OKLAHOMA STATE UNIVERSITY CENTER FOR VETERINARY HEALTH SCIENCES – OKLAHOMA ANIMAL DISEASE DIAGNOSTIC LABORATORY Fall 2015 • Volume 6 Fall 2015 • Volume 6

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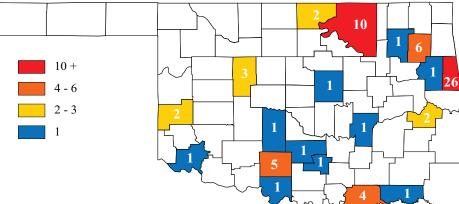


Tritrichomonas foetus (Trich) PCR testing at OADDL in 2015

Trichomoniasis continues to have an economic impact on cattle producers nationwide. Identifying and removing positive bulls is key to improving cow/calf yields. OADDL has tested 7,804 Oklahoma bulls for *Tritrichomonas foetus* from January 1 through November 1, 2015. The map below indicates the number of positive animals identified by county during that same time period. For your convenience, OADDL offers individual or pooled PCR options, see our website for details Visit Oklahoma Cooperative Extension Service VTMD-9134 for testing requirements and information on identifying and preventing the spread of trichomoniasis. Proper sampling technique is important to prevent injury to the bull and provide proper sample(s) for testing. Veterinarians must be certified to collect samples for trich testing, contact the Oklahoma Department of Agriculture, Food and Forestry for information on certification.

for details.

Positive Tritrichomonas foetus cases in 2015





Thoracic vertebrae from a 5-year-old cow with bacterial osteomyelitis and paravertebral abscessation. The cow presented to OADDL with a 2-day history of being non-ambulatory in hindlimbs. Clinical signs were attributed to impingement and involvement of the spinal cord (arrow). *Fusobacterium necrophorum* was isolated on anaerobic culture; no aerobic bacteria were recovered.

CENTER FOR VETERINARY HEALTH SCIENCES Healthy Animals — Healthy People

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International Visitors

OADDL encourages collaborative partnerships with scientists and veterinarians from all over the US and from around the world. In this issue we highlight two recent visits to OADDL by international Scientists.

Dr. Virginia Venturina, Professor and Chair of Pathobiology department, Central Luzon State University, Philippines visited OADDL in early August. Dr. Venturina is the Project Leader for the Development of Diagnostic and Management Protocols for Intramammary Infections in Goats, National Dairy Goat S & T Program of the Philippines. At OADDL, Dr. Venturina received training in advanced diagnostic methods, which can be implemented in the Philippines, for detecting mastitis pathogens. We wish Dr. Venturina all the best in setting up the new diagnostic laboratory and look forward to collaborating on future projects. Dr. Venturina's visit was organized by Dr. Roger Merkel,

Director's Note

In this edition of e-News we are rolling out a new feature that we plan to utilize in future issues. Specifically, we want to highlight diseases of veterinary significance and their distribution in Oklahoma based on testing at OADDL. Bovine trichomoniasis was selected as the first disease since we are quickly approaching time to test bulls prior to breeding season. As you will see in the map, we continue to diagnose cases of this significant reproductive disease in Oklahoma cattle. Additional information on bovine trichomoniasis can be found at the Oklahoma Cooperative Extension website (http://osufacts. okstate.edu).

We also honor the distinguished career of Dr. Eileen Johnson, who retired from OSU in early September.



Veterinarians from Azerbaijan shown with Assistant Director/ Quality Manager Emily Cooper (center).

Langston University, OK.

In mid-August, OADDL hosted Directors of multiple State veterinary diagnostic laboratories from Azerbaijan as part of the U.S. State Department International Visitor



OADDL Director, Dr. Keith Bailey with Dr. Virginia Venturina.

Leadership Program. The visit was organized by Tulsa Global Alliance (TGA), a nonprofit organization that bridges cultures and links people and institutions worldwide.

- Dr. A. Ramachandran

Dr. Yoko Nagamori has been selected as our next Clinical Parasitologist and will have huge shoes to fill. In our Staff Spotlight, you will meet two of our newest team members.

At OADDL, we actively engage in outreach programs to advance veterinary medicine. In this edition, we highlight some of our recent efforts involving international veterinarians and our collaborations with Langston University.

We are extremely proud to meet the diagnostic needs of our clients on a daily basis. Your feedback and input are always appreciated. Please contact us at (405) 744-6623 or <u>http://cvhs.</u> okstate.edu/oaddl.

– Dr. Keith L. Bailey

BIOSECURITY GUIDE for Poultry and Bird Owners



For more information, click the picture above.

