

## REPORT OF COMMITTEE ON IMPORT, EXPORT AND INTERNATIONAL STANDARDS

Chair: Dr. Linda C. Glaser  
Vice Chair: Dr. Mo Salman

Bobby Acord, NC; Celia Maria Antognoli, CO; Mohit Baxi, ON; Bob Bokma, MD; Joyce Bowling-Heyward, MD; Charles Brown II, WI; Stan Bruntz, CO; Bruce Carter, IA; Rod Chitty, IA; John Clifford, DC; Karen Conyngham, TX; Michael David, MD; Ron DeHaven, CA; Ignacio dela Cruz, MP; Jacques deMoss, MO; Adis Dijab, AL; Larry Elsen, IA; Conrad Estrada, VA; Anna Claire Fagre, CO; William Fales, MO; John Fischer, GA; Katherine Flynn, CA; Mallory Gaines, CO; Julie Gard, AL; Donna Gatewood, IA; Cyril Gay, MD; Paul Gibbs, FL; Linda Glaser, MN; Gail Golab, IL; Tony Good, OH; Kristin Haas, VT; Keith Haffer, SD; Percy Hawkes, UT; Rick Hill, IA; Robert Hilsenroth, FL; Donald Hoenig, ME; Dudley Hoskins, VA; Brad Hoxit, NC; Marv Jahde, KS; Annette Jones, CA; Susan Keller, ND; Bruce King, UT; Elizabeth Lautner, IA; Randall Levings, IA; Linda Logan, TX; Travis Lowe, MN; Kevin Maher, IA; Bret Marsh, IN; Brittany McCauslin, NZ; Shirley McKenzie, NC; Sara McReynolds, ND; David Meeker, VA; Emily Meredith, VA; Antone Mickelson, WA; Gay Miller, IL; Eric Mohlman, NE; Sandra Norman, IN; Kristen Obbink, IA; Kenneth Olson, IL; Elizabeth Parker, TX; William Pittenger, MO; John Ragan, VA; Tim Richards, HI; Paul Rodgers, WV; James Roth, IA; Mo Salman, CO; David Scarfe, IL; Travis Schaal, IA; Shawn Schafer, OH; Charly Seale, TX; Laurie Seale, WI; Sheryl Shaw, WI; Rosemary Sifford, NC; Kathryn Simmons, DC; Jonathan Sleeman, WI; Fred Soltero, PR; Matthew Stone, NZ; Manoel Tamassia, NJ; Susan Tellez, TX; Peter Timoney, KY; Alberto Torres, AR; Paul Ugstad, NC; Charles Vail, CO; Mark Walter, PA; James Watson, MS; Patrick Webb, IA; Roger Weigle, WI; Richard Willer, HI; Brad Williams, TX; Mary Anne Williams, TX; William Wilson, KS; Josh Winegarner, TX; Nora Wineland, MO; David Winters, TX; Richard Winters, Jr., TX; Cindy Wolf, MN.

The Committee met on October 16, 2016 at the Sheraton Greensboro Hotel, Greensboro, North Carolina from 12:30 to 5:45 p.m. There were 34 members and 22 guests present. Dr. Linda Glaser unfortunately could not attend the meeting in person but she was on the phone for the entire meeting. Dr. Don Hoenig supported the organization of the meeting. Appendix A depicts the agenda for the meeting. Presentations and reports are summarized below; some of the presentations as per agreement with the speakers are included as attachments.

### Summary of 2016 OIE General Session

John Clifford, USDA-APHIS-VS; World Organization for Animal Health (OIE)

Dr. John Clifford presented the outcome from the 84th General Session of the OIE which was held May 22-28, 2016, in Paris, France. Clifford indicated that there were 144 of the 180 OIE Member countries and territories, as well as observers from 41 regional and international organizations attended the meeting. There were close to 800 registered attendees. The OIE is the body recognized by the World Trade Organization (WTO) for standard-setting in animal health. The OIE develops and establishes the health standards for the safe trade of animals and animal products and makes recommendations for the overall well-being of animals.

The Delegation from the United States for the 84<sup>th</sup> OIE General Session was the highest number in the history of participation of USA in OIE.

