



The NAHLN Quarterly | February 2009 |

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

Founding Principles and Features of the NAHLN

- Standardized, rapid diagnostic techniques
- Trained personnel, modern equipment
- Quality standards, proficiency testing
- Secure communication, alert reporting system
- Adequate facility biosafety/biosecurity levels
- Scenario testing

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Input Welcome!

A Note from the Coordinator

The National Animal Health Laboratory Network (NAHLN) has made tremendous progress since its inception in 2002. None of that progress would have been possible without partnerships with all of you! During the NAHLN Review in 2007, we learned that many of our stakeholders would like to receive more information about our activities. This newsletter has been developed with you in mind. We realize that everyone's schedule is hectic, so we've tried to provide brief articles on topics of interest. Each article has a link or a contact where you can go for further information.

I hope that you enjoy the first issue of *The NAHLN Quarterly*. The goal of the Veterinary Services NAHLN staff is to provide the newsletter on a quarterly basis. We plan to let you know about our accomplishments by providing updates on current and upcoming surveillance efforts, training, various working groups, as well as opportunities to participate in various activities. If you have suggestions on articles that should be included or would like to share an article, please contact us at NAHLN@aphis.usda.gov. The information in our newsletter will also be shared in more detail in an annual report.

It's been a privilege to coordinate the activities of the NAHLN over the past four years. I would like to sincerely thank everyone that contributes to the success of the NAHLN. Our partnerships are essential as we work together to safeguard animal health.

We appreciate hearing from you! Are there other topics that you would like to hear about? Please e-mail your comments to us at

NAHLN@aphis.usda.gov

We welcome your submissions. If you would like to contribute an article, please contact us.

Looking forward to continued progress and partnerships,

*Barbara M. Martin
NAHLN Coordinator
National Veterinary Services Laboratories*

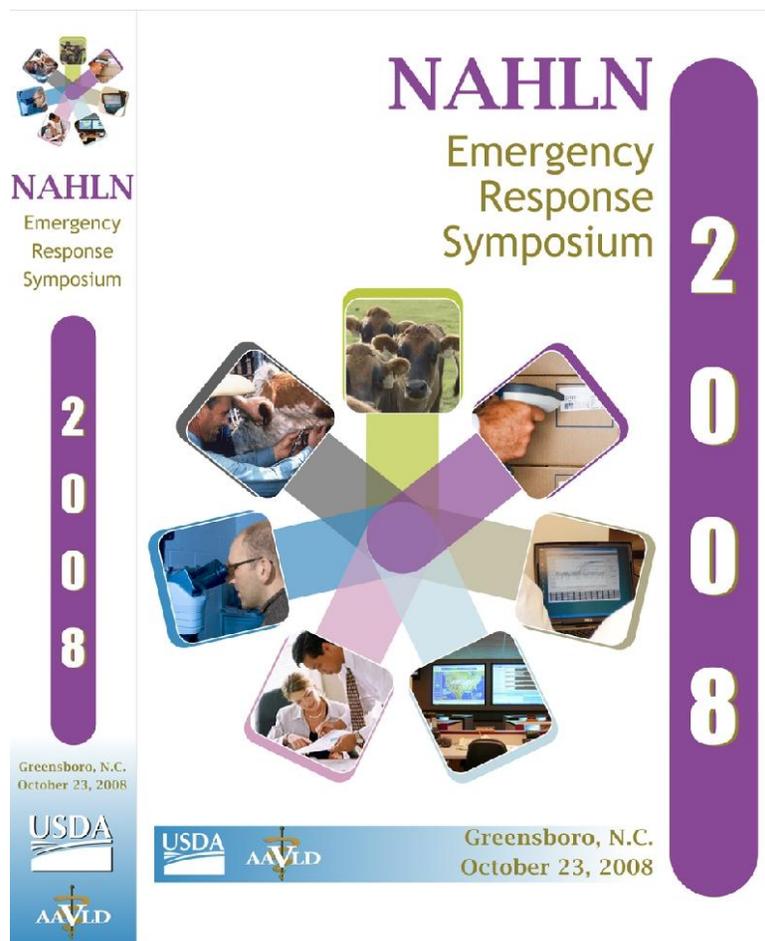
NAHLN Emergency Response Symposium

The NAHLN organized an Emergency Response Symposium that was held in conjunction with the 2008 AAVID and USAHA meeting in Greensboro, North Carolina on October 23, 2008. Topics discussed included: developing and implementing disease response plans, VS and State; roles and responsibilities during an outbreak; modeling to determine laboratory capacity; using bar-coding and IT to increase efficiency; NAHLN AI and other exercises; National Veterinary Stockpile, development and outreach; FMD vaccine bank; use of mobile laboratories; and integrated response. The summary report is available by clicking on the following link:

