

OADDL E-News

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Alternative Transport Medium for Trichomoniasis Testing of Bulls

The OADDL Molecular Diagnostics section recently completed a lengthy validation process on an alternative transport medium for bovine trichomoniasis (“Trich”) testing.

The alternative transport medium was tested extensively using field strains of *Tritrichomonas foetus*, the flagellate protozoan parasite responsible for this important venereal disease in cattle. The validation of trichomoniasis testing utilizing a similar transport medium was published earlier this year (Summarell, et al., 2018).

Benefits of this new transport medium include (1) **significantly reduced cost of testing**, (2) **quicker test results**, and (3) **longer storage time before the transport medium expires**. The new transport medium costs only a fraction of commercial medium. Additionally, incubation is not required with this medium prior to testing, so we are able to test the samples upon receipt.

Call us today at (405) 744-6623 for more details!

– Dr. K. Bailey



CENTER FOR VETERINARY HEALTH SCIENCES
Healthy Animals — Healthy People

New Bovine Respiratory Disease (BRD) Test Panels at OADDL

Bovine respiratory disease (BRD) is the most significant health concern of the U.S. beef industry. The financial impact of BRD is estimated to be approximately \$1 billion/year. This negative economic impact is attributed to production losses, costs of treatment, and animal deaths.

OADDL is now offering two polymerase chain reaction (PCR) panels to assist veterinarians investigating respiratory disease in cattle.

The comprehensive panel targets the following BRD pathogens: bovine respiratory syncytial virus (BRSV), bovine viral diarrhea virus (BVDV), infectious bovine rhinotracheitis (IBR), bovine respiratory coronavirus, and *Mycoplasma bovis*.

OADDL also offers conventional bacterial culture and antibiotic suscep-

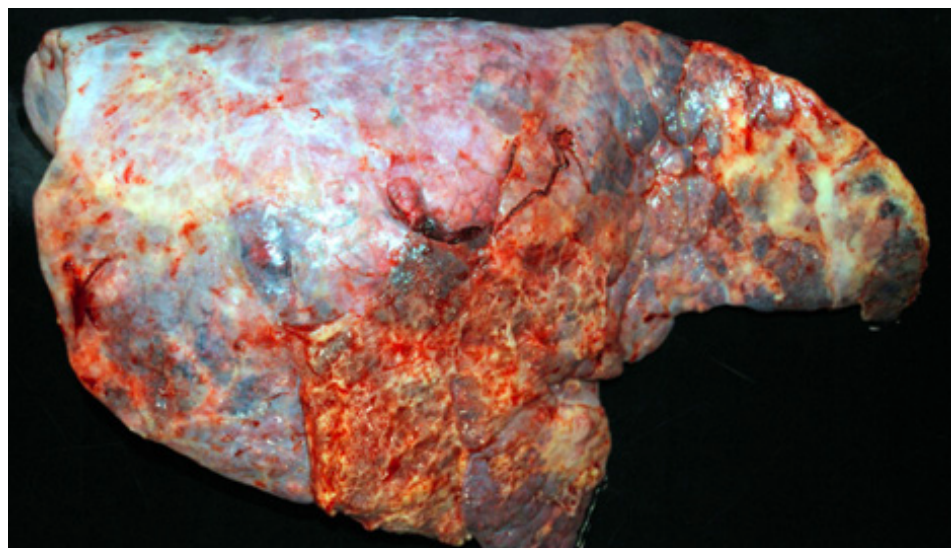


Figure 1: Acute fibrinous pleuropneumonia in a stocker calf. Photo courtesy Dr. Heather Herd.

tibility testing for respiratory pathogens such as *Mannheimia haemolytica*, *Histophilus somni*, *Pasteurella multocida* and *Bibersteinia trehalosi*.

Call us today at (405) 744-6623 for more details!

– Dr. K Bailey

BRD Wet Lab for Veterinary Students

Forty (40) veterinary students recently attended a necropsy wet lab at OADDL to gain hands-on experience with bovine respiratory disease (BRD). Zoetis student representatives Dalton

Newell ('21) and Kyre Larrabee ('20) organized the event. Dr. Douglas Hilbig, a Zoetis beef technical services veterinarian, demonstrated a field necropsy.

