WVDL Spring Newsletter

May 2025

Wisconsin Veterinary Diagnostic Laboratory

UNIVERSITY OF WISCONSIN–MADISON

Message from the Director

Hello from our team in Madison and Barron! Thank you for taking the time to read our Spring newsletter. The first quarter of 2025 has proven to be just as busy as 2024, with the ongoing outbreak response to H5N1 and changes in federal agencies and administrative policies. We have actively advocated to maintain our ability to support business continuity for animal agriculture in Wisconsin, and we will continue to participate alongside our peer organizations, ensuring that the needs of our stakeholders are our primary focus. That being said, as of May 1st, the dust has not

yet settled on what exactly will be left for resources and staffing for our regulatory partners, so stay tuned if we need to rethink how WVDL facilitates infectious disease outbreak response, food safety, or trade for Wisconsin.

Our newsletter is always packed with helpful information, case studies, and anticipated changes in diagnostics, and this edition is no different. However, I want to point out a significant milestone in WVDL history and express our appreciation for Dr. Phil Bochsler, who is retiring this spring. Dr. Bochsler joined WVDL in 2001 as a full professor and Chief of Pathology, and I was fortunate to be in his first general pathology course taught at Wisconsin. Phil has served as the Director of the WVDL and remains an excellent teacher and diagnostic pathologist. He exemplifies the Wisconsin Idea and the WVDL Idea through his dedicated service and collegiality. We will miss seeing you every day but know we can count on you for interesting case rounds. Best of luck in your retirement, and from everyone at WVDL, thank you and On Wisconsin!

Keith Poulsen, Director

Client Services

Notice to Barron Clients

Optimize Your Shipping for Faster Results

We want to inform our valued Barron-area clients of a small change that may impact turnaround times for sample submissions shipped via the U.S. Postal Service (USPS). In the past, our team has picked up USPS packages directly from the post office to help ensure timely processing. However, we no longer utilize a PO Box and now depend on a route carrier. All packages will now need to be addressed to “1521 Guy Avenue, Barron, WI 54812”; using “P.O. Box 97” is no longer a valid address. In addition, due to a consistently late delivery schedule—often after 4:00 PM—these shipments will now be processed the following business day.

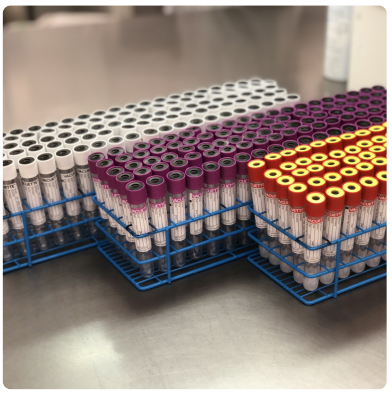
To avoid delays and ensure your samples are processed as quickly as possible, we strongly encourage you to take advantage of our UPS Shipping Program. This program offers:

- Economical flat rates
- Early-day delivery directly to the lab
- Faster processing and turnaround times

You can conveniently print UPS labels at home, or we’d be happy to send labels directly to you. Learn more at: WVDL Shipping Program

We appreciate your partnership and are here to support your diagnostic needs. Please feel free to reach out with questions: 715-637-3151.

Introducing Low-Cost Blood Tube Program at the Wisconsin Veterinary Diagnostic Laboratory



At the Wisconsin Veterinary Diagnostic Laboratory (WVDL), we are committed to supporting veterinarians, veterinary clinic staff, and industry partners with high-quality diagnostic tools at affordable prices. We are excited to announce our new blood tube program, offering a range of low-cost blood collection tubes designed to meet your diverse diagnostic needs.

Our Blood Tube Offerings:

1. **Serum Separator Tubes (SST):**
   - **8ml with gel** - Available in packs of 50 tubes for $7.50 or cases of 1200 tubes for $180.00.
   - Ideal for serum collection and separation.
   - Facilitates efficient and reliable serum analysis.
   - Cost-effective solution for routine blood tests.
2. **EDTA Tubes:**
   - **6ml** - Available in packs of 50 tubes for $5.00 or cases of 1200 tubes for $120.00.
   - Perfect for PCR (Polymerase Chain Reaction) testing.
   - Preserves the integrity of blood samples for accurate results.
   - Affordable option for comprehensive blood work.
3. **No Additive Tubes for Ear Notches:**
   - **6ml** - Available in packs of 50 tubes for $5.00 or cases of 1200 tubes for $120.00.
   - Specifically designed for ear notch samples.
   - Ensures sample purity and reliability.
   - Economical choice for specialized diagnostic needs.

