

WVDL SUMMER NEWSLETTER

July 2026



Wisconsin Veterinary Diagnostic Laboratory UNIVERSITY OF WISCONSIN-MADISON

Message from the Director



Hello from WVDL!

Thank you for taking the time to read the WVDL newsletter. Our goal is to share information that helps you navigate diagnostic testing, stay current on laboratory services, and ultimately provide the best care for the animals and producers you serve.

This issue contains several important updates, including new sample submission and packaging guidelines designed to improve specimen integrity, laboratory efficiency, and turnaround times. You'll also find reminders for *Tritrichomonas foetus* testing submissions, changes to Scour Panel C testing and what recent data may be telling us about enteric disease trends in calves, an important notice regarding the discontinuation of the Q Fever Complement Fixation test, and highlights of recent WVDL scientific publications and professional development activities.

As I travel around Wisconsin and visit with veterinarians, producers, and clinic staff, I frequently hear that many people do not receive this newsletter—even though they would find it valuable. That raises an important question for our stakeholders: **How can we get this newsletter into the inboxes of more WVDL submitters?** We serve approximately 4,000 submitters annually, yet many of our customers tell us they have never seen these updates.

Your feedback is welcome. Expanding the reach of this newsletter would help us improve customer service, share timely laboratory information, and provide practical resources to support the veterinary community.

Thank you for your partnership with the WVDL.

Keith

Client Services

New Sample Submission & Packaging Guidelines

The Wisconsin Veterinary Diagnostic Laboratory (WVDL) has introduced updated [Submission and Packaging Guidelines](#) to help ensure specimens arrive safely and in optimal condition for testing. Proper packaging and documentation are critical to maintaining sample integrity, preventing contamination, and supporting accurate, timely diagnostic results. These practices also help protect laboratory staff, couriers, and others who handle shipments during transport.



The updated guidelines emphasize several key best practices, including using appropriate specimen containers, placing all samples in secondary containment, ensuring submissions are organized and accompanied by complete documentation, as well as using adequate packing materials and temperature control measures when shipping specimens. For larger submissions, clients are encouraged to use the CoreOne for Labs portal or WVDL spreadsheet tools to streamline processing. While WVDL remains committed to supporting clients throughout the submission process, samples that require additional sorting, cleanup, or administrative intervention due to packaging or documentation issues may be subject to handling fees.

These new guidelines are more than shipping instructions—they are a shared commitment to quality, safety, and efficiency. By taking a few extra minutes to package and document samples correctly, you help ensure that specimens arrive in optimal condition and can move quickly through the testing process. We appreciate your partnership and cooperation as we implement these

Bacteriology Update

Tritrichomonas foetus Testing

WVDL would like to remind clients to follow the instructions below when submitting samples for *Tritrichomonas foetus* testing using InPouch™ (BioMed Diagnostics).

- **If a Direct Exam is requested**, Do not roll down the InPouch™. Clearly indicate on the submission form that a Direct Exam is requested. Rolling down the InPouch™ interferes with the direct microscopic examination of the sample.
- **If a Direct Exam is not requested**, Roll down each InPouch™ according to the manufacturer's instructions before submitting the sample.

Trich Direct Exam

Please **DO NOT roll down** the InPouch™



Trich Culture

If no direct exam needed, **please roll down** InPouch™



Pathology & Veterinary Services Update

Bovine Scour Panel C Analytics & Interesting Finds

At the beginning of July 2025, the WVDL changed some of the test offerings that are found on Scour Panel C. The change expanded PCR testing for enterotoxigenic *E. coli* (ETEC). The revised

panel added testing for F41 and STa genes and removed testing for the intimin gene but kept testing for F5 (K99) gene.



Both F5 and F41 are bacterial adhesins (a.k.a.-fimbriae or pili) which are used by ETEC to attach to enterocytes and STa is a small, heat stable peptide. After attachment to enterocytes, the STa toxin binds to a cellular receptor which causes a spike in cGMP. The rise in intracellular cGMP causes activation of protein kinases which affect enterocytes by blocking Na⁺ absorption and stimulating Cl⁻ and water secretion. The net result is explosive diarrhea and dehydration in calves that are less than 7 days of age. It is important to point out that heterologous antibody that binds to the F5 adhesin will not bind to the F41 adhesin. Reports indicate that F5 (K99) and F41 genes are found together approximately 90% of the time for F5-positive-ETEC.