[2008 Symposium Evaluation Summary](#)

Powerpoint presentations from the 2008 NAHLN Emergency Response Symposium are also available below:

- [Palo Duro Exercise, Beckham](#)
- [Australian Equine Influenza Response, Kirkland](#)
- [NAHLN Avian Influenza Exercises, Speers & Silverman](#)
- [FMD Exercise - Pork Board, Webb](#)
- [Integrating Laboratory, State & Federal Disease Response Plans, Marshall](#)
- [Roles & Responsibilities During an Outbreak, Zack](#)
- [Modeling to Determine Laboratory Capacity, Lynn](#)
- [Saturation Modeling, Forde-Folle](#)
- [The IT Component - Bar Coding & Integrating Data Transfer, Case](#)
- [National Veterinary Stockpile Outreach, Reagents, & Supplies, Myers](#)
- [FMD Vaccine Bank & Impact on Diagnostic Assay Use, Duque](#)
- [Use of Mobile Laboratories, Levings](#)
- [National Level Exercise - 2010, Teachman](#)
- [Other Exercises & Drills - Feedback & Suggestions for the Future, Blanchard & Clothier](#)



Avian Influenza (AI) Tabletop Exercises

The week of February 11, 2008, the NAHLN Avian Influenza tabletop exercise was beta tested in IA and OH. The exercise moved the participants through challenges encountered during an outbreak of highly pathogenic avian influenza focusing on laboratory issues with field input. Participants gained an enhanced awareness of laboratory issues they will encounter during an outbreak and had the opportunity to assess the completeness of their response plans in regard to testing, training, and enhancement of resources and their readiness to deal with an HPAI H5N1 outbreak. The tabletop was provided to NAHLN laboratory personnel and other animal health professionals in facilitated sessions throughout the United States during 2008. A total of 38 exercises were conducted with over 700 participants from various groups including State and Federal representatives from animal health, industry, public health, and wildlife health. An after action report was provided to participants for each exercise location. A summary report will be provided to USDA, APHIS, VS and will be used to assist in prioritizing the actions needed to address issues.

A complete listing of the scheduled AI Tabletop Exercises can be found at:

AI Tabletop Exercises



AI Exercise at Washington Animal Disease Diagnostic Laboratory
in Pullman, Washington

Pseudorabies Surveillance

Surveillance for swine pseudorabies virus (PRV) is changing. Veterinary Services (VS) National Center for Animal Health Program staff has begun implementing the new PRV surveillance plan.

The PRV surveillance plan outlines numerous surveillance streams. Some of these streams remain from the previous program, some will be modified, and some need future development. The objectives of these streams include rapid disease detection and demonstration of disease freedom. Implementation began on January 1, 2009 when the existing cull breeding animal surveillance program was modified to allow a reduction in cull sow-boar testing. Additionally, with the assistance of the National Veterinary Services Laboratories' officials, laboratories have been contacted to determine their interest in participating in the PRV program as a NAHLN testing laboratory. Currently, responses are under review by VS officials. VS officials expect to determine NAHLN laboratories and implement a new serology testing stream by late spring or early summer. The surveillance plan is publically posted and can be viewed through the following web site: [Pseudorabies Surveillance Plan](#). For questions, contact Troy Bigelow at (515) 284-4121 or via e-mail at troy.t.bigelow@aphis.usda.gov.

Submitted by Troy Bigelow, Staff Veterinarian USDA, APHIS, Veterinary Services, National Center for Animal Health Programs (NCAHP).

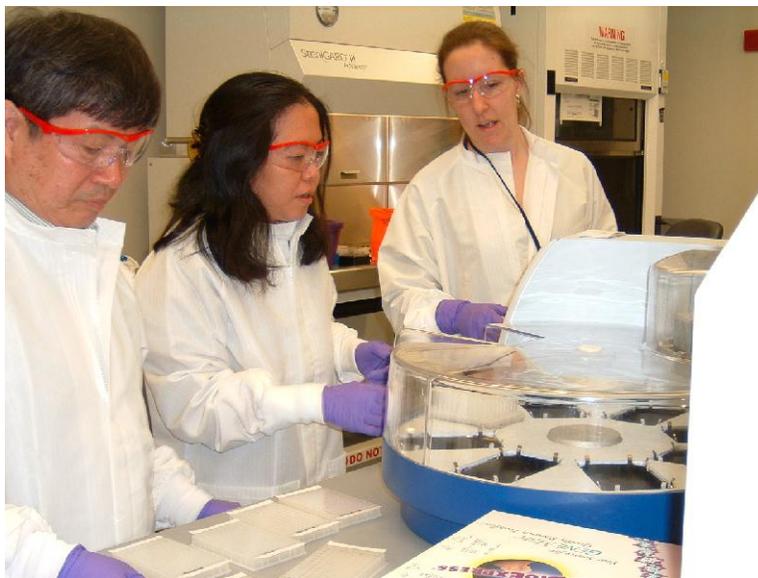
High-Throughput Equipment Training

One of the primary missions for the National Animal Health Laboratory Network (NAHLN) is to conduct surveillance testing for early detection of animal disease, as well as to develop and ensure adequate capacity to respond to diagnostic testing needs during an outbreak. The ability to process thousands of diagnostic samples in a timely manner will be critical. To meet this goal, automated, high-throughput equipment has been purchased and distributed to NAHLN laboratories based on a risk-based model for the introduction and spread of high pathogenicity avian influenza.

