

## Emerging Diseases Council Report

2015 NIAA Annual Conference

Wednesday, March 25, 2015



The Emerging Diseases Council met on Wednesday, March 25, 2015 from 8:00 a.m. to 11:30 p.m. during the 2015 NIAA Annual Conference in Indianapolis, Indiana, with approximately 15 people present. Dr. Carla Huston served as Chair (Co-chair Dr. Lora Ballweber unable to attend).

The Emerging Diseases Council session focused on diseases that have emerged or re-emerged as economically important diseases in livestock over the past several years. Two diseases discussed have only recently been identified in the US (HPAI and Swine coronaviruses PEDv and PDCv), while VSV and trichomoniasis have increasingly caused economic losses in cattle and equine populations, respectively. The following speakers presented relevant information pertaining to new information surrounding the epidemiology, diagnosis, control, and prevention of these diseases in the US livestock population.

**Victor Velez, Animal Health and Food Safety Services, California Department of Food and Agriculture,** presented an "HPAI Update," focusing on the two HPAI outbreaks in California. The first outbreak detected was in a group of turkeys in a commercial operation, and the second occurred in an operation with both chickens and ducks that participated in live-market trade. Given past TB and LPAI outbreaks in California, the CDFA, USDA, and local partners were well-prepared to deal with the HPAI outbreak and had Incident Management Teams (IMT) in place. Laboratory procedures included improved SOP's for sample labeling (new barcodes), sample packaging, and sample delivery. Private contractors were used for depopulation. Waterfowl are believed to be the source of both outbreaks. Maps depicting the bird migratory pathways from Asia to Alaska, then on through Canada and the Mississippi flyway, show how the disease may have spread from China. In California, strong educational and outreach programs are in place to keep all stakeholders aware of risks for disease and biosecurity measures to reduce such risks. Important stakeholders include feed stores, swap meets, pet shops, and private owners or backyard flocks. Questions following the presentation centered around depopulation issues and activities of the IMT.

**Christie Mayo, DVM, Colorado State University,** presented a "VSV Update" from the perspective of the CSU diagnostic laboratory, which collaborated with the USDA APHIS and the CO state veterinarian during the 2014-2015 outbreaks. She gave an overview of the history of the disease as well as transmission considerations, including insects, direct contact, fomites, and possibly plant materials. Unique clinical signs in the ears of affected horses warranted 2014 with the title of the "year of the ear." Newer diagnostic testing methods are being evaluated such as C-ELISA and CF since the VI is so time consuming. The SN test is still the test required for most international exports. PCR not currently evaluated for equine, but has been validated for cattle. Vaccines which are available in central and south America against VSV were not used in the US outbreak.

The outbreaks in 2014 involved horses in 4 states (AZ, TX, CO, and NE). All states except AZ also had cases in bovine species. FADD samples went to NVSL in Ames, IA for horses, and PIADC for cattle and pigs. The last quarantine was lifted in Arizona on March 13, 2015.

VSV in horses has been delisted as a reportable disease by the USDA, but remains reportable at the state level. There is some concern that as any accredited veterinarian is allowed to take samples from horses for VSV, the costs of testing will shift from USDA to the owner. This will also result in practitioners responsible for a large increase in paperwork. Another proposed change is to reduce the quarantine from 30d to 14d since it was felt that animal movements did not play a big role in transmission of the disease, rather, insect vectors were more to blame, which would not be impacted by movement restrictions. Discussion following the presentation focused on the after action report, which questioned how to engage accredited veterinarians, and how to utilize the NAHLN system. Questions also arose concerning specific diagnostic testing methods.

**Mark Engle, DVM, MS, Merck Senior Technical Services Manager, Swine Business Unit**, presented "Swine (Corona Virus) Update." A brief update on several emerging swine diseases was presented, including Ebola, African Swine Fever, and Classical Swine Fever. Most of the presentation involved swine coronaviruses, specifically the swine alphacoronavirus PEDv and deltacoronavirus (PDCoV), PEDv was first discovered in the US in 2013 (2 variants), and PDCoV was discovered in 2014. Potential sources include vitamin/mineral premixes from china (not confirmed). Federal, state, and industry cooperation has been swift and communication has been very open for the most part. This has resulted in increased funding for research and the development and/or implementation of several new initiatives such as the Swine Health Monitoring Project, The Secure Pork program, Rapid Response Teams, and the NPPC Emerging Disease Response Plan. In addition, the NPB- funded Swine Health Information Center is a virtual center which uses the AgConnect platform through DHS' FAZD center.

The AAEP/CEAH Virus Matrix Exercise was presented as a collaborative effort to rank swine diseases of importance according to economic importance, risk of introduction/reintroduction, and zoonotic potential. The top 9 viruses, in order of importance, were: FMDV, ASF, Influenza A, CSF, PRV, SVD, VSV, PRRSV, Swine enteric corona (PEDv and SDCoV).

**Dee Ellis, DVM, State Veterinarian, Texas Animal Health Commission**, presented "Trichomoniasis Update." The most recent update from a federal perspective is the addition of a USDA accreditation module (NVAP module 27) titled Bovine Trichomoniasis. There are currently 23 modules, and 4 new ones (including trich) are expected in 2015. Most states with trich programs have their own trichomoniasis certification program for veterinarians to allow them to collect samples, and this module may or may not be used at the state level for training of veterinarians.

Regionally, the Western States Livestock Health Association (WSLHA) was formed to address issues such as the negative economic impacts of the disease, confusion moving animals intrastate, lost opportunities for producers, and inconsistencies in programmatic policies. The WSLHA passed a resolution in attempt to standardize several requirements for trich testing, including: 1 – virgin bulls defined up to 18 months, 2 – negative trich test valid up to 60 days, and 3 – acceptance of a single PCR collected by an accredited veterinarian. A consensus on pooling of samples was not met. In Texas, over 29,000 bulls were tested in 2014 with an estimated prevalence of 2.5%. There are currently 129 herds under quarantine due to trich. Additional areas of concern faced in TX include salebarn testing and ownership, the creation of virgin bull certificates, and quarantine of positive females. Three states (CO, TX, OK) currently have a "certified free herd" program, where whole-herd testing is done in bulls for 3 years in a row, with testing of slaughter animals.

**Old Business:** No new business was discussed.

**New Business:**

- There were no new resolutions presented for consideration. One resolution was removed (allowed to sunset), and two were reaffirmed. In addition, two resolutions were amended.
- There were no action items requested.
- Consensus Points for NIAA White Paper Development
  - 1) Emerging and re-emerging diseases will continue to find their way into the US livestock populations
  - 2) Education and outreach to stakeholders is critical to developing and implementing disease control programs
  - 3) States need to work together on the control of non-regulatory diseases as interstate movements become more and more widespread.
  - 4) Integrated, “all-hazards” approaches to disease control are necessary to limit the impacts of emerging and reemerging diseases

**Emerging Diseases Council Session adjourned at 11:45 am.**