

## **Report on the US Animal Health Association 2009 Annual Meeting**

Compiled by Karen Conyngham, ILR representative to the USAHA Board of Directors and Susan Tellez, Camelid Alliance.

The 113<sup>th</sup> annual meeting of the US Animal Health Association was held in San Diego, CA October 8-14, 2009. Camelid owners who attended this year included Susan Tellez representing the Camelid Alliance, Karen Conyngham, representing the Intl. Lama Registry on the USAHA Board of Directors and Dr. Pat Long, representing the Alpaca Owners & Breeders Assoc. on the USAHA Board of Directors.

This was the first year that Dr. Long has represented AOBA. He will be familiar to many of you as he serves on the boards of the Alpaca Research Foundation, the Morris Animal Foundation, the Willamette Valley Llama Foundation and he is a member of the Assoc. of Small Ruminant Practitioners. Pat is a practicing veterinarian in Corvallis, Oregon. Llamas and alpacas comprise more than half of his practice which was established in 1982. He has spoken at many national and international meetings on llama and alpaca care. Pat is co-author of the Llama and Alpaca Neonatal Care book and he has written many articles for Alpacas Magazine and has participated in several importation screenings for ARI. Dr Long's areas of interest are herd health management, nutrition, and reproduction. It is wonderful to have a practicing camelid veterinarian joining Dr. Paul Jones Oregon as a member of USAHA and an active participant and presenter at this year's meeting!

USAHA is an international forum where producers join state and federal regulators and researchers/scientists from a wide variety of specialties to discuss issues affecting the health and welfare of livestock species and wildlife. The annual meeting gives the camelid representatives a chance to talk with state veterinarians, US Dept. of Agriculture, Animal Plant & Health Inspection Service (USDA/APHIS) personnel and researchers about issues of concern to the camelid community.

USAHA is comprised of 31 species- and subject-oriented committees, all of which hold sessions during the annual meeting. This year, committee meetings attended by camelid representatives included: Animal Welfare, Bluetongue and Related Orbiviruses, Import/Export, Infectious Diseases of Cattle, Bison and Camelids, International Standards, Livestock Identification, Committee on Foreign and Emerging Diseases, Committee on Tuberculosis and the Committee on Diagnostic Laboratory & Veterinary Workforce Development. The following report covers committees in which camelids or diseases of interest to camelid owners were mentioned.

### **Scientific Session**

The topic of the Scientific Session this year was Emerging Vector-Borne Diseases: What's the Risk? Presentations covered the impact of climate change on vectors and emerging diseases. This was relevant to llamas and alpacas since a small number of cases of Eastern Equine Encephalitis (EEE) were detected again this year in camelids in several states on the east coast. For the first time the disease spread across Maine and into Nova Scotia. Maine reported one llama was confirmed positive for EEE on October 9, 2009. The presenter of this paper mentioned that whether we are seeing true global climate change or a more prolonged change in local weather patterns, the resulting emergence of diseases in new areas of the country is a concern for everyone.

Other presenters covered the continuing spread of bluetongue in Europe and the emergence of new strains of bluetongue in the U.S. BTV-2 has been found in Florida and Alabama, BTV-12 has been found in NE Texas. These new strains and new diseases place a burden on our diagnostic laboratories so having global lab networks for fast exchange of disease/vector information is vital for both human and animal health. U.S. labs are well prepared for diseases such as foot-and-mouth and classical swine fever, but are not ready for new bluetongue strains or for Rift Valley Fever (RVF). RVF is listed as the 3<sup>rd</sup> on the list of diseases of concern to USDA/APHIS and it is hosted by the same species of mosquitoes that carry West Nile Virus. We know from RVF outbreaks in east Africa that camels are susceptible to this disease. Humans are also susceptible.

The Power Point presentations that were given at the Scientific Session are available .pdf format on the USAHA web site:

<http://www.usaha.org/meetings/2009/2009Presentations.shtml>

An interesting article on this subject was published in the October 2009 issue of the online journal ARS Healthy Animals Newsletter entitled "Predicting Changes for Parasite- and Vector-Induced Animal Diseases". The full text is available at: <http://www.ars.usda.gov/is/np/ha/han39.htm>

### **Committee on Infectious Diseases of Cattle, Bison and Camelids**

Ms. Lisa A. Shimeld, MS, Crafton Hills College, Alpacas del Valle Cereza, reported on a serological survey of alpacas living or breeding in Southern California. She gave a short history of the introduction, uses, population and history of BVDV in alpacas in the US. Serum neutralization testing was used to detect seropositive animals in her study. The purpose of the study was to identify seropositive alpacas from 21 ranches in Southern California, identify seropositive alpacas from facilities outside Southern California that were breeding in Southern California (11 additional facilities), and determine the BVDV seroprevalence of alpacas in Southern California. Ms. Shimeld discussed the transmission of BVDV in alpacas and the means by which alpacas could become exposed/infected. She commented on the absence of information indicating that transmission of BVDV in alpacas was different than transmission in cattle.

