From WVDL

Greetings from the WVDL! It's hard to believe fall is here again. WVDL has been busy in Madison and Barron and we are excited to share what is happening in the diagnostic testing and client services sections.

It would not be a fall migration without the risk of highly pathogenic avian influenza in domestic poultry. Unfortunately, Wisconsin did not escape this fall unaffected, and the team has been testing

seven days a week to keep poultry products moving in the southeast part of the state. Wisconsin is scaling back testing to each bulk tank every other month for the national milk testing strategy because of our newly minted “Gold” or disease-free status. We have not had any detections with PCR or antibody testing of milk in Wisconsin dairy cows.

WVDL will hold the annual bovine genetic export meeting on Thursday, December 4th, at our facility in Madison. This meeting is free and will have 4.5 CE credits. The meeting aims to provide best practices for testing, understand the industry's challenges, discuss market expansion, and host plenary speakers for just-in-time hot topics or new research. Please see the link below to sign up and contact us with any questions.

We appreciate you taking the time to engage with our team by reading this newsletter, which helps us better serve all WVDL stakeholders.

Keith

ANNUAL WVDL BOVINE GENETICS MEETING - MARK YOUR CALENDARS

Please mark your calendars for the upcoming Annual WVDL Bovine Genetic Export Meeting held at the WVDL on Thursday, December 4, 2025. More information will be forth coming soon. To secure your spot at the meeting RSVP here: https://forms.gle/NLfKjkfsnq2AdRnf7 . Hope to see you there!

Client Services Update

Whole Blood Sample Collection

Proper collection of whole blood samples is essential to ensure the accuracy and reliability of PCR test results. Recently, there has been an increase in samples submitted with inadequate volume, which has led to the following issues:

- Increased risk of false-negative results due to assay inhibition
- Delays in result turnaround times caused by the need for repeat testing
- Rejection of samples due to compromised quality

Improper collection has resulted in repeat sample processing and testing as well as a delay in testing turnaround times. Samples requiring repeat processing or testing due to insufficient volume may incur an additional testing fee.

To ensure proper sample collection, we have detailed some helpful information.

- Whole blood should be collected in EDTA anti-coagulant tubes for PCR testing and viral isolation. If both tests are required, a tube greater than 5ml or multiple EDTA tubes are needed to ensure sufficient volume for testing.
- It is essential to verify the EDTA tube being used prior to blood sample collection. Tubes from different manufacturers may appear similar in size but can require different blood volumes to maintain the correct sample-to-additive ratio for effective anticoagulation. Always review the tube label to confirm the required sample volume specific to that manufacturer.
- Most manufacturers include a "fill line" as a visual guide to help confirm the correct blood volume has been collected. Additionally, many tubes are designed with a vacuum calibrated to draw the correct volume of blood automatically. Therefore, allow the tube to fill completely to ensure proper anticoagulant effectiveness.

Proper tube selection and complete filling are critical steps in preventing sample rejection, test delays, or inaccurate results due to improper anticoagulation. We appreciate your attention to this matter.

Molecular Diagnostics Update

New Molecular Test Offered at WVDL

***Mycoplasmopsis* (*Mycoplasma*) *ovipneumoniae* Detection in Sheep, Goats, & White-Tailed Deer**

This assay will detect and differentiate the pathogenic *Mycoplasmopsis* (*Mycoplasma*) *ovipneumoniae* from currently considered non-pathogenic *"Mycoplasma conjunctivae*-like" respiratory-associated bacteria types. While considered non-pathogenic, and have yet to be fully characterized, these bacteria have the potential to cause false positive PCR results in testing for *M. ovipneumoniae*.1

M. ovipneumoniae is a respiratory-associated bacterium known for its role in respiratory disease in sheep, goats, deer species, and muskox. This bacterium was long thought to be host restricted to sheep, goats, and muskox (members of the subfamily *Caprinae*), until it was first described in a 2019 publication in healthy moose, caribou, and mule deer, and in mule deer and white-tailed deer with respiratory disease.2 Since that time, several publications have described *M. ovipneumoniae* as a respiratory pathogen in white-tailed deer.3,4,5 While some hosts may carry *M. ovipneumoniae* with no overt clinical consequence (subclinical pneumonia), infections can result in clinical signs ranging from nasal discharge and coughing to severe bronchopneumonia. *M. ovipneumoniae* infection compromises airways allowing for more virulent bacteria (*e.g. Mannheimia haemolytica*, *Pasteurella multocida*, *Trueperella pyogenes*) to colonize the lung resulting in polymicrobial bronchopneumonia with varying levels of morbidity and/or mortality among infected herds. Often by the time euthanasia is elected or death ensues, pulmonary pathologic changes caused by the more virulent bacteria are so advanced that identifying the initial characteristic histopathologic changes of *M. ovipneumoniae* can be difficult to identify. Unlike *Mycoplasmopsis* (*Mycoplasma*) *bovis*, *M. ovipneumoniae* is a particularly fastidious bacterium which results in culture often being an insensitive means of detecting this bacterium. Molecular detection (PCR) provides a valuable

diagnostic tool for detecting *M. ovipneumoniae* in the respiratory tracts of small ruminants, whether investigating the cause(s) of respiratory disease by testing lung tissue or screening animals for carriage and shedding by testing nasal swabs.

If you have questions or would like further information on *M. ovipneumoniae* in sheep, goats, and white-tailed deer, please contact Dr. Maggie Highland at the WVDL.