Members of the U.S. delegation attending the 84<sup>th</sup> General Session from USDA/APHIS were:

- Dr. Jack Shere, Chief Veterinary Officer, and Deputy Administrator, USDA, Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS)
- Dr. John Clifford, Chief Trade Advisor, and U.S. OIE Delegate, USDA-APHIS-VS
- Dr. Michael David, National Director, National Import Export Services (NIES), International Animal Health Standards Services, USDA-APHIS-VS
- Dr. Beverly Schmitt, Director, National Veterinary Services Laboratories (NVSL), USDA-APHIS-VS, and President of the OIE Biological Standards Commission
- Dr. Mark Davidson, Associate Deputy Administrator, NIES-USDA-APHIS-VS
- Dr. Jacek Taniewski, Director, Export Animals, NIES-USDA-APHIS-VS
- Dr. Karen Sliter, Regional Manager, APHIS, International Services, Brussels, Belgium

Representatives attending from other U.S. government agencies were:

- Dr. Bettye Walters, Office of the Director, International Programs, Center for Veterinary Medicine, U.S. Food and Drug Administration
- Dr. Michelle Colby, Agricultural Defense Branch Chief, Science and Technology Directorate, Department of Homeland Security (DHS)

Association and industry representatives who accompanied the U.S. delegation were:

- Dr. Boyd Parr, President-elect, U.S. Animal Health Association (USAHA)
- Dr. Patrick Halbur, President-elect, American Association of Veterinary Laboratory Diagnosticians (AAVLD)
- Dr. Paul Sundberg, Executive Director, Swine Health Information
- Dr. Elizabeth Parker, Chief Veterinarian, Institute for Infectious Animal Diseases
- Dr. Kathy Simmons, Chief Veterinarian, National Cattlemen's and Beef Association (NCBA)
- Dr. Liz Wagstrom, Chief Veterinarian, National Pork Producer's Council
- Dr. Gail Golab, Chief Advocacy and Public Policy Officer, American Veterinary Medical Association (AVMA)
- Dr. Jamie Jonker, Vice-President, Scientific and Regulatory Affairs, National Milk Producers Federation
- Dr. Guillermo Zavala, Director of Veterinary Services, USA Poultry and Egg Export Council

The President of the World Assembly, Dr. Bothe Michael Modisane, welcomed the OIE delegates, invited ministers, representatives from international organizations and other guests to the 84th General Session. Dr. Modisane stressed that the four pillars of the 6th Strategic Plan – solidarity, standards development, transparency, and scientific rigor – were being taken from concepts and principles into action and implementation.

Two international organizations (the World Farmer's Organization and the European Commission), Ministers of Agriculture and other high level officials from several of the Member countries (France, Bolivia, Botswana, Guinea, Ghana, Nepal, Namibia, Russia, China, Jordan, Pakistan, Panama, Kenya, Turkmenistan and Canada) were invited to attend the opening ceremonies and share some remarks.

Dr. Monique Eloit, Director General of the OIE, highlighted both the administrative and technical activities of the organization during the 2015 calendar year. She described her plans to implement the four core pillars of the 6th Strategic Plan. For the pillar on Standards and the pillar on Scientific Expertise, Dr. Eloit wants the OIE to develop clear and rigorous procedures for selecting candidates to serve both on the OIE Specialist Commissions and on the various technical ad hoc Groups that are convened. The OIE wants to establish a pool of experts that would include not only those available from existing Reference Centers, but also from universities and other institutions. For the pillar on Transparency, the OIE recognizes that it needs to provide better access to the available data in the World Animal Health Information System (WAHIS) system, and to better use (analyze) such data thus making it more useful. In addition, the OIE will seek to establish an e-learning platform to train focal points on-site on the effective and appropriate use of the WAHIS system. The OIE also plans to reconsider how the existing information on its web site and on its paper publications can be more accessible and useful. Finally, for the pillar on Solidarity, the OIE wants to optimize the use of existing technologies to enhance the role of the Regional Commissions, further develop the Performance of Veterinary Services (PVS) tool such that it can also be used by any Member country for self-evaluation, revisit its policies to improve equity of vaccines availability (FMD, PPR and rabies), and maximize and strengthen its relationship with the various (70+) international and regional organizations with which it has an agreement for mutual benefit.

Two technical items were presented at this year's General Session. The first Technical Item presented was:

1. *Economics of Animal Health: Direct and Indirect Costs of Animal Disease Outbreak.*  
(Presented by Dr. Jonathan Rushton)

This presentation was based on responses to an OIE questionnaire/survey sent out to all the Member country delegates. The results of the survey indicated an interest of Member countries to use economics in animal health, however, data is very sparse to conduct any meaningful analysis. The presenter concluded that this gap in data needs to be corrected so that good economic analysis can be done and provide greater value to animal health decision making. To correct this gap, he recommended that:

- Veterinary education, at all levels, include training on the use of economics in animal health and welfare;
- A pilot project be done to estimate the global burden of animal diseases;
- A pilot project be done to collect and summarize data on the costs of national veterinary services.