An overview of lung changes and sample collection was provided by CVHS' own Dr. Tony Confer (photo) and Dr. Erin Stayton.

– K. Larrabee



West Nile Virus Infection in Oklahoma Horses

The peak months of West Nile Virus (WNV) infection in Oklahoma horses are August, September and October. The majority of equine cases are in unvaccinated or improperly vaccinated horses. Oklahoma is one of thirteen states reporting increased WNV infections in horses during the past 30 days (Fig. 1).

All positive equine cases should be reported to Dr. Michael Herrin, Assistant State Veterinarian for Oklahoma.

The [Equine Disease Communication Center \(EDCC\)](#) is a database of equine diseases; this database is maintained by the American Horse Council.

– Dr. G. Rezabek

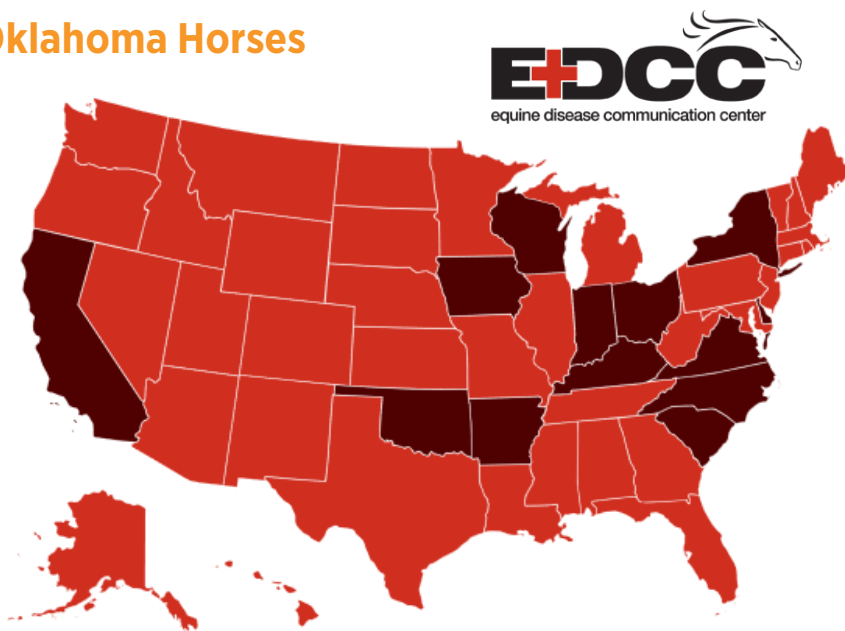


Figure 1. Dark color indicates states reporting positive equine WNV cases in the past 30 days. Data presented with permission from EDCC.

Rocky Mountain Spotted Fever in Dogs: 2015-2018

Rocky Mountain spotted fever (RMSF) is a tick-borne disease caused by the bacterium *Rickettsia rickettsii*. RMSF is spread to dogs and humans by *Dermacentor sp.* ticks.

