

# Diagnostic INSIGHTS



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Gary Anderson, DVM, MS, PhD

Recently we have received inquiries about our hours of operation and the services provided by the Kansas State Veterinary Diagnostic Laboratory (KSVDL), so I will take this opportunity to provide some clarification. Our regular, full-service business hours are Monday through Friday 8:00 AM to 5:00 PM.

A pathologist is on-call every night and weekend for emergency questions and can be reached at either 785-532-5650 or 866-512-5650 (toll free) and selecting the appropriate option. In addition, the KSVDL is open with a limited staff from 8:00 AM to Noon on Saturdays – phones are operational, pathologist is available, necropsies are performed, mail is processed, bacterial cultures set, and if someone doesn't answer the phone, leave a message and the call will be promptly returned. The preferred phone number to use Saturday mornings is 785-532-4349 to our Receiving area.

Our Clinical Pathology section operates the same hours as the other KSVDL sections. If samples are received by 3:00 PM, Monday through Friday and by 10:30 AM on Saturday, the results will be faxed by the end of business the day they are received. Results will go out as soon as possible the following morning if the samples are received after 3 PM the day before.

Our holiday schedule generally adheres to the Federal holidays; however, there are some differences. The KSVDL is closed New Years Day, Martin Luther King Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving (and day after), and Christmas, but is open on Presidents Day, Columbus Day, and Veterans Day.

The KSVDL goal during inclement weather is to remain open and full service at all times. However, not all employees may be able to get to work on some of those days, so we will operate with the personnel available (skeleton crew). We will at least provide "base support" in each section throughout the KSVDL during inclement weather.

Please note, our remittance address has recently changed. Beginning immediately, please make your checks payable to **K-State Diagnostic and Analytical Services**. This change has no effect on services or identity of the KSVDL. Please contact our accounting office at 785-532-3294 if you have questions or concerns.

I hope this helps to clarify our hours of business and that our services will allow you to maximally and optimally utilize the KSVDL for your practice and clients – remember, we are here to partner with you to the best of our ability. As always, please do not hesitate to contact me with any ideas or concerns that you might have. I can be reached at 785-532-4454 or ganders@vet.k-state.edu. We sincerely thank you for your business!

## Interesting Case:

by Jerome Nietfeld, DVM, PhD, DACVP



### Bracken Fern Poisoning in Cattle

In December we necropsied a bull from eastern Kansas submitted by Drs. Nichols and Miesner of the K-State Veterinary Medical Teaching Hospital for suspected bracken fern toxicity. In cattle, bracken fern is toxic to the bone marrow and causes pancytopenia with the severest effects on granulocytes and platelets. This bull was thrombocytopenic and was bleeding from the nose and anus. Another bull had died a few days before and had similar bleeding. The bull was mildly anemic, but its white count was very low with 100% of the white cells being lymphocytes. A necropsy determined the bull's bone marrow was pancytopenic with granulocytes being especially rare. It was confirmed that the bulls had been grazing pasture with bracken fern, and the owner thought that bracken fern also had been in some of the baled hay.



## *KSVDL Keeps Watch for Classical Swine Fever*

*by Richard Oberst, DVM, PhD, Director of Molecular Diagnostics*

Classical Swine Fever (CSF), also called Hog Cholera, is a highly contagious viral disease of swine that was eradicated from the United States nearly 30 years ago. As part of an ongoing effort to keep CSF out of the country, the USDA/National Animal Health Laboratory Network (NAHLN) has established a national CSF surveillance program. The goal of the program is to enhance surveillance for the rapid detection of CSF if introduced into the U.S. swine herd.

The KSVDL is a member of the NAHLN and will receive and test samples from swine suspicious for CSF. A cooperative agreement between the KSVDL and NAHLN will pay cooperators (submitting veterinarians) \$50 per pig sampled when tonsil and/or nasal swabs are submitted along with minimal demographic information. Samples must come

from animals that have history, clinical signs and lesions compatible with CSF. The KSVDL will credit the account of participating clinics/veterinarians.

The USDA considers Kansas a high risk state because of swine numbers and other demographic considerations. If you are interested in participating, please contact the KSVDL and we will send out sampling kits and instructions. It is important to stay vigilant, so we consider this to be a positive program to protect animals and significant portions of our agricultural economy.

