

OADDL E-News

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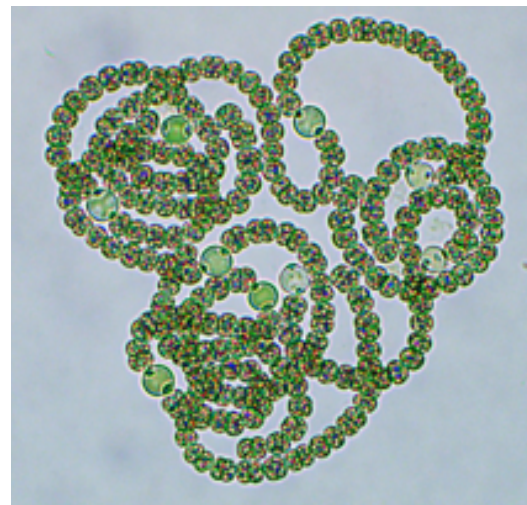
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It's Blue-Green Algae Time Again

Blue-green algae or cyanobacteria are naturally present in ponds, lakes, rivers and oceans. They grow rapidly or “bloom” in warm weather, usually during summer and early fall. Some algal blooms produce neurotoxins and hepatotoxins. **Water samples can be tested for the presence of blue-green algae at OADDL.** It is recommended to sample multiple areas of the pond or lake, especially downwind where blue-green algae tend to accumulate. Eight (8) to 12 ounces of water are needed for testing.

— Dr. A. Ramachandran



Cyanobacteria from a pond in Payne County, June 2016 – 40X

Porcine Congenital Tremor Pestivirus Identified in Oklahoma

Congenital tremors in newborn pigs is a sporadic condition recognized in domestic swine since 1922. Scientific publications from [Kansas State](#) and [Iowa State](#) in 2015 reported identification of a novel porcine pestivirus associated with this condition.

A single 8-week-old piglet was submitted to OADDL for necropsy from an Oklahoma producer. Three litters on this farm experienced tremors since birth. Lung and lymph node from the piglet tested positive for congenital tremor pestivirus by PCR at Iowa State University.

— Dr. G. Rezabek



CENTER FOR VETERINARY HEALTH SCIENCES
Healthy Animals — Healthy People

Fetal Bovine Necropsy Cases during the 2015-2016 Calving Season

Forty-four (44) bovine fetuses or newborns were submitted to OADDL for necropsy and abortion work-up from September 1, 2015 to April 30, 2016. Significant or potentially significant findings were identified in 31 cases

(70%). Viral infections were identified in 7 cases (16%). Non-infectious factors were identified in nearly half of the cases, with low or deficient fetal copper levels being the most common finding followed by nitrate toxicosis.

Necropsy results from the 2015-2016 calving season highlight the need for a sound vaccination program and a quality feeding program.

– Dr. K. Bailey



Necropsy Findings in Bovine Abortions

	Number of Cases
Bacteria (9)	
E. coli	2
Leptospira	1
Salmonella	1
Other/undetermined	5
Viral (7)	
BVD	3
IBR	4
Protozoal (1)	
Neospora	1
Non-infectious (21)	
Low/deficient fetal (liver) copper	18
Nitrate toxicosis	3
<i>Copper analysis on fetal liver and nitrate analysis on fetal ocular fluid were performed at the Utah Veterinary Diagnostic Laboratory.</i>	

Anthrax Testing

The last major outbreak of anthrax in Oklahoma livestock occurred in 1957 in the northeastern counties of Craig, Mayes and Ottawa. The last case of anthrax diagnosed at OADDL was in 1997.

Postmortem blood (2-5 mL in a red-topped tube) and swabs of bloody exudates are the preferred specimens for testing. The blood sample can also be used to test for anaplasmosis and lead poisoning, once verified negative for anthrax. The blood sample should be double-bagged with the paperwork outside the plastic bags.

The transport of whole animal carcasses is not recommended due to the significant risk for personnel exposure and environmental contamination.

