



The NAHLN Update 2026

Volume 17, No. 1

THE OFFICIAL NEWSLETTER OF THE NATIONAL ANIMAL HEALTH LABORATORY NETWORK (NAHLN)
A STATE AND FEDERAL PARTNERSHIP TO SAFEGUARD ANIMAL HEALTH

Founding Principles and Features of the NAHLN

- Operate within a quality management system
- Maintain competency of laboratory personnel
- Use standardized protocols, reference materials, and equipment
- Maintain appropriate biosafety/biosecurity levels
- Provide secure communications and real-time electronic reporting
- Evaluate preparedness through scenario testing

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Recurring Call Schedule:

NAHLN Laboratory Response
Planning calls occur every Friday.

NAHLN Coordinating Council (CC)
calls occur on the third Monday of
each month.

Fun Facts

Did you know that details on [NAHLN Farm Bill funded projects](#) as well as other important information regarding the network can be easily found on the [NAHLN Website](#) which includes information on:

- [NAHLN Laboratory Contact Information](#)
- [NAHLN Disease Approvals](#)
- [Outbreak Response Guidance Documents for testing and reporting](#)
- [Frequently Asked Questions](#)
- [NAHLN-NBAF Partnership](#)

and much more

Input Welcome!

We appreciate hearing from you!
Are there other topics that you would like to hear about? Please email your comments to us at NAHLN@usda.gov.

A message from the NAHLN Coordinator

As Coordinator, I would like to extend my sincere gratitude to all NAHLN laboratories for the critical work performed each and every day. The dedication, technical expertise, and steadfast commitment are the foundation of our network's strength and success. The role this Network plays in safeguarding animal health, supporting disease surveillance, and responding rapidly to emerging threats is both vital and deeply appreciated.

In the face of ongoing outbreaks, evolving challenges, and persistent uncertainty, their resilience and professionalism continue to stand out. Whether managing increased diagnostic demands, adapting to new protocols, or supporting partners across the system, their efforts demonstrate the true value of collaboration and preparedness. It is through their collective work that NAHLN remains a trusted and effective national resource.

I also want to recognize the spirit of cooperation and communication that defines this network. Their willingness to share knowledge, support one another, and remain flexible in dynamic situations ensures that we can meet challenges head-on and continue to improve the capabilities of the NAHLN.

Their contributions do not go unnoticed, and they make a lasting impact on animal health, public confidence, and the strength of our national response system. The NAHLN Program Office staff are grateful for the partnership and proud to work alongside such dedicated professionals.

Sincerely,
Christina M. Loiacono

NIFA Update

Disease and Pest Rapid Response Grant

On March 16, 2026, the U.S. Department of Agriculture's National Institute of Food and Agriculture (NIFA) announced the launch of a new competitive grant opportunity aimed at rapidly addressing emerging and re-emerging pest and disease threats across the nation's food and agricultural systems.

The grant opportunity, [Rapid Response to Emerging and Re-emerging Pest and Disease Events Across Food and Agricultural Systems](#), is designed to deploy timely, science-based solutions to protect agricultural productivity, ecosystem health, and food security.



“Invasive and emerging pests and diseases can devastate crops, livestock, and ecosystems, disrupt supply chains and threaten food security,” said NIFA Director Dr. Jaye Hamby. “This opportunity empowers researchers and Extension professionals to act quickly, delivering practical solutions that safeguard our agricultural communities and the nation’s food supply.”

This grant opportunity is part of NIFA’s [Agriculture and Food Research Initiative \(AFRI\)](#) competitive grant program. It is designed to improve plant and animal production, and human and environmental health. AFRI is the nation’s leading and largest

competitive grant program for agricultural sciences. This funding is available to eligible colleges, universities, and other research organizations.

With a maximum award of \$500,000 and a grant duration of 12 to 24 months, the grant opportunity supports grants for research, Extension, or integrated projects. Applications are accepted on a continuous basis, within 180 days of a qualifying pest or disease event, ensuring swift mobilization of resources when threats arise.