Four hundred twenty nine alpacas living in Southern California, or present in Southern California to breed, were included in this study, the majority being located in either Riverside (288) or Los Angeles (88) county. Herd size ranged from four to 280 alpacas. All alpacas appeared clinically normal at the time of sampling. The samples were shipped to the California Animal Health & Food Safety Laboratory System in Davis, California for serum neutralization testing for BVDV. The use of BVDV vaccines was not reported in any of the alpacas in this study. Serum virus neutralization (SN) was performed to measure the titer of circulating antibody to BVDV type 1 and to BVDV type 2, using NADL and c125 BVDV as reference strains, respectively. Results were reported as the endpoint serum dilution that demonstrated no observed cytopathic effect in the assay. Fifteen of the alpacas seropositive to BVDV type 1 were seronegative to BVDV type 2. BVDV type 1 titers ranged from 1:8 to >1:8192 and BVDV type 2 titers were between 1:8 and 1:2048. Three PI (persistently infected) alpaca crias were identified and were born on different ranches participating in this study.

Discussion and Conclusions from this study were:

- 1) This study was designed to determine the prevalence of alpacas seropositive to BVDV in Southern California.
- 2) The results of the current study suggest that alpacas seroconvert when exposed to BVDV but clinical disease is unusual
- 3) 20.0% of the alpacas SN tested in this study were seropositive for one or both BVDV genotypes
  - a. 18.6% of males tested were seropositive to one or both BVDV genotypes
  - b. 20.6% of females tested were seropositive to one or both BVDV genotypes

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Dr. Pat Long, DVM, of Camelid Healthcare Services, Corvallis, Oregon gave a report on problems of camelids that included infectious disease, contagious disease, and management related issues. Dr. Long commented that most alpaca farms are single species facilities and therefore have very little likelihood of exposure to diseases from other species. However the alpaca show circuit may bring over 1500 animals together at a single event.

Dr. Long reported that bluetongue vaccine trials have been completed in alpacas in England (Bovilis BTv8-Intervet) and vaccination has been shown to produce antibodies after 2 doses of the vaccine. Regarding EEE, a vaccine study has been completed - no adverse effects were reported and antibody response has been demonstrated, but no challenge studies have been done. (see the ICI web site home page for more information on EEE in camelids in 2009: <http://www.icinfo.org>). West Nile virus is being reported in decreasing numbers in camelids over the past few years.

Dr. Long discussed a neonatal diarrhea complex and respiratory disease (aka “snots”) associated with a novel corona virus that appears to be related to exposure of animals at shows. Corona virus studies are being conducted at U.C. Davis and Oregon State University. A study by Dr. Crossley at Davis – “Characterization and Id of Novel Coronavirus” - should be completed soon. The Oregon State study - “Investigating the infectivity of Camelid Coronavirus and Bovine Coronavirus in Camelids” – will be looking at the length of time the virus is in the animal, shedding duration and viral characteristics in the environment.

He also reported on an emerging problem with the parasite *Eimeria macusaniensis* (*E. mac*). This large coccidia has increased pathogenicity and a long prepatent period as well as not being readily detected by common fecal flotation procedures. Dr. Chris Cebra of Oregon State Univ. is working on development of both an ELISA and PCR test to be used for detection of *E. mac*. Both giardia and cryptosporidia affect camelids and have a zoonotic potential for animal care givers. We are seeing gastrointestinal nematode parasites that are developing resistance to anthelmintics. This may be due in part to strict meningeal worm protocols used in areas of the country affected by *P. tenuis* and to overuse/misuse of de-wormers in general.

BVD is a disease for which owners are becoming less vigilant and it has the potential to become a much bigger problem. Owners are urged to continue surveillance for BVD in order to eradicate this disease. The current Equine Herpes Virus (EHV-1) situation in horses could pose a problem for camelids.