– Dr. A. Ramachandran

***Bacillus anthracis* colonies on blood agar plate after 24 hour**



CEM Testing Update

OADDL is one of only 14 labs in the United States approved to perform culture testing for Contagious Equine Metritis (CEM). As of June 1, 2016 the following new requirements for CEM culture testing went into effect:

Sample collection:

- Clitoral sinus samples must be collected on small diameter swabs (rayon recommended).
- Cervical/endometrial samples must be collected with a guarded uterine swab (not amies swabs)
- Dissolved swabs will not be tested

- Samples must arrive cold on ice packs

Submission form must include the following information:

- Name, address, and telephone number of the submitting veterinarian
- Signature of the submitter
- Name of the owner or responsible person
- Location including county of the animal sampled
- Unique animal identification
- Date and time of sample collection

- Anatomical sites of sample collection

Required information on swabs:

- Animal ID
- Site of collection
- Date and time of collection

Please notify OADDL Bacteriology lab at (405) 744-6623 2 days prior to sample submission.

VS Guidance 15202.1 "Approval of and Requirements for Laboratories to Conduct Tests for Contagious Equine Metritis (CEM)"

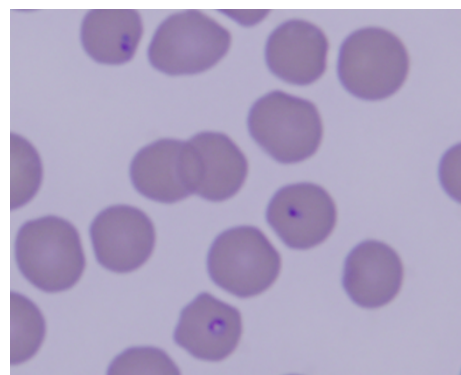
Cytauxzoonosis

OADDL has seen a recent increase in cats testing positive for *Cytauxzoon felis*. *C. felis* is transmitted by ticks *Amblyomma americanum* and *Dermacentor variabilis*. Peak infections occur during warmer months when ticks are most active. Preventive measures include avoiding exposure to ticks (indoor confinement) and initiating tick control treatments. OADDL offers a PCR test for *C. felis* diagnosis.

Recommended sample is 0.5 mL EDTA blood. This PCR test was developed in the laboratory of Dr. Mason Reichard, [National Center for Veterinary Parasitology](#).

– Dr. Y. Nagamori
& Dr. A. Ramachandran

Piroplasms in RBC of infected cat. Photo provided by Dr. Sunao Fujita, Dept. of Veterinary Pathobiology, CVHS, OSU.



Equine Bits:

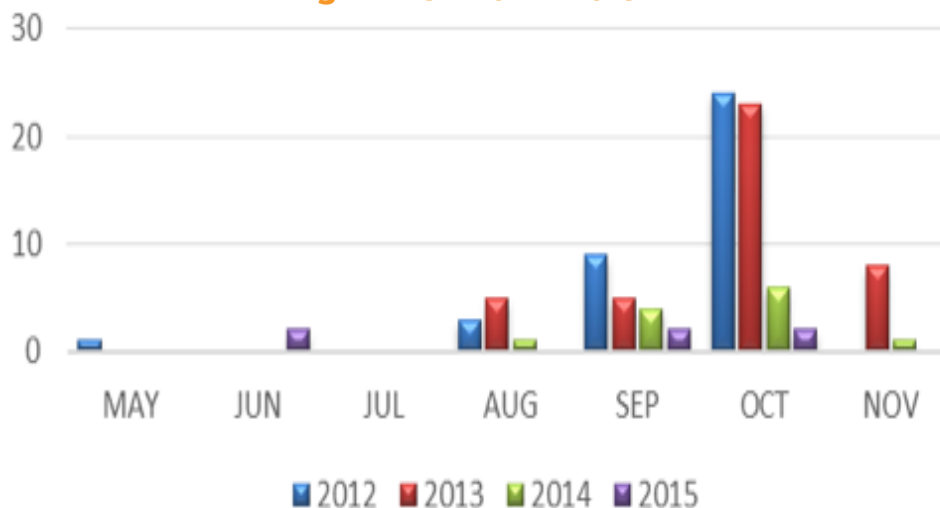
Equine Disease Surveillance: There is a new web-site available to inform veterinarians, owners and the equine industry about disease outbreaks in the USA. There was an EHV-1 outbreak in Texas reported in early June 2016. Notify State/Federal agencies about all reportable diseases, and utilize this website for news on outbreaks that could affect your client horses. Visit the website at <http://www.equinediseasecc.org>.



It's Time to Vaccinate/Booster for West Nile Virus (WNV): Fall is when the most equine cases are seen, with October being the peak month. The IgM ELISA test for WNV is available at OADDL.

