USAHA/AAVLD COMMITTEE ON ENVIRONMENT AND TOXICOLOGY

Chair: Tim Evans, MO

Cat Barr, TX; Adrienne Bautista, CA; Karyn Bischoff, NY; David Borts, IA; John Buchweitz, MI; Xiangwei Du; Steven Ensley, IA; Tim Evans, MO; Michael Filigenzi, Kyle Francis, KY; Francis Galey, WY; Tam Garland, TX; Cynthia Gaskill, KY; Ramesh Gupta, KY; Jeffery Hall, UT; Dwayne Hamar, CO; Brent Hoff, ON; Stephen Hooser, IN; Paula Imerman, IA; Sandra James-Yi, IL; Joseph Johnson, KY; Joe Kendall, AB; Patrice Klein, DC; Gene Lollis, FL; Randall Lovell, MD; Geraldine Magnin-Bissel, VA; David Meeker, VA; Mary Mengel, IN; Michelle Mostrom, ND; Lisa Murphy, PA; Gene Niles, CO; Eileen Ostlund, IA; Stephanie Ostrowski, AL; Robert Poppenga, CA; Renate Reimschuessel, MD; Wilson Rumbeiha, IA; Nick Schrier, ON; Lori Smith, KY; Patricia Talcott, WA; Larry Thompson, MO; Deon Van der Merwe, KS; Daljit Vodathala, PA; Christina Wilson, IN.

The Committee met on October 16, 2016 at the Sheraton Greensboro Hotel in Greensboro, North Carolina beginning at 3:40 p.m. There were 17 members and 14 guests present.

Presentations and Reports

Subcommittee on Mycotoxins in Pet Food: Recommended Dietary Guidance Concentrations
Larry J. Thompson, Nestle Purina

In the 2015 meeting, Renate Reimschuessel of the Food and Drug Administration (FDA), Center for Veterinary Medicine (CVM) requested the Committee:

1. Delineate working ranges for development of quick mycotoxin test kits for pet food for the following mycotoxins: T-2/HT-2, Ochratoxin-A (OTA), and Zearalenone (ZEA).
2. Develop and recommend guidance concentration limits in dry kibbled pet food diets for the following mycotoxins: T-2/HT-2, Ochratoxin-A (OTA), and Zearalenone.

A subcommittee meeting was held at Iowa State University on March 17 and 18, 2016 to discuss this topic. Attendees included: Larry Thompson, Michelle Mostrom, Tim Evans, Steve Ensley (host), Cat Barr, Cindy Gaskill, Karyn Bischoff, Deon van der Merwe, Paula Imerman, and Gary Osweiler. The subcommittee approach was to review related literature and regulations on these mycotoxins, review the risk assessment approach and assumptions (e.g., uncertainty factors), including comparisons with other animals (e.g., pig) and standard intakes for dogs and cats. The subcommittee also chose to review real world cases and suspected cases in order to develop ranges of likely concern for these mycotoxins as well as to develop final dietary concentration recommendations. Significant challenges to this approach included that no risk assessment guidance has been put forth by FDA-CVM, including use of uncertainty factors as well as direction on standard intakes used for risk assessment calculations. The subcommittee noted that the final levels used may change due to differing approaches utilizing differing assumptions in these and other areas. At end of March 2016, the subcommittee forwarded to FDA-CVM the generated final working ranges suggested for development of a quick screening method for these mycotoxins in dry pet food products:

Mycotoxin	Suggested Range
T-2+HT-2	10-250 ppb
OTA	5-50 ppb
ZEA	50-500 ppb

At the 2016 meeting, the Subcommittee held final discussions and forwarded to Dr. Reimschuessel the following suggested limit guidelines for the mycotoxin in dry pet food, on a dry matter basis:

Mycotoxin	Recommendation
T-2 plus HT-2	Dog 250 ppb
	Cat 50 ppb
Ochratoxin A	10 ppb
Zearalenone	200 ppb

The Committee was updated on the status of the radionuclide review in production and other animals by Lisa Murphy. She is collaborating with Steve Hooser in the review and update.

Karyn Bischoff motioned the Committee, seconded by Michael Filigenze, to endorse the following: statement on environmental lead residues, to be used by the American Veterinary Medical Association's (AVMA) Committee on Environmental Issues:

"Lead - The AVMA recognizes that lead in the environment is a health risk to people, pets, livestock, and wildlife. The AVMA encourages research, education, and actions to mitigate the risk by elimination of lead exposure and continued development and use of alternative products."

After discussion, the Committee voted to support the statement along with comments on suggested minor changes to the statement concerning the actual feasibility of *elimination* (underlined above) versus *a mitigation or reduction in lead exposure*, which the Committee's felt would more accurately support the ideas presented in the statement.

Sarah Nemser of FDA-CVM's Veterinary Laboratory Investigation and Response Network (VET-LIRN) thanked the Committee on its support of the program and updated the Committee on activities, including a planned proficiency testing for anticoagulant rodenticides in liver. Planning is ongoing and participating laboratories will be contacted with further information when available. Lori Smith inquired as to a proficiency testing for nitrate in forage, as Kentucky has access to differing known levels of nitrate in forage. The Committee agreed to pursue this in conjunction with the American Academy of Veterinary and Comparative Toxicology (AAVCT) and a phone conference in early 2017 was planned for further arrangements.

Wilson Rumbeiha, who is the Toxicology Section Editor for Journal of Veterinary Diagnostic Investigation (JVDI) discussed the continuing need for expert toxicology reviewers for the journal. He reminded the Committee that an email to him or the Editor, Grant Maxie, stating the member's expert area and that the member would be willing to act as reviewer, was all that was needed to get on the database.

In response to a question from the Chair, a guest from the FDA-CVM Office of the Director, Michael Murphy, updated the Committee on continuing changes and initiatives in the area of compounding drugs, including antidotes used to treat toxicoses in food animals and other animal species.

The Committee adjourned at 5:50 p.m.