

## **USAHA/AAVLD COMMITTEE ON AQUACULTURE**

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The Committee met on October 2, 2011 at the Adam's mark Hotel, Buffalo, New York, from 12:30 to 3:30 pm. There were 12 members and 18 guests present. The meeting began with a discussion of committee procedures. The formal Federal response to the 2010 Aquaculture committee resolution "USE OF THE LACEY ACT TO REGULATE ANIMAL PATHOGENS" was reviewed. The committee then considered the following presentations.

### **Update on the Collaborative Effort to Evaluate VHSV Real Time RT-PCR Assays**

#### **Janet Warg, NVSL**

In response to the aquaculture committees previous resolution asking the USDA-APHIS to evaluate real time PCR assays for the detection of VHSV, a VHSV technical working group was formed and worked on the first and second phase of the project in 2010 and 2011. Seven labs were selected to be included in the trial with the first phase involving three labs and the second phase expanding to include seven labs. Four different assays were evaluated and included, 1) an assay developed by Cornell to detect VHSV IVb, 2) an assay developed in Canada by Dr. Garver, 3) an developed in Minnesota by Nick Phelps (modified Garver assay that is a single step reaction), and an assay developed by Olesen/Jonstrup in Denmark. VHSV genotypes I, II, III, IVa, IVb and IVb/c were used. The limits of detection for the first phase of the study concluded that 1) the Danish assay had high-medium to high detection for all genotypes, 2) Minnesota and Canadian assay had medium to high detection for all genotypes, 3) the Cornell assay was unable to detect genotype I and had low detection of genotype II. The amplification efficiencies were similar between genotypes, but there was some variation between labs. The Danish and Minnesota assays were selected for further evaluation and the testing was expanded to all seven laboratories and evaluated the assays for testing on the genotype IV isolates. The testing was evaluated across multiple platforms, software, and laboratories with variable experience levels. Also the analytical specificity, impact of tissue type on detection and Diagnostic Se/Sp were evaluated. Testing was completed on Sept 9<sup>th</sup> 2011. Preliminary results showed that the estimates for the limit of detection and analytical specificity for the Danish assay were similar, estimates of intra and inter assay performance within a laboratory and across laboratories appear to be more consistent for the Danish assay, the tissue types did not appear to impact the ability to call a sample positive or negative. Diagnostic tissue panel was distributed to the laboratories. Each panel contained 200 positive samples and 200 negative samples as determined by the current gold standard of virus isolation. The results showed that laboratories having experience with high throughput had higher diagnostic Se and Sp than laboratories with less or no previous experience regardless of the assay method. The percentage of positive or negative correct calls for the Danish assay ranged from 91 to 99%. The percentage of positive and negative correct calls for the Minnesota assay ranged from 81 to 99%. The final data is going to be reviewed by the working group and a final report will be forthcoming.

### **National Aquatic Animal Health Plan (NAAHP)**

#### **Dr. Janet Whaley, APHIS**

The NAAHP, developed in collaboration with the National Oceanographic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service (FWS), was completed and made available for public comment in November, 2008. The original intent was to update the NAAHP every 5 years, therefore will be planning for 2013. Implementation of the NAAHP will be guided by a Federal Advisory Subcommittee under the Secretary 's Advisory Committee on Animal Health (FACA committee)

### **Viral Hemorrhagic Septicemia (VHS)**

#### **Dr. Janet Whaley, APHIS**

APHIS will publish the viral hemorrhagic septicemia (VHS) regulation as a proposed rule rather than an interim rule to allow more time for public comment. The rule and supporting economic and environmental

assessments are undergoing internal review and APHIS will seek input from the SAAH on specific issues. The SAAH will provide additional recommendations. Additional discussions with other stakeholders including Tribal groups will be carried out.

### **Canadian Fish Import Regulations**

#### **Dr. Janet Whaley, APHIS**

On December 22, 2010, the Canadian Food Inspection Agency (CFIA) published Canada Gazette, Part II, which changes their *Health of Animals Regulations* and *Reportable Diseases Regulations*. The regulation list over 400 species of finfish, mollusks and crustacean species, including live and dead animals for specific end uses. Listed species will require aquatic animal import permits issued by CFIA and zoosanitary certification from the Competent Animal Health Authority in the country of origin. The specific conditions of the import permit and language of the health requirements are still being developed by CFIA. APHIS is working with NOAA and FWS as well as stakeholders to assist Canada in the development of their specific import requirements and language (i.e., permit and zoosanitary conditions) in order to facilitate continuous US trade in aquatic animals and products with Canada.

### **Training for APHIS Field VMOs**

#### **Dr. Janet Whaley**

The roles of the APHIS VS "Aquaculture Liaisons" include knowing the aquaculture industries in their area, being familiar with all VS regulations, memoranda, and other policies for farmed aquatic animals; being prepared to respond to aquatic animal disease outbreaks or emergencies; conducting facility registrations and lab inspections as requested by stakeholders; acting as a point of contact between APHIS and accredited veterinarians who work in aquaculture. As part of the National Veterinary Accreditation Program, three modules have been developed focusing on Aquaculture and the following website provides a description of the modules ([http://www.aphis.usda.gov/animal\\_health/vet\\_accreditation/downloads/nvap\\_modules.pdf](http://www.aphis.usda.gov/animal_health/vet_accreditation/downloads/nvap_modules.pdf)). The first module is scheduled to be released in October 2011 and the next two in 2012.

### **Current Status of the National Aquatic Animal Pathogen Testing Network**

#### **Dr. Jill Rolland, APHIS**

The USAHA/AAVLD draft NAAPT plan was completed in Sept 2009. The first NAAPT Steering Committee meeting was in May 2010. The Steering Committee appointed a VHS technical working group that met in June 2010. That group produced a SOP for VHS in July 2010 and it was reviewed by Steering Committee November 2010. The Steering Committee will reconvene at a later time and will fit into the USDA FACA structure under the Subcommittee on Aquatic Animal Health.

### **Permit Requirements for Shipping Aquatic Animal Pathogens**

#### **Dr. Jill Rolland, APHIS**

Dr. Rolland cleared up some confusion about permit requirements. Permits for importation and interstate movement of livestock pathogens are found in 9 CFR §122 where there is broad-based language about permit requirements. However, NCIE policy is to permit pathogens for which we have developed specific regulations (i.e. SVC, ISA and VHS). Regulatory options to clarify language in 9 CFR §122 are currently being pursued.

### **An introduction to its Fish Health Centers and its Role in U.S. Animal Health**

#### **Dr. Joel Bader, USFWS**

Dr. Bader provided an overview of the USFWS role in aquatic animal health. He then addressed the Committee's 2010 resolution on the use of the Lacey Act to regulate animal pathogens. In his report briefly summarized the more than 500 public comments received regarding the USFWS request for information regarding the possible listing of amphibians infected by Chytrid fungus as injurious species. The USFWS is currently reviewing those comments and will formulate a response in the coming months.

### **Committee Business**

The committee received the information presented and was pleased by the Federal response and activity that appears to have resulted from three previous Committee resolutions (Funding for a National Fish Health Laboratory Network, development of a National Aquatic Animal Pathogen Testing Network, and Validation of qPCR for Viral Hemorrhagic Septicemia Surveillance). Committee members were not in favor of putting forth any new recommendations or resolutions. The meeting was adjourned.