*Mycoplasma haemolamae*, formally called Eperythrozoonosis, has incidence reports of approximately 20% of the animals tested in Switzerland, the US and S. America. For the US and South America, this is probably a secondary concurrent problem. The anemia can be striking. PCR is the best means to diagnose this disease, and current research is being funded by the Morris Animal Foundation and the Alpaca Research Foundation.

*Streptococcus zooepidemicus*, also known as “alpaca fever”, has been reported sporadically. Symptoms include fever, depression, and anorexia; systemic infection can involve the lungs, and serosal surfaces of the thoracic and abdominal cavities.

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Dr. Bob Hillman, Executive Director, Texas Animal Health Commission, gave a report on hemoparasitic diseases related to the livestock/wildlife interface. Cattle Tick Fever is caused by *Babesia bovis* or *Babesia bigemina* and the vector is the *Boophilus microplus* and *B. annulatus* tick. These tick species were eliminated from the U.S. by an eradication program that began in 1906 and ended with eradication of the vector ticks in 1943. Following eradication, a permanent tick quarantine zone was established along the Rio Grande river in Southern Texas. This was intended to be a buffer zone to mitigate the risk posed by the continuing presence of the boophilus ticks in Mexico. The large number of wild ungulates which are capable of hosting the tick and the lack of the preferred host (cattle) have resulted in the spread of boophilus ticks in several counties in south Texas since 2006. 145 new tick infestations were reported in Texas in the federal fiscal year 2009. Reports indicate that up to 50% of cattle imported from Mexico may carry the disease-causing agent and there is a serious risk for re-establishment of Cattle Tick Fever in the U.S. if the organism and vector tick meet.

This issue affects camelid owners since it appears that llamas can be a host for the boophilus tick and it is likely alpacas could also be a host.

[Reference: “Experimental infestation of llamas (*Lama glama*) with *Boophilus microplus* (Acari: Ixodidae)”  
D.H. Aguirre, M.M. Cafrune and A.A. Guglielmone  
Journal Experimental and Applied Acarology, Vol. 24, Number 8 / August, 2000; pgs 661-664]

### **Committee on Livestock Identification**

While no mention was made of llamas or alpacas in this committee, a brief update on the current status of the National Animal Identification System (NAIS) was provided by Dr. John Clifford. The appropriations bill for the Dept. of Agriculture was compiled by a Congressional conference committee in early October. The

House of Representatives stripped all funding for NAIS from their agriculture appropriations bill while the Senate cut the program's funding request from the \$14.6 million originally asked for by the President down to \$7.3 million. The final bill that was sent to the President for signature contained only \$5.3 million for NAIS. Dr. Clifford said that there will still be enough funds in the NAIS program to cover existing state cooperative agreements through this fiscal year. The Secretary of Agriculture, Tom Vilsack, is still reviewing the NAIS and no decision has been made as to the future of this program.

### **Committee on Diagnostic Laboratory & Veterinary Workforce Development**

The focus of this committee was on the bills regarding veterinary medicine that have been introduced in Congress this session.

S. 1709 and its companion, H.R. 3519, authorizes grants to bolster veterinary services and relieve veterinarian shortage situations in key parts of the country. This grant program will be administered by USDA will be used to recruit and retain practicing veterinarians and vet technicians; increase knowledge in large animal medicine, conduct assessments that will be needed to designate veterinary shortage areas and to provide continuing education opportunities to veterinarians and vet technicians. For more details on these bills see:

[http://www.avma.org/advocacy/federal/legislative/issue\\_briefs/veterinarian\\_services\\_investment\\_act.asp](http://www.avma.org/advocacy/federal/legislative/issue_briefs/veterinarian_services_investment_act.asp)

It would be very helpful for all llama and alpaca owners to contact their members of Congress (House and Senate) and ask them to sign on as cosponsors for these two bills (H.R. 3519 and S. 1709). Your letter can be short – just briefly describe the bill, ask for their support of the bill and explain the importance of large animal veterinarians to llama and alpaca owners in the US and to the overall security of the agricultural sector. If you would like a basic template letter that you can customize, just email Karen (72040.3361@compuserve.com).

To find out if your representative or senator has already cosponsored either of these bills, go to:

<http://thomas.loc.gov>

and enter the bill number in the "search" box, then click on "search by bill number" (right below the search box) on the Thomas home page. That will take you to all the information on the bill – text, list of cosponsors, committee to which the bill has been assigned and the date of the latest movement on the bill.

If you are not sure who represents you in the House of Representatives, just go to: <http://www.house.gov/> and enter your zip code in the box in the upper left corner of the home page. To find your senators, go to: <http://www.senate.gov/> and click on the pull-down menu in the upper right corner of the home page. The easiest way to contact any member of Congress is via email or fax. Both of the above web sites will lead you to the full contact information for your member of Congress.