– Dr. G. Rezabek

Oklahoma Equine West Nile Cases by IgM ELISA 2012 - 2015



Know Your Ticks

Ticks and the diseases they transmit pose a severe health risk to people and animals throughout Oklahoma. Identifying the species of ticks causing a problem may help guide diagnostic efforts for tick-borne diseases and is often the first step towards recommending effective control programs.

The most common tick in Oklahoma and surrounding areas is *Amblyomma americanum*, the lone star tick. Populations are usually maintained on wildlife hosts, but larval, nymphal, and adult lone star ticks

readily feed on people as well as pets, horses, and livestock.

Other common species in the region include Gulf Coast ticks (*Amblyomma maculatum*), American dog ticks or wood ticks (*Dermacentor spp.*), brown dog ticks (*Rhipicephalus sanguineus*), deer ticks (*Ixodes scapularis*), and spinose ear ticks (*Otobius megnini*). Although the intensity varies, ticks are active in Oklahoma throughout the year.

Parasitologists at Oklahoma State University collect information on tick

risk throughout the region to support veterinarians in their efforts to better understand tick problems in their patients. OADDL also offers species identification for any ticks recovered from animals. Reports include detailed information on species and stage of ticks submitted, the biology and habitat preferences of those particular ticks, and a list of diseases the ticks are known to transmit. Identification can be performed on ticks submitted dry or in alcohol.

— Dr. Susan Little



Above left: Adults of *Ixodes scapularis*, the black-legged tick or deer tick, are active in the cooler months, with peak activity usually seen in October or November each year. From left to right: male and female deer tick.

Above right: Brown dog ticks (*Rhipicephalus sanguineus*) are unusual in that they will infest a home or kennel and can be found throughout the year. These ticks are also occasionally found outside around the home during the warmer months, but always in association with dogs. Left to right: female and male brown dog tick.

Left: Lone star ticks, *Amblyomma americanum*, are the most common tick removed from people or animals in the southern United States. Clockwise from top: nymph, adult female, adult male, and larva lone star ticks.

Director's Note

This issue of E-News marks the 2-year anniversary of our electronic newsletter. The newsletter has been very well received. We currently have a distribution of approximately 2,200 subscribers.

We strive daily to be a better laboratory and improve our connectivity with clients. Technology has helped tremendously in that area. In 2015, we sent 8,716 diagnostic reports to our clients outside routine business hours. In September we are scheduled to go live with a new computer software system that allows clients remote access to results any time of the day.

Thank you for your continued support of OADDL! We hope that you all have a safe and memorable summer.

– Dr. K. Bailey

Improved Heartworm Testing

The Parasitology Laboratory at OADDL is now offering an improved heartworm test for dogs and cats. This method, developed by Dr. Susan Little's group at the [National Center for Veterinary Parasitology](#) (NCVP), reduces the number of false negative tests by unmasking the heartworm antigen. The photo shows 6 false negative samples in which heartworm antigen was detected following heat-treatment (blue wells are positive). See this [link](#) for details.

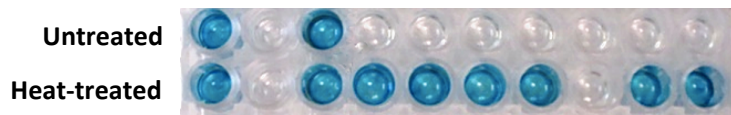


Photo courtesy of the Krull-Ewing parasitology lab at CVHS

Getting to Know Us

Debbie Gann is originally from Missouri but grew up in Tulsa, OK. She earned her BA in Mathematics at Lindenwood University, St. Charles, MO. Debbie joined OADDL in 2011 with over 30 years of experience in Quality Control and Customer Service management. She is the Business Section Head in charge of Accounting, Client Services and Human Resources. She and her husband Ken have 2 sons, 6 grandkids and 1 great grandbaby. She has a passion for dogs (especially herding breeds) and has two fabulous dogs Jax (Border Collie mix) and Kori (Australian Cattle Dog). Debbie serves on the Board of Directors for the Humane Society of Stillwater and for CAAP, a local spay/neuter group. CAAP has helped low-income pet owners spay/neuter almost 11,000 dogs and cats since 2002. In her spare



time, Debbie loves hiking, fitness, reading and anything dog-related. Her motto is "Life without a dog has no bark."

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Ideas/Suggestions for Future Content

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