The Second Technical Item presented was:

2. *Combating Antimicrobial Resistance (AMR) through a One-Health Approach: Actions and OIE Strategy (Presented by Jean-Pierre Orand).*

The presenter noted the threat that AMR presents to both public and animal health, and stressed the need to address the concern through a One-Health approach – the responsible and prudent use of antibiotics requires a collaborative and concerted effort by both animal and human health authorities. Several recommendations were made by resolution including that the OIE continue working closely with the World Health Organization (WHO) and Food and Agriculture Organization (FAO) through a One-Health approach, the OIE provide guidance on alternatives to the use of antimicrobial agents, and the OIE continue to promote the responsible and prudent use of antimicrobial agents.

The Head of the OIE Animal Health Information Department presented the most significant animal health events occurring during 2015. The Web-based system for disease notification — or WAHIS — provides the platform for reporting animal disease events. All OIE animal health information reported by Member countries is available through the OIE database known as the WAHID (World Animal Health Information Database). The Head of the Department noted some trends on the following four terrestrial animal diseases:

- Lumpy skin disease (LSD) – the disease is spreading from southern parts of the world north towards Europe. It was observed that climate change may be a predictor of the spread of vector borne diseases such as LSD.
- Blue tongue virus (BTV) – 24% of the Member countries reported at least one serotype of BTV.
- Highly pathogenic avian influenza (HPAI) – 23% of Member countries reported at least one event of HPAI during 2015.

Dr. Clifford then indicated his role in APHIS-VS after he had stepped down as the APHIS Deputy Administer for VS. He maintained his role as the U.S. delegate to OIE and coordinates USDA activities with OIE as well as promoting U.S. agriculture international trade through enforcement of the trade rules.

### **Transboundary Risk of Disease Spread by Feed Ingredients- A Proposed Model**

Scott Dee, Pipestone Applied Research

Dr. Dee, Director of Pipestone Applied Research (PAR), a business unit which conducts collaborative research efforts with production companies across North America comprising approximately 1.5 million sows, presented a model to be used for assessing the risk of transboundary diseases through feed ingredients. This research project is conducted with a team of researchers from various institutions as presented with the following names: Gordon Spronk (Pipestone Applied Research, Pipestone Veterinary Services, Pipestone, MN), Eric Nelson (Diego Diel, Travis Clement), Aaron Singrey, Fernando Bauermann, Michele Mucciante, Jane Hennings (Animal Disease Research and Diagnostic Laboratory, Department of Veterinary and Biomedical Sciences, South Dakota State University, Brookings, SD), Cassandra Jones, Roger Cochrane (Department of Grain Science, Kansas State University, Manhattan, KS), and Gilbert Patterson (Department of Veterinary Public Health and Preventative Medicine, University of Minnesota, St. Paul, MN). The aims of this project are: 1) to model if foreign animal diseases could survive in feed ingredients shipped from Asia to the USA; 2) evaluate whether two potential chemical compound to be used for mitigation to reduce risk. The project is built on the Swine Health Information Center pathogen matrix, ten foreign animal diseases (FAD) viral pathogens were identified as significant risks to the U.S. swine industry. Due to the inability to work with these actual agents, we used “surrogate viruses”, which allowed us to study closely related and structurally similar viruses, but not the actual FAD pathogens. The designated FAD and the selected surrogate were as follows: food-and-mouth disease virus (FMDV), Seneca virus A, classical swine flu virus (CSFV), bovine virus diarrhea virus, pseudorabies virus (PRV), bovine herpesvirus-1, African swine flu virus (ASFV), vaccinia virus, Nipah virus, canine distemper virus, swine vesicular disease virus, porcine enterovirus, vesicular exanthema virus, and feline calici virus. Other selected pathogens (porcine reproductive and respiratory syndrome virus (PRRSV) 174, porcine circovirus type 2 (PCV2) and vesicular stomatitis virus