Applications must directly address the effects associated with the emergence or re-emergence within the last 180 days of pests and/or disease in animal and/or plant production systems or within the food supply, and one or more of the following emphasis areas: One Health, plant and/or animal health, and ecosystem health.

Funded projects will focus on applied research and Extension and outreach activities that generate actionable knowledge and tools. These may include:

- Rapid understanding of pest/pathogen ecology, epidemiology, and immunology.
- Development and validation of diagnostics, vaccines, and control methods.
- Communication strategies, training opportunities, and best practices for mitigation.
- Technologies and protocols for detection, management, and prevention.

To ensure impact, projects must implement or develop at least one deliverable within six months of award receipt, with all activities completed within the grant period. Proposals are encouraged to integrate biological and social sciences, engage public-private partnerships, and support small- and medium-sized farms and ranches.

“This opportunity reflects USDA’s commitment to proactive, science-driven responses to agricultural threats,” Hamby said. “By supporting rapid innovation and collaboration, we’re helping communities stay resilient in the face of evolving challenges.”

The opportunity also welcomes proposals that address ecosystem health, including strategies to mitigate the environmental impacts of pests and diseases affecting plants, animals, and pollinators. Projects that incorporate community development, youth development, and 4-H are also eligible, provided they align with the opportunity’s emphasis areas.

Applicants are encouraged to coordinate efforts across institutions and regions, and to contact program staff at afri-rapidresponse@usda.gov with

questions regarding project fit. While this opportunity is designed for short-term, rapid response efforts, longer-term projects focused on preparedness, detection, surveillance, or prevention may be better suited for other AFRI opportunity area priorities such as Agricultural Biosecurity, Diseases of Agricultural Animals, or Food Safety and Defense.

Article submitted by Christina Loiacono, NAHLN Coordinator, NAHLN Program Office, USDA APHIS VS D & B, NVSL.

NAHLN Annual Exercise 2025 Review



Fig. 1 – Paper Cow



Fig. 2 – Paper Poultry Samples

The NAHLN Exercises & Drills Working Group (EDWG) held its annual exercise on September 25–26, 2025. Design and planning were carried out by a subgroup composed of the NAHLN Program Office (NPO), the Foreign Animal Disease Diagnostic Laboratory (FADDL), and representatives from five NAHLN member laboratories. As in previous years, the exercise focused on the steps laboratories must take to prompt initiation of a foreign animal disease investigation (FADI). However, the 2025 exercise expanded its scope by incorporating additional activities and new participants, enabling laboratories to practice internal and external communications, coordination with state regulatory officials, and HL7 electronic results messaging capabilities.

A total of 54 NAHLN laboratories participated, representing a little over 80% of the network. Of these, 43 exercised the FADI process for Foot and Mouth Disease (FMD) over two days, while 11 used a mock poultry submission to conduct a Highly Pathogenic Avian Influenza (HPAI) and Virulent Newcastle Disease FADI, completing the exercise within one day. Most participating laboratories accept whole animals for necropsy and subsequent testing and were provided with paper animals to simulate these activities (Fig. 1); those without necropsy services were provided with paper mock samples as case material (Fig. 2). Laboratories initiated contact with their State Animal Health Official (SAHO) or Area Veterinarian in Charge (AVIC) to report case information, including gross lesions and histories suggestive of a potential foreign animal disease. Once a FADI was initiated, laboratories proceeded with subsequent steps, including communication with the NPO and the National Veterinary Services Laboratories (NVSL). Submission of duplicate samples to FADDL was simulated by emailing photos of packaged samples, a completed FedEx airbill, and a VS 10-4 Specimen Submission Form. Laboratories then received an

inject with mock results and instructions for completing Day 1, culminating in their transmission of simulated results through HL7 messaging.