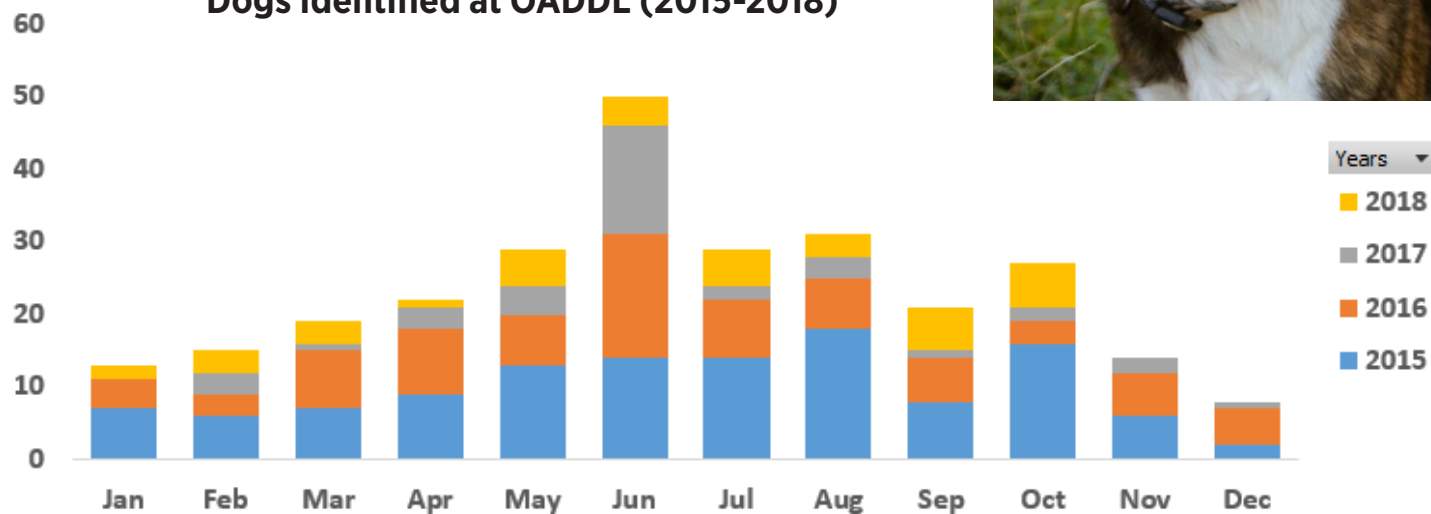
The detection of antibodies in serum is the most commonly utilized diagnostic test for RMSF in dogs.

Seropositive dogs are identified in all months of the year in Oklahoma, with the highest number of cases during summer months (Figure 1). Affected dogs may have co-infections with *Ehrlichia sp.* or *Anaplasma sp.*

– A. Hoyt & Dr. G. Rezabek



Seasonal Distribution of RMSF-Seropositive Dogs Identified at OADDL (2015-2018)



Letter from the Director

Agriculture is not only a primary economic driver in Oklahoma, but is a way of life for many Oklahomans. In 2016, Oklahoma ranked #4 in the U.S. with 78,100 farms and ranked #8 in the U.S. with 34.2 million acres of farmland.

According to the Oklahoma Agriculture Statistics, there were 5.1 million cattle in Oklahoma at the beginning of 2018. In this survey, Oklahoma ranked #3 in the U.S. with more than 2.1 million beef cows.

At OADDL, we are constantly looking for ways to better serve our

agriculture partners. In this issue of our e-Newsletter, we are excited to roll out a more economical approach to testing bulls for bovine trichomoniasis ("Trich"). Not only is this new approach cheaper, but it also provides faster results.

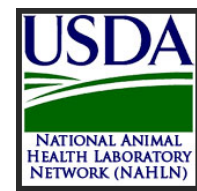
We have also developed new test panels for bovine respiratory disease (BRD) in cattle.

In addition to offering many diagnostic tests for endemic livestock diseases, OADDL is a member of the USDA's National Animal Health

Laboratory Network (NAHLN). Being a member of NAHLN allows us to test for diseases of high consequence such as avian influenza, foot-and-mouth disease, and classical swine fever (hog cholera).

We are proud to help protect Oklahoma agriculture and the U.S. food supply.

– Dr. K. Bailey



Getting to Know Us

Scott Talent is the laboratory manager of the OADDL Microbiology (Bacteriology and Mycology) section. Scott grew up in Stillwater, OK and earned degrees from OSU in fine arts and microbiology. He enjoys playing video games with his wife and children, painting and cooking spicy food.



Amy Hoyt is originally from Oak Ridge, TN. She and her family moved to Stillwater when she was in high school. In 2011, she graduated with a B.S. in Biochemistry and Molecular Biology from OSU. Amy is the Lab Manager in Serology and has worked at OADDL for 3 years. Amy has been married to her high school sweetheart for 6 years and has two cats (Tom and Gwen), three dogs (Buddy, Eva, and hospice foster Mercy), a horse (Codac), and a corn snake (Flynn). She spends most of her free time helping out at the Humane Society



of Stillwater. She also enjoys knitting, horseback riding and camping.

Ideas/Suggestions for Future Content

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

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