VS NAHLN sponsored High-Throughput Equipment training, hosted by Kansas State University's Biosecurity Research Institute in Manhattan, Kansas, with instructors from the National Veterinary Services Laboratories (NVSL), Diagnostic Virology Laboratory in Ames, Iowa and Foreign Animal Disease Diagnostic Laboratory in Plum Island, New York. Sessions were held the weeks of May 19, June 23, and July 22, 2008. Representatives from 31 NAHLN laboratories participated in the two-day training course that included an overview of High-Throughput systems, instruction on equipment programming, and breakout sessions that gave hands-on use of each piece of equipment. The systems have been validated for use with real time PCRs for Avian Influenza (AI), Classical Swine Fever (CSF), and Foot and Mouth Disease (FMD). High-Throughput training was conducted in a similar manner as a "Train the Trainer" program. Following training, each laboratory representative completed a proficiency test. After successfully completing the proficiency test, they may train other personnel in their laboratory, who will then be proficiency tested.

Attached is the participant evaluation summary of the 2008 NAHLN High-Throughput Training:

[2008 High-Throughput Summary](#)



High-Throughput Equipment Training at the
Kansas State University's Biosecurity Research Institute

Working Group Updates

VS Memorandum 580.4 Laboratory Issues Working Group

VS Memorandum 580.4 is the document that provides the procedures for investigating a suspected foreign animal or emerging disease incident. It outlines the responsibilities of Area Veterinarians in Charge (AVIC), the Foreign Animal Disease Diagnostician (FADD), and the National Veterinary Services Laboratory (NVSL). It includes information on making the determination if there will be a site visit, a laboratory submission, and an epidemiology investigation. It also includes the reporting responsibilities.

The memo was written prior to the formation of NAHLN and was revised to include using the NAHLN laboratories in FAD investigations. A **Laboratory Issues Working Group** was formed and started having conference calls in June 2008. The working group provided suggested changes to VS Memo 580.4, and revised and developed guidance documents covering sample collection, testing scenarios, discordant results, and response plans. All the documents were sent to the American Association of Veterinary Laboratory Diagnosticians (AAVLD) Laboratory Directors for comments in September 2008.

VS Memo 580.4 now includes more information concerning communication and roles and responsibilities of the various partners. This memo was signed in October 2008 and is now available. The following guidance documents developed by the VS Memo 580.4 Laboratory Issues Working Group are also available: Link to: [Sample Collection](#), [Testing Scenarios](#), [Discordant Results](#), and [Response Plans](#).

Toxicology Working Group

The **Toxicology Working Group** of the National Animal Health Laboratory Network (NAHLN Tox) was established in May, 2007 in recognition of the need for a National plan to support, coordinate, and establish formal lines of communication among the existing state veterinary analytical toxicology laboratories and appropriate governmental agencies in the U.S.A. It is comprised of professionals from state veterinary diagnostic laboratories who analyze and diagnose chemical toxicoses and deficiencies in animals. A great strength of this system is that analytical toxicology laboratories with highly trained professionals and established analytical methods already exist in AAVLD-accredited veterinary diagnostic laboratories in many states throughout the country. However, the personnel, instrumentation, state-of-readiness and surge capacity of these state/university analytical toxicology laboratories are highly variable due to wide differences in past and current funding. In addition, they lack an infrastructure to work in a defined and coordinated manner with central authorities. There are now opportunities to augment these laboratories, to link them into a cohesive and responsive network capable of recognizing and meeting threats to our Nation's livestock and food supply, and to assist in prevention through outreach and extension efforts.

The **Mission of the Toxicology Group** of the National Animal Health Laboratory Network (NAHLN Tox) is to integrate the Nation's Veterinary Toxicology laboratories into a coordinated network with the capability of analyzing for chemical toxicants and for rapid recognition, identification and response to chemical emergencies.

It is our Vision that NAHLN Tox will develop an integrated network of fully equipped veterinary diagnostic toxicology laboratories which will provide coordinated surveillance of our Nation's livestock

and companion animals for chemical toxicants through the rapid recognition and identification of new and emerging adverse chemical events with effective communication of those findings to decision-making agencies.