Day 2 for the FMD laboratories began with a request to test an unapproved sample type, prompting many participants to complete and submit deviation requests. As would occur in a real event, submission of a deviation request for testing unapproved sample types during an outbreak triggered the NAHLN Emergency Use Approval Process. This process involves a conference call between the requesting laboratory, the SAHO and AVIC, the NPO, NVSL, and the USDA-APHIS National Preparedness and Incident Coordination Center. For exercise purposes, all NAHLN laboratories were invited to join the call and were encouraged to include their state and federal regulatory officials. The state of Pennsylvania served as the official participating state. With more than 230 attendees, the call generated robust discussion and helped highlight questions and concerns that would likely emerge during an actual outbreak response. A hotwash held after completion of the exercise produced overwhelmingly positive feedback, including examples of how laboratories used the activities as training opportunities and to stimulate internal discussion.

Annual exercises with strong participation—such as this two-day event—are essential to the EDWG and help the NPO identify gaps in outbreak response planning and preparedness. In fact, a new requirement for all NAHLN laboratories, not exempted due to activation for an on-going outbreak, is to participate in at least one preparedness exercise annually. NAHLN laboratories can participate in the annual exercise sponsored by NAHLN or they may choose to participate in a state, regional, or national exercise and then provide a presentation on lessons learned during a NAHLN EDWG meeting or at a NAHLN/AAVLD Laboratory Emergency Response Committee meeting.

Planning for the 2026 annual exercise is already underway, and the NPO is grateful for the continued engagement of network and reference laboratories in making the NAHLN annual exercise a valuable and effective preparedness activity.

Article submitted by Kelli Almes, Associate Director, FADDL, USDA, APHIS VS D&B, NVSL.

Response activities

HPAI Response and Actions



Highly Pathogenic Avian Influenza (HPAI) continues to pose significant challenges to the poultry industry and animal health professionals across the United States. In recent months, there have been notable outbreaks in Pennsylvania and Indiana,

prompting swift response actions and collaborative efforts among agencies and amazing efforts by NAHLN laboratories in those states to perform at surge capacity levels for extended periods of time.

In Pennsylvania, a rapid increase of confirmations in both backyard and commercial flocks during the month of February required a massive response by state and federal partners and continued outstanding collaboration with their NAHLN laboratory system. With three NAHLN laboratories they are able to distribute sample load across the network, triaging by sample stream and needed turn around time, working closely with their State Animal Health Official and Incident Management Teams.

Indiana was hit hard with large numbers of confirmations beginning October 2025 and as associated testing with those control areas was drawing to a close, they saw another marked and rapid increase in commercial detections. This wave of infections was spread over several regions of the state, adding a new complicating factor to their response and testing efforts. To support local testing capacity, personnel from the National Veterinary Services Laboratories (NVSL) were deployed to the Indiana Animal Disease Diagnostic Laboratory (IADDL) at Purdue University. During the months of March and April five personnel from various sections across NVSL deployed to the IADDL. Their experience and expertise in diagnostic testing, HPAI specifically, and the mechanisms already created by the IADDL for remote training had them hit the ground running with many performing outbreak testing by their second day on site. They were also able to assist in training additional IADDL staff, adding an additional layer of assistance to the IADDL and increasing their number of proficiency tested personnel for future needs.

The experience gained by the NAHLN Program Office and NVSL during the network support previously sent to California and the outstanding collaboration with the IADDL made this effort seamless. By utilizing the true strength of the network in so many ways during this extended outbreak you all have proven that the NAHLN is unmatched in its ability and capacity to respond when needed. Thank you for continuing to go above and beyond to serve the needs of your clients, state, region, industry, and American agriculture!

Article submitted by Kelli Almes, Associate Director, FADDL, USDA, APHIS VS D&B, NVSL.

New NAHLN Laboratory Requirements



**NAHLN is updating
laboratory requirements
set to take effect on
October 1, 2027**

The National Animal Health Laboratory Network is introducing updated laboratory requirements set to take effect on October 1, 2027. These changes are designed to

strengthen diagnostic capacity, ensure consistency across member laboratories, and maintain high standards for animal health surveillance and response. Alongside the updated requirements, NAHLN utilized the structured performance and accountability process to address situations where laboratories fall short of expectations.