Please contact the KSVDL at 785-532-5650 or [DLabOffice@vet.k-state.edu](mailto:DLabOffice@vet.k-state.edu).



## *Bovine Leukosis Virus (BLV) Control Strategies*

*by Robert L. Larson, DVM, PhD, Coleman Chair in Food Animal Production Medicine*

The bovine leukosis virus targets white blood cells and is present in many cattle herds in the U.S. Many cattle infected with BLV spend their lives with no signs of disease; however between 1 and 5% of cattle with the virus will eventually develop lymphosarcoma tumors which can affect various organs in the body. Tumors can cause different clinical signs depending on their location such as infertility if present in the uterus or difficulty walking or paralysis if found in the spinal cord. Animals may become emaciated when infected with BLV, and condemnation at slaughter may be necessary when tumors develop.

An accurate serology test (AGID) for BLV infection is available through the KSVDL. The test requires 2 ml of serum and results will be available within 2-3 days.

Veterinarians and producers may limit the chance for transfer of blood between animals by using individual disposable needles for all injections, disinfecting castration and dehorning equipment between animals, and using individual palpation sleeves.

Additionally, herd control strategies for BLV can use a combination of testing, segregation, and/or sanitation by instituting one of the following strategies:

- Test all animals greater than 6 to 8 months of age and cull all positive animals and repeat the procedure until no more animals are found to be positive to the virus, or until another herd goal is met (level of infection in the

herd). Smaller herds and herds with few positive animals may find this strategy simple to implement.

- Test all animals greater than 6 to 8 months of age and separate the herd into two herds, a positive herd and a negative herd, and utilize strict management procedures to prevent the transfer of blood from the positive herd to the negative herd. The BLV-negative herd must be tested on a regular basis and any positives that are found must be moved to the positive herd.
- Leave the herd as it is and don't begin a testing schedule, but begin using techniques which minimize the spread of the virus and allow only replacements into the herd which do not have the virus. Over time, the percentage of the herd with bovine leukosis virus should decrease. The major advantages of this type of control program are facilities do not have to be duplicated and genetically superior individuals are not lost to culling as a result of BLV status.

Please contact Dr. Robert Larson at 785-532-4257 and [rlarson@vet.kstate.edu](mailto:rlarson@vet.kstate.edu) or the KSVDL office at 785-532-5650 and [DLabOffice@vet.k-state.edu](mailto:DLabOffice@vet.k-state.edu) for further information.

Robert Larson, professor of clinical sciences and the Coleman Chair in Food Animal Production Medicine studies the integration of animal health, production efficiency and economic considerations in beef cattle production. He has specifically looked at the economic effects of control strategies for bovine viral diarrhea, neosporosis and neonatal diarrhea.



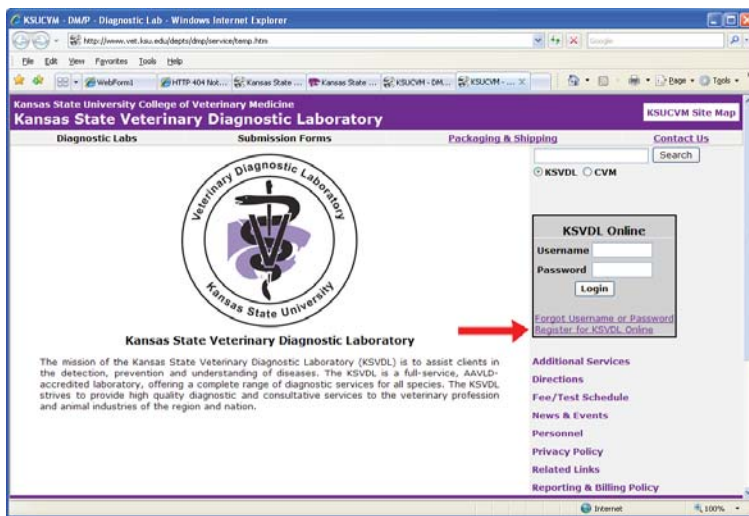
## KSVDL Online – Case Submission Results Available 24/7

by Jeff Anderson, BS, Computer Information Specialist

In this day and age, it seems that everything is available “online”. People have access to banking, commerce, data records, and so much more. Timely and accurate access to information is the key. Correct business decisions made with timely and accurate information can enhance the bottom line. At the KSVDL we provide access to your client submissions through our system called KSVDL Online. KSVDL Online gives you access to the submission, test results, and result attachments; 24/7. This information can also be downloaded for your additional analysis and use.