did not require surrogates. Using a model previously validated to study the risk of contaminated feed ingredients for the transboundary spread of porcine epidemic diarrhea virus (PEDV) (Dee et al. 2016), we selected feed ingredients known to be imported from China to the USA based on the U.S. Government Harmonized Tariff Schedule (hs.usitc.gov). These included organic and conventional soybean meal, soy oil cake, distiller's dried grains with solubles (DDGS), lysine, choline, vitamin D, pork sausage casings, and several pet foods (dry and moist). Ingredients were inoculated with representative surrogates (5g ingredient and 100 uL virus). Controls consisted of complete feed inoculated with surrogate or saline (negative control) as well as stock virus alone (positive control) in the absence of feed matrix. The design involved non-treated control ingredients, along with two mitigants: SalCURB-treated ingredients and MCFA-treated ingredients. These samples were then incubated in an environmental chamber for 37 days programmed using actual temperature and percent relative humidity recorded during a journey from China to the U.S. (Beijing to Shanghai to San Francisco to Des Moines) in December 2012 through January 2013 (SeaRates.com). Samples were tested by polymerase chain reaction (PCR), virus isolation (VI) and bioassay for porcine surrogates or on primary cells for surrogates of non-porcine origin at two days Post Inoculation (DPI) (Beijing), 8 DPI (Shanghai), 25 DPI (San Francisco) and 37 DPI (Des Moines) to represent specific points in the model.

Dr. Dee reported the progress from the initial stage of this project. Testing of the FMDV, CSFV and PRV surrogates has been completed. Preliminary data indicate the survival of the FMDV surrogate variable analysis (SVA) and the PRV surrogate (BHV-1) at all points during the 37 day shipping period from China and into the U.S. Both surrogates survived in conventional soybean meal and soy oil cake, while SVA also survived in lysine, pet food, Vit D, complete feed and casings. Both positive controls (SVA and BHV-1 stock virus) did not survive. In contrast, the CSFV surrogate (BVDV) appeared to be less stable and did not survive the 37-day journey, independent of ingredient. It did, however, survive until the samples theoretically entered the port of San Francisco (25 DPI) in conventional soybean meal and moist dog food.

Dr. Dee indicated that under the conditions of this study, these preliminary results suggest that contaminated feed could serve as vehicles for FAD introduction to the U.S., supporting our previous results which focused on PEDV. Phase 2 has begun, consisting of surrogates for ASFV, vesicular exanthema virus and Nipah Virus along with PRRSV.

#### **Reference:**

Dee S, et al. Modeling the transboundary risk of feed ingredients contaminated with porcine epidemic diarrhea virus BMC Vet Res, 2016, 12:51

### **FDA and APHIS Regulations Associated with the Import of Animal Feed, Ingredients, and Feed Containers**

Mike Murphy, Food and Drug Administration (FDA)

Dr. Murphy, presented the role of FDA and APHIS in regulating the animal feed and ingredients. Regulation of Animal Feed is mainly under the FDA role as part of the Federal Food Drug and Cosmetic Act (FFDCA). The FDA regulates feed under the adulteration and misbranding provisions of the FFDCA (Sec 402 and 403) --the feed is to be safe and properly labeled. FDA cooperates with the states individually, and via the Association of American Feed Control Officials (AAFCO). Now approximately seventy percent of FDA's feed inspections are performed by state agencies through contracts, partnerships and cooperative agreements. There are 4,962 feed mills not licensed by FDA (this number includes many ingredient manufacturers); 882 medicated feed mills licensed by FDA; 530 pet food manufacturers, 264 renderers, 209 salvagers, 996 human food processors (this number also includes some ingredient manufacturers). The American Feed Industry Association (AFIA) estimates 183 million tons total feed produced in the U.S. in 2015 (or roughly 7.3 million semi-truck loads of product).

Feed inspection work is done by FDA and state personnel. Currently about 350 FDA and 400 state personnel doing feed inspections for FDA. Few are full-time feed inspectors. State inspections, if done for FDA, usually done under FDA authority and process. Work is tracked by FDA. State feed control programs do a great deal of other work under their own authority, to meet their own objectives. Foreign Inspections for the feed program are only conducted in a small number of foreign inspections under our work plan. These foreign facilities may be inspected for cause.

### **APHIS Update on the risk assessment for the importation of fetal bovine serum:**

Adis Dijab, USDA-APHIS-VS

Dr. Dijab, presented the role of APHIS in the importation of various animal products. The Foreign Animal Diseases of NIES is concerned that affect trade due to the following diseases: bovine spongiform encephalopathy (BSE), Newcastle disease (ND), highly pathogenic avian influenza (HPAI), African horse sickness (AHS), foot-and-mouth disease (FMD), classical swine fever (CSF), swine vesicular disease (SVD), and African swine fever (ASF). The agencies involved are: USDA-APHIS-VS-NIES, U.S. Customs and Border Protection (CBP), U.S. Food and Drug Administration (FDA), U.S. Fish and Wildlife Service (FWS), USDAAPHIS Plant Protection and Quarantine (PPQ), and USDA Food Safety Inspection Service (FSIS). The USDA-APHIS-VS-NIES regulates importation of certain animal origin materials into the U.S. Authority taken from 9 CFR. The CBP Agricultural Specialists enforce APHIS-VS-NIES import regulations at ports of entry. In addition, documents are reviewed and inspected. Some animal products are not regulated; USDA-APHIS-VS-NIES does not regulate the animal feed containers. Commercial shipments require a valid VS Import Permit and associated foreign government zoo-sanitary certificate. Permit restrictions and associated zoo-sanitary certifications are based upon the material type (meals, offals, etc.), species of origin, and country of origin/processing. Vast majority of permits require the ingredients to be heat treated prior to importation to mitigate for diseases of concern.