Implementation Timeline:

In October 2026, laboratories will be asked to complete a self-assessment against the new standards. This step is intended to identify gaps early and provide an opportunity for corrective action before full implementation. If deficiencies are identified, the NAHLN Program Office will support laboratories over the following 12 months in order to be fully compliant by October 1, 2027.

Key Laboratory Requirements:

1. Full Accreditation

Laboratories must maintain full accreditation of their quality management system through a recognized third-party auditing body.

2. Electronic Messaging Capability

All laboratories must support electronic messaging for NAHLN-approved scope diseases to ensure rapid data sharing.

3. Molecular Assay Approvals

Each laboratory is required to maintain at least two approved molecular assays.

4. Minimum Testing Capacity

Laboratories must sustain a minimum capacity of 400 PCR tests per 8-hour shift.

Overall Impact:

These updated requirements emphasize resilience, technical capability, and response capacity across the NAHLN system. NAHLN aims to ensure that all participating laboratories are prepared to respond effectively to animal health threats while maintaining national consistency and reliability.

Article submitted by Christina Loiacono, NAHLN Coordinator , NAHLN Program Office, USDA APHIS VS D & B, NVSL.

Getting to Know the NAHLN-NBAF Partnership Scientists



Dr. Catie Burgess: Advancing Infectious Disease Research in the Southeast and Beyond

Dr. Catie Burgess is the NAHLN-NBAF regional scientist for the Southeast, based out of the Virginia Tech Animal Laboratory Services (ViTALS) at the Virginia-Maryland College of Veterinary Medicine. She joined the NAHLN-NBAF partnership in September of 2025, bringing a specialization in surveillance testing and simulation of surveillance strategies and laboratory configurations to enhance adaptability. As someone with a background in both diagnostics and research, as well as being a lifelong Virginian, she is thrilled to be able to serve her home region in this role.

Dr. Burgess has spent the last eight years toggling between infectious disease research and diagnostics. While pursuing her B.S. in Biology and Government at the College of William and Mary she spent 2 years researching *Helicobacter pylori* Two-Component Systems under the mentorship of Dr. Mark Forsyth. After graduating in the Spring of 2020, she deferred admission to a graduate program in Public Health to grab an oar in COVID-19 diagnostics and surveillance. She joined the Molecular Diagnostics Lab at Virginia Tech's Fralin Biomedical Research Institute in Roanoke, VA as a PCR technician under the direction of Dr. Carla Finkelstein. As this lab was only established in response to public need for COVID-19 testing in Southwest VA, she gained valuable experience working in a diagnostic lab under stress as it scaled up from two bench tops using borrowed equipment to a state of the art, high-capacity facility taking up an entire floor. Through the height of the pandemic she became intimately familiar with the highly variable environment of diagnostics under stress. That time left her in awe of how dedicated and creative people can make do and deliver under tough circumstances. She eventually left to pursue a PhD in Translational Biology, Medicine, and Health at Virginia Tech, under the mentorship of Dr. Kevin Lahmers. Her research dealt with surveillance enhancing strategies for emerging *Theileria orientalis* Ikeda, as well as developing simulations for different surveillance approaches with different target pathogens, surveillance needs, and variable lab capacities to improve performance and enhance adaptability. Now a Research Assistant Professor in the Department of Biomedical Sciences and Pathobiology, she continues working on simulation development and *T. orientalis* Ikeda mitigation through surveillance as part of Dr. Lahmers's lab. She is grateful to work with talented veterinarians through this research who have generously shared their expertise and are crucial for sample collection efforts as well as keeping her from getting kicked or run over by equipment at dairies.

In her free time Dr. Burgess trains in competitive Highland Dancing and travels the country to compete in Highland Games, often with her boyfriend or family who are also competitors and professionals. After ~24 years of this she looks forward to a couple more seasons before her knees have had enough. After spending many years as a fiddler in Celtic and old-time bands she now enjoys saying she'll start playing again, though has yet to actually do it. She loves spending time with her family, keeping up with her little nephew, hiking, consuming more reality TV than she'd care to admit, and has recently taken up distance running in her off-season (Dr. Burgess is not very fast). No matter where work might take her she absolutely wants to hear your recommendation for a good local beer.