### **Committee on Import/Export - Compiled by Susan Tellez, Camelid Alliance**

Dr. Peter Merrill, Director of NCIE (USDA\APHIS - National Center for Import Export) presented the data on all imports and exports for live animals and animal products, with the results that only fish (by far the highest) and poultry showed an increase in numbers over past 2 years, all other species basically showing an approximate 30% decrease for over-all imports and exports.

No camelid imports occurred except from Canadian border transport during 2009.

A Final Rule for Import from Canada for domestic or New World Camelids and specific Farm-raised Old World Camelids (not from Zoos), in the family of Camelidae, genus Lama or Vicugna, was posted on the USDA\APHIS web site September 18, 2009, with complete documentation, inspections, testing and transport requirements all listed in the Code of Federal Regulations (CFR) Section 93.403(b).

See: [http://www.aphis.usda.gov/import\\_export/animals/downloads/pro\\_domestic\\_camelids\\_canada.pdf](http://www.aphis.usda.gov/import_export/animals/downloads/pro_domestic_camelids_canada.pdf)

Dr. Merrill stated that the NCIE Regulations will follow the new guidelines for world alignment, presented by the O.I.E. (World Organization for Animal Health) for safe trade of live animals and animal products.

FMD (Foot and Mouth Disease), RVF (Rift Valley Fever), African Horse Sickness, and BTV (Bluetongue Virus) still affect the status for regionalization for the minimal risk regions of the world. The O.I.E. and NCIE determines if there is negligible risk, controlled risk, or unnamed risk for exporting areas of the world. Import categories are listed as Prohibited, With Restrictions, or No Regulations when determined to be safe. Import of live ruminants from countries with these diseases is still prohibited.

Export of all live ruminants to Europe is still prohibited by the European Union, even though the O.I.E. has classified the US as a country of negligible or controlled risk, due to the disparity between the serotypes of bluetongue present in the US and those which exploded in Europe and the U.K. in the past 2 years. Vaccination in Europe has controlled new bluetongue outbreaks. The BSE issue is still a concern on record for some countries there.

The emphasis of all speakers was on biosecurity and its high priority for owners of ALL livestock, birds, poultry or their products for the control of all diseases. This must become a standard of excellence for movement of stock from premises to premises, domestic or international.

The Committee on Import/Export passed a resolution that the USAHA urge the Animal Plant Health Inspection Service (APHIS) and Veterinary Services (VS) to initiate all trade negotiations with reference to compliance with the newest OIE Guidelines and SPS rules for trade, in order to make international trade safe but less restrictive in unnecessary regulatory testing issues in place in some countries.

#### **Committee on Bluetongue and Related Orbiviruses** - Compiled by Susan Tellez, Camelid Alliance

The impact of the BTV explosion of serotypes 1,8, 4, and 16 in the European Union, U.K. and northern areas of the African continent continued to be a focus with explanation of the patterns of outbreaks, the lack of control, except through vaccination, and their efforts to establish monitoring programs. All ruminants, including camelids, have been affected. All movement of live ruminants between individual European countries, as well as other continents, continues to be prohibited, therefore restricting activity and creating major economic stress.

The US has more than 18 bluetongue serotypes, with two new ones – 9 and 12 – being identified just this year at the National Veterinary Services Lab (NVSL) in Ames Iowa. None of these coincide with those found in Europe.

The BTV Symposium held in 2008 was focused on how to manage an emergency in the US of the type experienced in Europe. All livestock owners need to be aware of the arthropod organisms (mosquitoes) which carry Bluetongue (BTV), Equine Infectious Encephalomyelitis (EEE), West Nile Virus (WNV) and Epizootic Hemorrhagic Disease (EHD). Camelids may be affected by these organisms.

Wildlife may be a common transporter of these arthropod-borne diseases, which are showing presence in numerous new locations with monitoring by cooperative efforts of the Wildlife Disease Research Lab and the Arthropod-borne Disease Laboratory, along with NVSL, both of which are following the newest guidelines in the O.I.E. Manual update in the "Terrestrial Animal Health Code of Standards".

Biosecurity of premises and vigilant transportation and movement methods were also emphasized by a number of speakers, both foreign and domestic.

The 2010 USAHA Annual Meeting will be held at the Minneapolis Hilton Hotel in Minneapolis, MN November 11-17, 2010.