References:

1. Noll LW, Highland MA, Hamill VA, Tsui WNT, Porter EP, Lu N, Sebhatu T, Brown S, Herndon DR, Grossman PC, Bai J. Development of a real-time PCR assay for detection and differentiation of Mycoplasma ovipneumoniae and a novel respiratory-associated Mycoplasma species in domestic sheep and goats. Transbound Emerg Dis. 2022 Sep;69(5):e1460-e1468.
2. Highland MA, *et al*. Mycoplasma ovipneumoniae in Wildlife Species beyond Subfamily Caprinae. Emerg Infect Dis. 2018 Dec;24(12):2384-2386.
3. Elsmo E, Highland M, Darkow B. Mycoplasma ovipneumoniae in farmed white-tailed deer. AABP Proceedings. Vol. 56, No.2. September 2023.
4. Prentice MB, *et al*. Metagenomic sequencing sheds light on microbes putatively associated with pneumonia-related fatalities of white-tailed deer (*Odocoileus virginianus*). Microb Genom. 2024 Mar;10(3):001214. doi: 10.1099/mgen.0.001214.
5. Smith AC, *et al*. Causes of mortality in farmed white-tailed deer in the midwestern United States, 2004-2023. J Vet Diagn Invest. 2024 Nov;36(6):809-815. doi: 10.1177/10406387241271416.

Serology Update

Salmonella Dublin ELISA Test Now Available Again

We are pleased to inform you that the Salmonella Dublin ELISA test is once again available at WVDL. The test was temporarily unavailable due to a customs-related delay in the procurement of diagnostic kits.

We sincerely thank our laboratory clients for their patience and understanding during this time.

Barron Serology Lab Testing Update for Infectious Bursal Disease (IBD), Infectious Bronchitis Virus (IBV), and New Castle Disease Virus (NDV)

The Barron Lab will be discontinuing ELISAs of non-NPIP chicken testing which includes Infectious Bursal Disease (IBD), Infectious Bronchitis Virus (IBV), and New Castle Disease Virus (NDV). Since these diseases are no longer routinely tested for in layer birds, the Barron Serology Section has experienced a significant decline in requests and will no longer be offering the testing. Please contact the Barron Laboratory at 715-637-3151, if you have any questions.

Changes to WVDL's Equine Infectious Anemia (EIA) Services & Submissions

Starting in January of 2026, EIA test requests submitted via the Federal VS Form 10-11 are increasing to $11.22 per sample. Electronic submissions via Global Vet Link (GVL) or the APHIS Veterinary Services Process Streaming (VSPS) will remain at $9.22 per sample. Please contact the Barron Laboratory at 715-637-3151, if you have any questions.

The VSPS system provided by APHIS is free to use, please click here for more information: Using the VSPS System
To find more information on Global Vet Links (GVL) services, please click here: Streamlined Animal Health Compliance Solutions | GlobalVetLink

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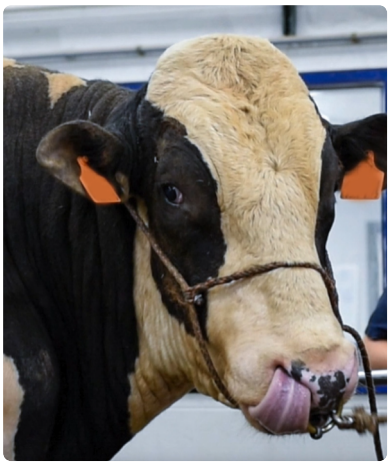
Virology Update



New Virology Test Offered at WVDL

Certified Semen Services (CSS) requires a 2-pass virus isolation test for BVD testing on a buffy coat sample. The WVDL Virology Section is now offering this test. The COFL test code is 40654: **2 pass Buffy Coat Virus Isolation - Bovine viral diarrhea virus confirmed by PCR**. This 2-pass virus isolation test for BVD will be set up every Monday, Wednesday, and Friday with results completed within 16-22 days. As a reminder, the sample must be received at WVDL - Madison within 7 days of the bleed date.

Highly Pathogenic Avian Influenza (HPAI) Update

Since January 1, 2025, WVDL has tested over 687 avian species samples by IAV PCR and 28,907 mammalian samples by IAV PCR and IAV antibody ELISA. To date, there have been no H5N1 detections in livestock in Wisconsin. Bovine milk IAV PCR tests represent nearly all licensed dairies in Wisconsin. Wisconsin has achieved unaffected Gold Status under the USDA APHIS National Milk Testing Strategy (NMTS). As of October 1, 2025, Wisconsin has transitioned to 50% reduced testing frequency while maintaining the state's commitment to ongoing surveillance pursuant to the NMTS. DATCP expects to continue to utilize milk samples through existing, routine sampling.

Recently, there have been detections of HPAI H5N1 in two commercial poultry premises in Jefferson County, WI and one premises in a backyard poultry flock in Racine County, WI. Birds at all sites were depopulated to prevent the spread of the disease.

WVDL provides Influenza PCR and ELISA testing for multiple species. Below is a chart with information for taking and submitting avian, cattle, and other mammalian species samples. Submission forms and supply forms may be found on our website: https://www.wvdl.wisc.edu/submission-and-order-forms/. Please be sure to check the reason for testing and complete all required information as indicated on the forms. If expedited testing is

requested, an additional fee may be applied, and contacting WVDL ahead of sample submission is appreciated.

As a reminder, any abnormal clinical signs and/or increase in mortality should be reported to DATCP at 1 (800) 572-8981.

Contact Us

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