

REPORT OF THE COMMITTEE ON ENVIRONMENT

Chair: Gary Osweiler, IA
Vice Chair: Randall Lovell, MD

Frank D. Galey, WY; L. Wayne Godwin, FL; John P. Honstead, CO; Laurent O'Gene Lollis, FL; David L. Meeker, VA; Gavin Meerdink, IL; Lee M. Myers, GA; Elizabeth J. Parker, DC; Jane F. Robens, MD; Gary M. Weber, MD

David Ailor, National Oilseed Processors Association; Catherine Barr, Texas Veterinary Medical Diagnostic Laboratory; Karyn Bischoff, Cornell Animal Health Diagnostic Center; Tim Evans, University of Missouri; Michelle Frantzen, Texas Veterinary Medical Diagnostic Laboratory; Frank Galey*, University of Wyoming; Tam Garland, Texas Veterinary Medical Diagnostic Laboratory; Ramesh Gupta, Murray State University; Dwayne Hamar, Colorado State University; William Hare, USDA/ARS; Brent Hoff, University of Guelph; Steve Hooser, Purdue University; Paula Imerman, Iowa State University; Travis Mays, Texas Veterinary Medical Diagnostic Laboratory; David Meeker*, National Renderers Association & USAHA Executive Committee; Chris Melluso, FDA/CVM; Michelle Mostrom, North Dakota State University; Khushi Muhammad, UVAS in Pakistan; Motoko Mukai, California Animal Health and Food Safety; Eileen Ostlund, USDA/APHIS/NVSL; Bob Poppenga, California Animal Health and Food Safety; John Rathje, Iowa State University; Stephen Rutta, University of Wisconsin; Nick Shrier, University of Guelph; Lori Smith, University of Kentucky; Patricia Talcott, Washington State University; Kerry Thompson, American Horse Council; Larry Thompson*, Nestle Purina; Elizabeth Tor, California Animal Health and Food Safety; Ken Toren, Vertig Inc.; Josie Traub-Dargatz, Colorado State University;

*USAHA Committee members

The Committee met jointly with the AAVLD Veterinary Analytical Toxicology and Mycotoxin Committee on Saturday, October 10, 2009 at 3:30 p.m., at the Town & Country Hotel, San Diego, California. Dr. Jeff Hall opened the meeting at 3:30 p.m. and handed out the 1-page agenda with 11 items.

Dr. Gary Osweiler introduced Dr. Tom Holt, the State Veterinarian in Florida. Dr. Holt provided an overview on the selenium poisoning of 21 polo ponies in Florida. Many of these polo ponies started showing clinical signs within 2 hours after being administered an intravenous dose of a vitamin mineral supplement. All 21 horses died within about 24 hours of the dose despite heroic efforts by many veterinarians and veterinary assistants. It appears that an error was made by a compounding company in making this vitamin mineral supplement. Selenium levels in tissues were markedly elevated and this was the only significant toxicology finding.

Dr. Randall Lovell then spoke on "Selected Environmental and Residue Topics." Dr. Lovell discussed the FDA's Feed Contaminants Program and provided websites for additional information about this program and for the specific components of this program (pesticides, industrial chemicals, elements, mycotoxins, dioxins, and microbes). Dr. Lovell will electronically send his presentation to all attendees at the meeting.

Attendees then discussed significant mycotoxin findings during the past year. In the US, there were reports of ergot bodies and elevated levels of ergot alkaloids in barley and rye (especially in screenings) in several states. There were also reports of elevated levels of vomitoxin in wheat in several states due to the cool, wet spring. Also reported were isolated incidences of corn silage with elevated vomitoxin and zearalenone levels, of pasture forage with elevated levels of T2, HT2 and acetyl T2 toxins, and of dry land corn with elevated aflatoxin levels. In Pakistan, there have been reports of elevated levels of ochratoxin-A in grains fed to poultry due to unusual amounts of rain during the dry season.