Foreign facilities producing/handling rendered material (“meals”, digests, hydrolysates) require an annual inspection to demonstrate absence of comingling with prohibited material. The presentation can be found on the Committee page at [www.usaha.org](http://www.usaha.org).

Dr. Dijab showed some brief statistics on animal feed ingredient import permits:

- 260 commercial import permits for animal feed ingredients
- 25% of permits are for ingredients from Australia/New Zealand
  - this source is >80% of ruminant meal permits
- 33% of permits are for ingredients from Canada
  - Non-ruminant rendered material
  - Offals (non-rendered) of all species
- 15% of permits are for ingredients from South America
  - Mainly fish/shellfish meal
- 15% of permits are for ingredients from the E.U.
  - Fish/shellfish meal, avian, porcine ingredients
- 4 active permits for ingredients from China

### **The European Union’s Measures to Control African Swine Fever and the Spread of Lumpy Skin Disease**

Francisco Reviriego, European Commission

Dr. Reviriego presented a comprehensive detail of the current situation of African swine fever (ASF) and lumpy skin disease (LSD) including the most current history of these two diseases with introduction to the E.U. The presentation can be found on the Committee page at [www.usaha.org](http://www.usaha.org).

### **Global Health Security Agenda – Impacts on U.S. Livestock Health from APHIS perspective**

Joseph Anelli, USDA-APHIS-VS-SPRS

Dr. Anelli presented the outline of the global health security agenda (GHSA) and the role of APHIS and national animal health program in this initiative. The presentation can be found on the Committee page at [www.usaha.org](http://www.usaha.org).

### **Report on Global ASF Research Alliance Workshop in September 2016**

Luis Rodriguez, USDA-ARS

Dr. Rodriguez, reported on the most recent workshop of the Global African Swine Fever (ASF) Research Alliance that was conducted in September 2016. The presentation can be found on the Committee page at [www.usaha.org](http://www.usaha.org).

### **Economic Impact of Foreign Animal Diseases in North America:**

Stephanie Shwiff, USDA-APHIS, National Wildlife Research Center (NWRC)

Dr. Shwiff, presented an economic model to estimate the impact of foreign animal diseases in North America. The presentation can be found on the Committee page at [www.usaha.org](http://www.usaha.org).

### **Outcome of National Assembly FMD Vaccination Strategy Forum**

Susan Keller, North Dakota Board of Animal Health

Dr. Keller summarized the outcome from the discussion at the National Assembly (NA) on the availability of foot-and-mouth disease (FMD) vaccine for the USA in case an outbreak is reported. The message was clear that there is a full agreement among the State Veterinarians for building reliable and practical FMD control strategy if the virus is introduced to the USA. The strategy should include sufficient vaccine bank with the ability to apply the vaccine in effective way.

**Committee Business:**

Two resolutions were presented for approval by the committee members. The first resolution is related to the importation of cervids from Manitoba, Canada. The second resolution is to endorse the increased funding in the 2017 federal budget for USDA to support an optimized foot-and-mouth disease (FMD) vaccination bank. Both resolutions were passed without any negative vote. The two resolutions can be found in the Committee on Nominations and Resolution report.

The committee approved the adaption of a new name for this joint committee to reflect the mission below. The new name is Global Animal Health and Trade (GAHT). The modified mission was discussed by the committee members through email messages during the last few months is *“The purpose of this committee is to contribute to both the USAHA and AAVLD in international trade and its link to the health aspects of livestock and their production by: educating and creating an awareness among the membership of these organizations on key global, animal health and trade issues; proactively identifying critical issues in the international arena; enhancing the organization’s understanding, response, and decision-making ability in these areas; and, enabling both organizations to more effectively use this information to improve their strategies, operation, and, ultimately, improve global animal health and security. The ultimate goal from these activities is to foster dialogue and cooperation with and between members of the private sector of the livestock industries, U.S., and state government regulatory officials, and the scientific community, on the problems and opportunities in the global trade of livestock and their products.”*

The meeting was adjourned at 5:45 p.m.