Dr. Eileen M. Johnson Retires

Dr. Eileen M. Johnson received her DVM as well as a Masters and PhD in Parasitology from Oklahoma State University. Following completion of her PhD, Dr. Johnson moved to California and served as a diagnostic parasitologist and research associate for the University of California at Davis and the California Veterinary Diagnostic Laboratory System. While in California, Dr. Johnson was instrumental in identifying trematodes as the vectors for the agent of Potomoc Horse Fever. Following a successful tenure in California, she returned "home" to Oklahoma State and has served as a Clinical Associate Professor in the Department of Veterinary

Pathobiology. In addition to providing diagnostic parasitology service, she has trained scores of veterinary students to have competent parasitology skills heading into practice. From the research and investigation standpoint, Dr. Johnson has been active adding to the scientific literature, particularly related to American canine hepatazoonosis. Indeed, Dr. Johnson has an international reputation of excellence as a diagnostic parasitologist and teacher. In addition to her scientific accomplishments, Dr. Johnson is an artist, creating beautiful pieces of pottery and teaching others to do the same as a pottery instructor. Dr. Johnson is a most respected colleague and will be



GARY LAWSON / OSU MARKETING greatly missed by the CHVS community.

Screening Beef Cattle for Johne's Disease

OADDL offers a screening panel for Johne's disease, Bovine Viral Diarrhea Virus (BVDV) and Bovine Leukemia Virus (BLV) to assist breeders and producers with retention of breeding stock and selection of new animals.

Johne's disease is caused by *Mycobacterium avium ssp. paratuber-culosis*, a bacterium that cattle may harbor for years prior to clinical illness. The Johne's enzyme-linked immuno-sorbent assay (ELISA) detects antibody to this bacterial organism.

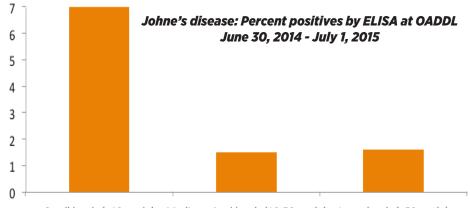
Testing

While the ELISA is most useful for detecting Johne's disease in clinically-affected cattle, it can also be utilized as a screening test for herds with unknown disease status. Active infections can be confirmed by polymerase chain reaction (PCR) testing of feces (both individual and pooled) in our Johne's certified molecular diagnostic laboratory.

Reducing losses

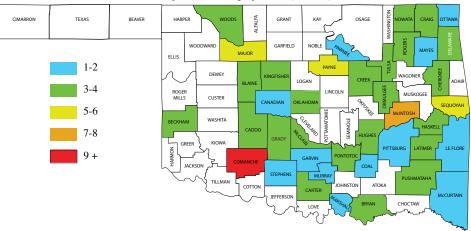
Prompt removal of affected animals is important to reduce morbidity and economic losses.

– Dr. G. Rezabek & J. Jones



Small herds (<10 cattle) Medium-sized herds (10-50 cattle) Large herds (>50 cattle)

Distribution of Johne's positive cases, (ELISA and PCR) June 30, 2014 – July 1, 2015 (n=110)



OADDL welcomes new pathologist, Dr. Brad Njaa

Dr. Brad Njaa grew up in the prairies of Saskatchewan, Canada, and spent time in urban and rural regions. He received much of his training at the University of Saskatchewan, first as an undergraduate student in physiology and then as a veterinary student at The Western College of Veterinary Medicine (WCVM). Five years in mixed animal practice allowed him to reflect on passions within the profession and even in mixed practice, he enjoyed special sense disease, primarily ocular problems, and trying to find out why animals died or did not respond to treatment. He returned to the Department of Pathology at WCVM for a combined anatomic and clinical pathology residency in 1996. His research project during his residency involved validating skin biopsy samples for BVD IHC testing. Since completing his program in 1999, he

Getting to Know Us

Dr. Rupika DeSilva grew up in Sri Lanka. She earned a degree in veterinary medicine from the University of Peradeniya and started her career as a veterinarian in a mixed animal practice. Four years later, Rupi left Sri Lanka to Kansas State University where she earned a Master's degree in veterinary pathobiology. After working in biotechnology industry and academia in St. Louis, MO, Washington, DC and Sydney, Australia, Rupi and her family arrived in Stillwater in 2001. Some of you may know Rupi from her days in OADDL as a resident in anatomic pathology. Rupi and her husband are parents to two children, a dog and a cat. She likes to spend all her spare time with her family and pets.

has worked in several states, including the Animal Disease Diagnostic Laboratory in West Lafayette, IN, Cornell University and Oklahoma State University. He initially joined the OSU family in 2007 in the Department of Veterinary Pathobiology. After a brief hiatus at IDEXX Laboratories Inc. from 2013-2015, he is back as an associate professor in the Oklahoma Animal Disease Diagnostic Laboratory (OADDL). His research interests continue to focus on the pathology of special senses (otic and ophthalmic) but also include, respiratory disease, reproductive disease, diseases of exotic species, and infectious diseases. He is always on the look out for interesting cases that he can publish or share with the pathology residents. In his spare time, Brad enjoys cycling and hiking with his family.



PHOTO COURTESY OF GARY LAWSON / OSU MARKETING

Ideas/Suggestions for Future Content

We want to hear from you. Send us your ideas and suggestions to <u>oaddl@okstate.edu</u>.

Contact Us

Oklahoma Animal Disease Diagnostic Laboratory Ph: 405-744-6623 Fax: 405-744-8612 www.cvhs.okstate.edu/oaddl f Follow us on Facebook



Come and see us at Fall Conference! November 19-20, 2015.

For more information, click here.

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