Dr. Hall led a group discussion on how the two committees could make better use of all toxicology cases that were handled by the various labs during the year. Dr. Hall indicated that a written summary of all toxicology cases could conceivably be submitted to JVDI for publication and could provide benefits for each lab and for AAVLD and USAHA. Drs. Hoff and Schrier indicated the University of Guelph already

provide a written summary of their toxicology cases each fiscal year and believed this was a useful activity. Dr. Osweiler indicated that a prior FDA sanctioned study of food animal poisoning had been reported at the 2008 AAVLD meeting, and this could be provided as a template for future annual reporting, pending acceptance of the format by the joint committee to be formed. Following discussion, Drs. Osweiler and Hall indicated they were going to form a committee to outline the information needed in these written reports (e.g. number of animals, analytical results [both positive and negative], and disposition of problem, etc). Dr. Hall's goal is to send out a draft document for comment on TOX NET by January 1, 2010. The attendees asked the committee to try and obtain input from a wide group as there could be benefits from capturing data from states not present at the meeting and from interactions with state veterinarians and directors of diagnostic labs.

Dr. Hall led a discussion on the differences between states on the reportability of toxins involving food animals. Dr. Hall has received samples with elevated levels of the same toxin from 2 different states. In one state, toxins involving food animals are reportable to the state veterinarian, while in the other they are not. The AAVLD SOP on Confidentiality indicates he would need owner consent to report this toxin in the other state. When the owner indicated she/he did not want the results released to a third party, Dr. Hall was placed in the position of maintaining client confidentiality or possibly getting sued for releasing information that potentially has public health significance. Following discussion, the attendees indicated they would like this issue to be brought up for discussion by the USAHA Executive Committee or the appropriate committee recommended by the USAHA Executive Committee and the AAVLD Executive Committee. .

The next discussion topic was proficiency testing. Dr. Evans provided his thoughts on the top 13 toxicants and the preferred sample to test in a toxicology proficiency test. They were as follows:

- 1) Lead in tissue and/or blood
- 2) Aflatoxins in feed
- 3) Arsenic in tissue
- 4) Ionophores in feed
- 5) Copper in liver
- 6) Nitrate in ocular fluid and/or feed
- 7) Pesticides in rumen contents
- 8) Selenium in tissues and/or blood
- 9) Anticoagulants in liver
- 10) DON (vomitoxin) in feed
- 11) Cyanide in forage and/or rumen contents
- 12) Zinc in serum
- 13) Cholinesterase in brain/serum

Following extensive discussion and the distribution of the AAVLD Assay Validation Requirements, the attendees asked that the labs send their current testing capabilities and contact information to Dr. Catherine Barr [acbarr@tvmidl.tamu.edu]. In addition, the labs should send Dr. Barr a list of the ten toxicants they test the most each year including the matrices tested and the amount of sample needed. The attendees also approved a 3-person committee (Drs. Nick Shrier, Dr. Jeff Hall, and Dr. Gary Osweiler) be set up to decide the most appropriate toxicant(s) and sample(s) to be used in the next round of the proficiency test. This decision should be made after the committee receives a report from Dr. Barr.

Dr. Hall then read the mission statement for the USAHA Committee on Environment and this mission statement included residues and residue prevention. Dr. Hall indicated that if there is a formal union of the AAVLD Veterinary Analytical Toxicology and Mycotoxin Committee and the USAHA Committee on Environment that a combined name and new mission statement will need to be addressed. Dr. Barr then moved and Dr. Galey seconded a motion to officially merge these two committees. There was a unanimous vote in favor of this union by the 21 members present.

The attendees indicated that the USAHA and AAVLD executive committees would likely set up a subcommittee to try and resolve the primary issues involved in joining these two committees before rendering a final decision on this proposed union. Dr. Barr then moved and Dr. Mostrom seconded a

motion that the following 4 people be recommended to the executive committees of the USAHA and AAVLD for this subcommittee – from AAVLD, Dr. Steve Hooser and Dr. Brent Hoff and from USAHA, Dr. Larry Thompson and Dr. Gary Osweiler. There was a unanimous vote in favor of these 4 suggested members of the subcommittee by the 21 members present.

There was a motion to adjourn and it passed unanimously at 6:31 p.m.