It is not known if good quality colostrum that is harvested from properly immunized dams for neonatal diarrhea and is given to calves within 2 hours of birth will be less effective for preventing diarrhea when the ETEC bacteria contain both the F5 and F41 adhesin genes. Conversely, ETEC that does not contain the F5 adhesin gene but is a strong PCR positive (Ct <30) for the STa gene will have limited immunoglobulin protection against ETEC. The same concerns apply to calves receiving F5 heterologous antisera shortly after birth.

The table below provides both a summary and statistical analysis of WVDL's scour panel C results for a 12-month period. Please note the high incidence of group A rotavirus followed by *Cryptosporidium* spp. Interesting, F41 and STa genes are found more frequently than F5 (K99) genes.

WVDL Scour Panel C

07-01-25 to 06-30-26

Agent	No. Positive	No. Negative	Total	% Positive
Coronavirus	223	616	839	26.6 ^a
Rotavirus A	612	236	848	72.2 ^b
Cryptosporidium spp.	341	509	850	40.1 ^c
Salmonella spp.	204	646	850	24.0 ^a
F41	105	747	852	12.3 ^d
F5 (K99)	57	806	863	6.6 ^e
STa	192	648	840	22.9 ^a

Significant difference ($P \leq 0.05$) is indicated by lower case letters, a, b, c, d, and e

Note: F5/STa = 29.7%

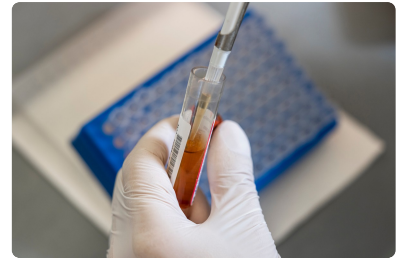
F41/STa = 54.7%

STa: Heat stable enterotoxin

Serology Update

Reminder: Discontinuation of the Q Fever Complement Fixation Test

The Wisconsin Veterinary Diagnostic Laboratory will be discontinuing Q fever (*Coxiella burnetii*) Complement Fixation (CF) testing effective September 1, 2026. This change follows updated export requirements from Argentina, which no longer require QF CF testing.



Effective September 1st, please transition all Q fever serology test requests to **QF ELISA**. The QF ELISA will fully replace CF testing and continues to meet current regulatory and diagnostic expectations.

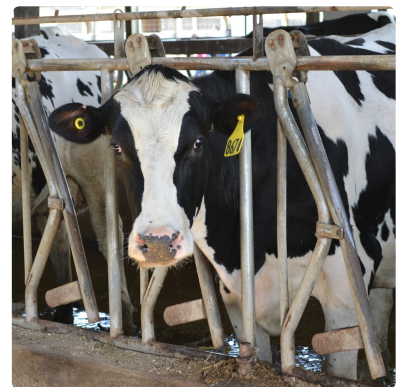
We appreciate your understanding as we align our services with updated international requirements. If you have any questions about this transition, please feel free to contact us.

Thank you for your continued partnership with the WVDL.

Virology Update

Virology Publications on HPAI

The WVDL Virology staff contributed to the scientific community with the publication of three manuscripts focused on Highly Pathogenic Avian Influenza (HPAI), highlighting the team's expertise and ongoing commitment to advancing animal health research.



- **Hach A, Vandenburg-Carroll A**, Marthaler D, Vadia S, Zhang Q, Prarat M, **Lim A**,. (2026). Evaluation of IndiMix JOE with Intype IC-RNA as an Alternative to AgPath-ID for Influenza A Virus Detection in Avian and Bovine Samples. Pathogens. 15. 600. 10.3390/pathogens15060600. <https://www.mdpi.com/2076-0817/15/6/600>
- **Lim A, Poulsen K**, Caserta LC, Guan L, **Opgenorth E**, Beal MP, et al. Highly pathogenic avian influenza A(H5N1) viral RNA in bovine semen, California, USA, 2024. Emerg Infect Dis. 2026 May. <https://doi.org/10.3201/eid3205.251639>.
- Mezhenskaia D, Babujee L, **Lim A**, Guan L, Nguyen D, Gu C, Neumann G, Poulsen K, Eisfeld AJ, Kawaoka Y. 0. Isolation and characterization of a clade 2.3.4.4b genotype D1.1 H5N1 virus from dairy cattle in Wisconsin. J Virol 0:e00761-26. <https://doi.org/10.1128/jvi.00761-26>.

Five WVDL team members attended the **Association of Veterinary Microbiologists (AVM) Conference** in **Des Moines, Iowa**, where they participated in roundtable discussions, networked with colleagues, and stayed current on developments in veterinary microbiology. From left to right: A. Zimmerman, E. Opgenorth, B. Angell, J. Wilson, R. Clark



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



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