Why Choose WVDL's Blood Tube Program?

- **Quality Assurance:** Our blood tubes are manufactured to the highest standards, ensuring consistent and reliable performance for all your diagnostic tests.
- **Cost Savings:** We understand the financial pressures faced by veterinary practices and industry partners. Our low-cost blood tubes help you manage expenses without compromising on quality.
- **Convenience:** With a variety of tube types available, you can easily find the right product for your specific diagnostic requirements.
- **Lab Efficiency and Automation:** Our blood tubes are crucial for enhancing lab efficiency and automation. They are designed to integrate seamlessly with automated systems, reducing manual handling and improving workflow accuracy.
- **Innovative Design:** We use Greiner Bio-One tubes, including the innovative VACUETTE® Blood Collection Tubes made out of virtually unbreakable PET plastic. These tubes have set the standard on today's market, providing improved safety and hygiene during specimen collection procedures with the advantage of being as clear as glass.

How to Order:

Ordering our blood tubes is simple and hassle-free. Visit our website at www.wvdl.wisc.edu or contact our customer service team at (608) 262-5432 or Toll-free at (800) 608-8387. You can also

email us at supplyroom@wvdl.wisc.edu to place your order today. We offer flexible shipping options to ensure you receive your supplies promptly.

Shipping & Handling:

- $15.00 for Wisconsin
- $30.00 for out of state

Join Us in Enhancing Veterinary Diagnostics:
At WVDL, we believe that access to high-quality diagnostic tools is essential for the health and well-being of animals. By choosing our blood tube program, you are partnering with a trusted laboratory dedicated to advancing veterinary medicine through innovation and affordability.
For more information about our blood tube program or to learn about other services we offer, please visit our website or reach out to our team. Together, we can make a difference in veterinary diagnostics.

Pathology

Leptospira Abortion in Cattle: Case Report and Review

Background
Leptospira spp. are a large genus of spirochete bacteria that affect a wide range of species worldwide, colonizing the urogenital tract and shedding in the urine, reproductive discharge, and milk of infected hosts. Wild animals often serve as maintenance hosts, but domestic livestock frequently serve as reservoirs as well. Transmission of this disease occurs most commonly through contact with urine from infected animals, either directly or via contaminated feed or water. Contact with uterine discharge and placental fluid from affected animals can also happen. Infected animals can shed bacteria at high levels for about six weeks post-infection, while chronically infected subclinical individuals have been known to continue shedding bacteria for months or even become lifelong carriers of this disease. *Leptospira spp.* survive well in the environment, particularly in stagnant water or moist soil, with reports of detectable bacteria present up to six months post-contamination. Clinical signs of this disease are often non-specific, such as pyrexia and anemia, but can progress to renal and hepatic failure, meningitis, and death. Leptospirosis in humans is associated with flu-like symptoms such as pyrexia and muscle aches, hepatorenal failure, and up to thirty percent of those with acute disease suffer long-term effects such as depression and chronic fatigue. In cattle, this disease is often subclinical, commonly presenting as late-term abortions, stillbirths, premature births, births of weak and low-weight calves, agalactia, and occasionally chronic infertility.

Case Presentation
A herd of five hundred Holstein cows presented with five affected by late-term abortions during their dry period. The cows were housed in a free-stall setting with recycled manure solids as bedding, fed a total mixed ration, and vaccinated with ScourGuard 4KC and Vision 7 at the beginning of their dry-off period. The recently aborted fetus and placenta of a four-year-old cow

were submitted to the Wisconsin Veterinary Diagnostic Laboratory for necropsy. There were no significant gross findings, although mild placentitis was identified on histopathology. A weak positive PCR result (Ct value 36.0) for *Leptospira spp. was noted* in the submitted placental tissue. Based on these findings, serology on the dam was recommended to confirm the significance of *Leptospira* detection in this case. Two serum samples were submitted, one from the dam of the aborted fetus and one from another cow who had recently aborted. High antibody titers (1:1600 and 1:3200) to *Leptospirosis interrogans* serovar *Pomona* were detected in both serum samples by micro-agglutination testing (MAT). The remaining Lepto. MAT titers were considered low at <1:400 for the other serovars tested. The high *Pomona* titers and low titers to the other serovars (*Canicola, Grippotyphosa, Hardjo-bovis, Icterohaemorrhagiae,* and *Bratislavia*) confirmed *Leptospirosis* as the probable cause of the abortion outbreak on this farm.