For additional information, please contact:

Stephen B. Hooser, DVM, PhD, DABVT, Chair, NAHLN Tox, shooser1@purdue.edu

or

Robert Poppenga, DVM, PhD, DABVT, Co-Chair, NAHLN Tox, rhpoppena@ucdavis.edu

Revisions to the NAHLN Checklist

The [NAHLN Checklist](#) and [Policy Document](#) have been revised to incorporate the potential use of NAHLN laboratories in foreign animal disease investigations and to ensure that each NAHLN laboratory has implemented a quality system. The VS NAHLN staff has provided background information on the changes and the revised documents to NAHLN Laboratory Directors and hosted a web-conference to provide opportunities for discussion. The [powerpoint presentation](#) used during the web conference and answers to questions were provided to all NAHLN laboratories.

The revised NAHLN Checklist and instructions for completion were sent to the NAHLN laboratories for completion by February 27, 2009. The NAHLN Checklist must be signed by the NAHLN Laboratory Director, the Biosafety Officer, the State Animal Health Official, the AVIC, and a representative from the State Department of Agriculture, if applicable.

In order to increase and improve understanding of NAHLN commitments, the NAHLN Checklist will be provided to the laboratories for annual completion.

In Memory of Ron Wilson



Ronald B. Wilson

June 27, 1954 - October 5, 2008

Dr. Ron Wilson passed away Sunday, October 5, 2008, at his residence surrounded by his family.

Dr. Wilson was the current Tennessee State Veterinarian and **Director of C. E. Kord Animal Disease Diagnostic Laboratory in Nashville, Tennessee.** Dr. Wilson grew up in Michigan and

received both his Bachelor of Science and Doctor of Veterinary Medicine degrees with high honor from Michigan State University. After receiving his Doctor of Veterinary Medicine he entered private practice in Perry, Michigan until June of 1979 when he began a three year residency in anatomic pathology at the University of Tennessee, College of Veterinary Medicine. After completing his residency in pathology, he began his career as a veterinary diagnostician at the C. E. Kord Animal Disease Diagnostic Laboratory, where he was later promoted to Manager of Pathology Services in 1991 and, in 1995, was appointed to the position of director. In addition to his laboratory responsibilities, Dr. Wilson served as the State Veterinarian since November 1999. He also served as an Adjunct Professor of Pathology at the University of Tennessee, College of Veterinary Medicine and Adjunct Assistant Professor of Pathology at Vanderbilt University, College of Medicine.

Dr. Wilson was active in several professional organizations including the American Veterinary Medical Association, the American Association of Veterinary Laboratory Diagnosticians, United States Animal Health Association and the Tennessee Veterinary Medical Association of which he served as Chairperson of the Regulatory and Public Health Committee. He was also former president of the Southern Animal Health Association and **served on the National Animal Health Laboratory Network (NAHLN) Steering Committee**, an auditor for the Laboratory Accreditation Committee, American Association of Veterinary Laboratory Diagnosticians (AAVLD) and Southeastern District Representative, Executive Committee, AAVLD. He also held Diplomate status with the American College of Veterinary Pathologists. In 2004, he received the Tennessee Veterinary Medical Association Distinguished Service Award in recognition of tireless service and outstanding leadership on behalf of the veterinary medical profession, animal health, and the community.

We have appreciated Dr. Wilson's contribution to the NAHLN Mission. He will be greatly missed.

NAHLN Facts

The following links show a map and laboratory list of the laboratories that have been approved as part of the NAHLN testing network:

Avian Influenza (AI) Laboratories (54): [Map](#) and [Laboratory List](#)
Bovine Spongiform Encephalopathy (BSE) Laboratories (8): [Map](#) and [Laboratory List](#)
Chronic Wasting Disease (CWD)/Scrapie Laboratories (25): [Map](#) and [Laboratory List](#)
Classical Swine Fever (CSF) Laboratories (38): [Map](#) and [Laboratory List](#)
Foot and Mouth Disease (FMD) Laboratories (38): [Map](#) and [Laboratory List](#)
Newcastle Disease (ND) Laboratories (52): [Map](#) and [Laboratory List](#)
Vesicular Stomatitis Virus (VSV) Laboratories (7): [Map](#) and [Laboratory List](#)

For more information on the NAHLN, visit the [NAHLN Home Page](#)

Upcoming Events

-XIV International Symposium of the World Association of Veterinary Laboratory Diagnosticians (WAVLD), Madrid, Spain, NAHLN Session, **June 19, 2009**. Link to: [WAVLD Symposium](#).

-52nd Annual AAVLD/USAHA Meeting, October 7-14, 2009.
Link to: [2009 AAVLD/USAHA Meeting](#).

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