To use KSVDL Online you only need access to the internet through an internet browser like Internet Explorer or Mozilla Firefox. Internet access is almost a given in this day and age. The only question is the method and speed of your connection and neither of these factors inhibits your use of KSVDL Online. One or both of the two internet browsers are available by default on a new desktop or laptop computer. So KSVDL clients with an internet connection should be set to enter and use KSVDL Online.

To get started go to the KSVDL website, [www.vet.k-state.edu/ksvdl](http://www.vet.k-state.edu/ksvdl) and select ‘Register for KSVDL Online’.



After submitting the completed registration form and account approval, the account will be created. The account information will be emailed to the new user for access to KSVDL Online. Using your user name and password in the above login area, you are on your way into the digital age!

A user guide is available on the KSVDL website to explain the features and how to use KSVDL Online.

If you have questions, please call Jeff Anderson at 785-532-4682 or email questions to [KSVDLOnline@vet.k-state.edu](mailto:KSVDLOnline@vet.k-state.edu).



## Osteopetrosis in Calves

by Jerome Nietfeld, DVM, PhD, DACVP

Osteopetrosis is a disease in which the initial bone formed by the growth plates of long bones is not reabsorbed and remodeled and the marrow cavities become filled with bone. Abnormalities of the head often accompany the changes in the long bones. Osteopetrosis occurs in humans and a long list of animals. Cattle breeds known to be affected are black and red Aberdeen-Angus, Hereford, Simmental, and Holstein. This winter we diagnosed osteopetrosis in two red Angus calves from different Kansas herds. The dam of the affected calf in the second

herd was purchased as a bred heifer from the first herd and both calves were sired by the same bull.

Osteopetrosis in Angus calves is an autosomal recessive trait in which calves are born premature (250 to 275 days of gestation) and usually dead. They typically have head abnormalities that consist of brachygnathia inferior, impacted molars, and a protruding tongue. Their long bones are shorter than normal and when split lengthwise the marrow cavities are filled with un-reabsorbed bone (primary spongiosa). Thirty to 40 years ago osteopetrosis was a fairly common genetic defect but because of an aggressive policy by cattle breeders to identify and remove carriers, the condition is rare today. Last year we also diagnosed osteopetrosis in a red Angus calf which was the first case that I had seen in the last 15 years. Because of these three calves, the Red Angus Association is starting a program for reporting osteopetrosis in order to develop a test to identify carrier cattle. In order to develop the test, tissues from approximately 10 affected calves (an ear will work fine) will be needed. So far, they only have tissues from the two calves identified this winter.

If you find a Red Angus calf you feel might have osteopetrosis and want to assist by providing tissue samples, or if you have questions about the osteopetrosis condition, please contact Larry Keenan of the Red Angus Association at 940-387-3502 or by email at [larry@redangus.org](mailto:larry@redangus.org). Alternately, you can contact Jerome Nietfeld at the KSVDL at 785-532-4460 or at [nietfeld@vet.k-state.edu](mailto:nietfeld@vet.k-state.edu)



The mission of the Kansas State Veterinary Diagnostic Laboratory (KSVDL) is to assist clients in the detection, prevention and understanding of diseases. The KSVDL is a full-service, AAVLD-accredited laboratory, offering a complete range of diagnostic services for all species. The KSVDL strives to provide high quality diagnostic and consultative services to the veterinary profession and animal owners.

**Contact Information:**

**Kansas State Veterinary Diagnostic Laboratory**  
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Rabies: 785-532-4483  
Accounting Office: 785-532-3294.



For information on connecting to WebAccess for real-time test results, contact the KSVDL IT department at 785-532-4682.

Visit our website at:

Web: <http://www.vet.k-state.edu/depts/dmp/service/index.htm>

*Diagnostic Insights* welcomes your suggestions for future articles or comments about current articles.

Send your ideas to Barbara Barkdoll at [bbarkdol@vet.k-state.edu](mailto:bbarkdol@vet.k-state.edu).

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