Conclusion

Numerous bacterial, viral, protozoan, and fungal pathogens are associated with abortion in cattle. Determining the cause of abortion in cattle presents a significant challenge for herd owners, veterinarians, and diagnosticians. In cases of abortion, submitting the placenta along with fetal tissues is crucial for aiding diagnosis. In this instance, the placenta was the only tissue submitted that exhibited abnormalities, and the positive PCR result guided the veterinarians toward a diagnosis after further testing, providing the producer with the information needed to address the abortion storm in their herd.

References

- Schlafer DH, Foster RA. Female Genital System. In: *Jubb, Kennedy, and Palmer's Pathology of Domestic Animals.* 3rd ed. Elsevier; 2016: 409-410
- Adugna S. A Review of Bovine Leptospirosis. European Journal of Applied Sciences. 2016; 8 (6): 347-355. doi: 10.5829/idosi.ejas.2016.347.355.
- Aliberti A, Blanda V, DiMarco Lo Presti V, Macaluso G, Galluzzo P, Bertasio C, Sciacca C, Arcuri F, D'Agostino R, Ippolito D, et al. *Leptospira interrogans* Serogroup Pomona in a Dairy Cattle Farm in a Multi-Host Zootechnical System. Veterinary Science

A Busy TSE Testing Season

It was another busy year at the WVDL TSE Testing Lab. So far, this fiscal year, between 7/1/2024 and 3/31/2025, we have tested 94,891 samples. See **Table 1** for a summary of the number of animals tested, the number of animals that tested positive, and the percentage of animals that tested positive based on test type. **Table 2** shows the breakdown of results per sample for Captive Cervid IHC (2 samples per animal). There were 2,093 animals tested, resulting in 4,186 total results for obex and lymph node samples.

Please keep the following in mind when submitting samples for TSE testing and interpreting test results:

- Unacceptable tissue refers to tissue that cannot be interpreted due to poor quality (i.e., severe autolysis that renders tissue unrecognizable).
- Unsuitable tissue is resulted lymph node or lymphoid tissue is present in the jar (i.e., a thyroid or salivary gland is submitted rather than a lymph node).
- Location is resulted when submitted CNS tissue does not include the dorsal motor nucleus of the vagus nerve (DMNV).

Each year, the Wisconsin Department of Natural Resources (WI DNR) calculates the average turnaround time for all animals tested for Chronic Wasting Disease (CWD) from the harvest date to the time the results are reported to hunters. The average turnaround time for 2024 was 8.4 days, with 3 of those days accounted for by the testing performed at the WVDL. The WI DNR has an excellent website full of information about CWD, population estimates, and resources, which can be accessed via this link: https://dnr.wisconsin.gov/topic/wildlifehabitat/cwd.

For more information about the Farm-Raised Deer Industry in Wisconsin, the Wisconsin Department of Agriculture, Trade and Consumer Protection maintains the following website: https://datcp.wi.gov/Pages/Programs_Services/FarmRaisedDeer.aspx

Table 1: Summary of animals tested in the TSE Lab in FY25.

Test Type	Animals Tested (n)	Positive Animals (n)	Animals Positive (%)
Captive IHC	2,093	130	6.2%
Captive ELISA	214	0	0.0%
Wild IHC	27,077	93	0.3%
Wild ELISA	56,509	2,662	4.7%
Scrapie IHC	1,588	0	0.0%
BSE ELISA	6,748	0	0.0%
Wild IHC 1 per	650	649	99.8%
Wild IHC RAMALT	12	3	25.0%
Total	94,891	3,537	3.7%

Table 2: Summary of sample (obex and lymph node per animal) results for Captive CWD IHC in FY25.