Dr. Burgess is excited to be a part of such a unique and collaborative group in the NAHLN-NBAF partnership. She looks forward to applying her skills in simulation development, sequencing, and surveillance to help NAHLN labs enhance their adaptability to the many risks, constraints, and surprises our personnel within the NAHLN face.

Article submitted by Catie Burgess, NAHLN-NBAF Regional Scientist, Virginia-Maryland College of Veterinary Medicine, Virginia Tech, Blacksburg, VA.

Laboratory Spotlight



The Virginia Tech Laboratory Services (ViTALS)

The Virginia Tech Animal Laboratory Services is currently undertaking an expansion of their website featuring services, surveillance, and research related to the virulent Ikeda genotype of *Theileria orientalis*. *T. orientalis* Ikeda is transmitted by the invasive Longhorned Tick, *Haemaphysalis longicornis*, and causes anemia in cattle. Without any approved treatment or vaccine, surveillance testing is crucial for its management.

ViTALS served a pivotal role in the initial identification of the Ikeda genotype in North America in 2018, and has since led surveillance efforts throughout the region. The website expansion will allow users to access maps of confirmed cases, maps of estimated risk for transmission, extension materials, and recent literature on Ikeda diagnostics/surveillance, research, and management. The development of this information hub is in addition to ViTALS contributions to ongoing research on *Theileria orientalis* Ikeda involving beef and dairy production, long-term effects of infection, epidemiology, mechanism and pathology of Ikeda associated abortions, antigen identification, niche modeling, pooled surveillance, and regional surveillance in cattle and sheep. Any labs interested in sharing data on *T. orientalis* Ikeda detections to contribute to niche modeling can reach out to the ViTALS lab. The

website expansion will be ongoing through 2026 and can be accessed at:
<https://vitals.vetmed.vt.edu/theileria.html>

Additionally, ViTALS has joined in collaboration with the Virginia Tech Plant Disease Clinic to form the Virginia Tech (Meta)genomics-based Plant and Animal Pathogen Identification Center which combines resources to extend pathogen discovery and characterization to the plant and animal pathogen arenas. This partnership is working on sequencing focused Laboratory Information Management Systems as well as identifying improved algorithms for novel pathogen identification.

Some recent publications from ViTALS-affiliated faculty includes work on bovine pneumonias (<https://pubmed.ncbi.nlm.nih.gov/41588689/>) as well as collaborative studies on sample pooling approaches for different target pathogens (<https://journals.sagepub.com/doi/abs/10.1177/10406387251405762>) and adapting to changing lab needs and limitations (<https://link.springer.com/article/10.1186/s12879-025-12480-3>)

Article submitted by Catie Burgess, NAHLN-NBAF Regional Scientist, Virginia-Maryland College of Veterinary Medicine, Virginia Tech, Blacksburg, VA.

NAHLN Scientist Introduction

Steve Hollenback

Steve Hollenback processes data and builds reports for the NAHLN, a part of USDA-APHIS Veterinary Services. He holds degrees in Biology, Chemistry, Environmental Engineering, Hydrology and is a certified Motorcycle Mechanic. Steve has published in a variety of fields including Genetic Manipulation, Hydraulic Modeling, Environmental Restoration, and Cheesecake.



Round Up

The NAHLN Program Office bids farewells to:

- Lauren Holinka, Microbiologist
- Kelli Almes, Associate Coordinator

Thank you for your contributions, commitment, time, and service to the NAHLN. Your efforts have been invaluable in moving NAHLN forward. We thank you for your dedication and support over the years.

Abbreviation / Acronym Key

[Volume 17, No.1 Acronym Key](#)



[NAHLN](#)
[USDA](#)
[NVSL](#)
[APHIS-VS](#)
[NIFA](#)
[AAVLD](#)

NAHLN Facts

The following link shows a map and list of laboratories that have been approved as part of the [NAHLN Testing Network](#).



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