Veterinary Services

NATIONAL VETERINARY SERVICES
LABORATORIES UPDATE

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U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES
SCIENCE, TECHNOLOGY AND ANALYSIS SERVICES
NVSL Mission

To safeguard U.S. animal health and contribute to public health by ensuring that timely and accurate laboratory support* is provided by a nationwide animal health diagnostic system.

- Reference and confirmatory laboratory for USDA

  FY16 > 43,000 accessions and >400,500 tests approved.

* Includes both domestic and foreign animal diseases
NVSL Activities

NVSL Peer Review – programmatic review with participants from SPRS, NIES, One Health, AAVLD, NASAHO and several commodities

Proposed Laboratory Framework regulation – consolidation of current laboratory approval regs for various diseases

Reaccreditation to ISO 17025 and 9001 standards
Diagnostic Virology Laboratory Updates
Diagnostic Virology Laboratory

Hired Dr. Tracy Sturgill-Samayoa as Equine Ovine Viruses Section Head

Hired Dr. John Schiltz as BPA Section Head
Diagnostic Virology Laboratory

PRV (China HeN1)
- MTA signed with Harbin Veterinary Research Institute March 2015
- Pig studies completed.
  - Currently available serologic tests will detect
  - VI and PCR will detect
- Vaccines available in the U.S. appeared to confer some protection.
Diagnostic Virology Laboratory

Eastern, Western, Venezuelan Equine Encephalomyelitis
- Collaboration with Central America
- Chimeric (Sindbis) viruses grown in cell culture and working on inactivation. Will support Central American testing needs.

Bluetongue-establishing WGS

Aquaculture
- Completed salt water phase of ISA project
- Confirmation of SVCV in imported newts
Diagnostic Virology Laboratory

Confirmation of H7N8, North American lineage, HPAI from turkeys in Indiana

Confirmation LPAI, North American lineage, H5N1 from a commercial meat turkey flock in Missouri

Confirmation of H5/H7 presumptives from wildbird surveillance
  ◦ Confirmation of HPAI H5 clade 2.3.4.4 virus from Alaska mallard duck
Diagnostic Bacteriology Laboratory Updates
Diagnostic Bacteriology Laboratory

Production of NVSL PPD products for use in the Cattle TB Gamma Interferon Test (Bovigam)

- Replacement of commercial Lelystad PPDs due to increased false positive rate
- Collaborative effort by Cattle Health Center, TB Epidemiologists, DBL, and ARS
- Distributed NVSL PPDs to all approved testing laboratories
Collaboration with ANSES laboratory in France to obtain *Trypanosoma equiperdum* strain OVI for reagent production to improve dourine diagnostics.

Side by side comparisons of the American strain antigen and OVI strain antigen are being conducted on 1600 samples.
Diagnostic Bacteriology Laboratory

Updated CEM guidance document – “Approval of and Requirements for Laboratories to Conduct Tests for Contagious Equine Metritis”

NVSL is continuing to provide support for equine piroplasmosis outbreak in the western U.S.

NVSL provided testing support for a recent Brucella suis outbreak in the northeast US.
Pathobiology Laboratory Updates
Pathobiology Laboratory

Support VS CWD and Scrapie Programs
  ◦ Tested 4,323 CWD samples
  ◦ Tested 3,510 Scrapie samples

Support for VS BSE Surveillance
  ◦ Tested 2,300 BSE ELISA samples

Support for NAHLN Laboratories
  ◦ Administered proficiency tests for BSE ELISA, CWD ELISA, IHC for CWD/Scrapie
Support VS TB Eradication Program

- Tested 6,947 TB samples
- For FY 2016, PL identified 15 TB cases through slaughter surveillance.
- Of these, one was a cow and 14 were fed cattle.
• **Identification of screwworm larvae from deer in the FL Keys**
• Parasitology projects:
  – Assisted MT, OR, UT, & WY by identifying 18 cases of exotic lice (*Bovicola tibialis*) associated with “hair loss syndrome” in mule deer
  – Collaborating with Georgia Southern Univ. on identification guide for larval ticks of the U.S.
Websites

National Veterinary Services Laboratories


National Animal Health Laboratory Network

http://www.aphis.usda.gov/animal_health/nahln/
• NVSL Main Line
  • 515-337-7266

• NVSL Director’s Office
  • 515-337-7301

• National Animal Health Laboratory Network (NAHLN)
  • 515-337-7331

• Diagnostic Bacteriology Laboratory
  • 515-337-7568

• Diagnostic Virology Laboratory
  • 515-337-7551

• Pathobiology Laboratory
  • 515-337-7526

• Foreign Animal Disease Diagnostic Laboratory
  • 631-323-3256
Questions?