Test	Not Detected	Positive	Unacceptable Tissue	Unsuitable Tissue	Location	Insufficient Follicles	No Sample Received
Captive IHC	77.20%	9.20%	0.48%	0.33%	3.75%	0.02%	9.08%

Serology

Coxiella (Q-Fever) CF Testing Notification

Argentina remains the only country requiring the Q-Fever (QF) Complement Fixation (CF). However, the manufacturing of QF CF reagents has been discontinued. NVSL is only accepting samples intended for exports to Argentina. The WVDL will change its QF CF testing schedule from weekly to biweekly and will only accept Argentina export testing to help conserve reagents, starting June 1, 2025. Whenever possible, use the QF ELISA due to its increased sensitivity and high-throughput capability for all samples that are not Argentina exports. The WVDL continues to seek reagent options; in the meantime, please assist the WVDL in conserving the current reagents on hand for the specific needs of exports to Argentina. Your assistance is greatly appreciated.

EIA Testing Season Is Upon Us

WVDL is experiencing another busy season of Equine Infectious Anemia (EIA; Coggins) testing. To ensure we can continue providing exceptional diagnostic services, we have included updates and important information about testing in this correspondence.

Updates to EIA Testing Services

1. Official certificates can be expected within 72 hours of receipt at the Barron laboratory.
2. Testing services can be expedited, with results available within 24 hours of receipt for an additional fee. Please see the website for more information.
3. Submissions that do not meet USDA requirements and require clerical attention for processing will be charged an additional processing fee. Testing services may also be delayed.

Helpful Hints for Frustration-Free EIA Testing

1. The only EIA/Coggins testing available is ELISA.
2. Please submit 1mL of serum, refrigerated and shipped on cold packs. Please note, hemolyzed serum will be rejected.
3. Samples must be submitted with their completed submission form. Please note, the animal ID listed on the paperwork MUST match and be clearly identified on the serum sample.
4. Submitting Veterinarians MUST have a valid National Accreditation Number.
5. WVDL-Barron accepts 3 types of submission forms: the Official Federal VS10-11 form, as well as electronic forms via Global Vet Link and APHIS Veterinary Services Process Streaming (VSPS).

For more information please visit the WVDL website here.

Please feel free to call (715-637-3151) or email (info@wvdl.wisc.edu) us at any time for answers to your questions. More information can be found at: https://www.wvdl.wisc.edu/index.php/equine-infectious-anemia-virus-eia-diagnostic-testing/

Virology

Department of Agriculture Trade and Consumer Protection (DATCP) Announces National Milk Testing Strategy (NMTS) to Occur in Wisconsin

In April 2025, DATCP updated WI veterinarians on the mandatory NMTS, which was launched by the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS).

The mandatory National Milk Testing Strategy (NMTS) will soon begin monthly sampling at the farm level in Wisconsin. The following is a shared message from DATCP and the Wisconsin Veterinary Medical Association (WVMA).

Important information to know:

- **Testing notification:** If H5N1 is detected in a herd, ***the farm is notified, not the veterinarian.*** As samples will be collected through the milk quality labs process, the herd veterinarian will not be attached to the sample. It is a good time to encourage dairy clients to notify their herd veterinarian in the case of an H5N1 detection. (See DATCP's letter to farmers to understand the notification process.)
- **Understand all animal movement:** Each response to an H5N1 detection will depend on the operation and specific circumstances. The movement of animals will be affected if H5N1 is detected. It is important for dairy clients to map out animal movement on their farm. (See H5N1 Cattle Detection Protocol resource document from Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP).
- **Improve biosecurity:** Please review and share these biosecurity best practices with farm clients

For more information, please access DATCP's Highly Pathogenic Avian Influenza (H5N1) in Dairy Cattle webpage .

AAVLD
American Association of Veterinary Laboratory Diagnosticians

Contact US

Wisconsin Veterinary Diagnostic Laboratory Providing You With Reliable Results and Exceptional Customer Service

Wisconsin Veterinary Diagnostic Laboratory - Madison
445 Easterday Lane
Madison, WI 53706
Phone: 608-262-5432
Toll Free: 800-608-8387
Fax: 608-504-2594

Wisconsin Veterinary Diagnostic Laboratory - Barron
1521 E. Guy Avenue
Barron, WI 54812
Phone: 715-637-3151
Toll Free: 800-771-8387
Fax: 715-449-5052

Email: info@wvdl.wisc.edu
Website: https://www.wvdl.wisc.edu/
Location: 445 Easterday Lane, Madison, WI, USA
Phone: 1.800.608.8387
Facebook: https://www.facebook.com/WisconsinVeterinaryDiagnosticLaboratory/
Twitter: @wvdl_lab

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Please visit our website for more information: https://www.wvdl.wisc.edu/

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