



Wyoming State Veterinary Laboratory Newsletter Vol 2(#4):November, 2001

Wyoming State Veterinary Laboratory
1174 Snowy Range Road, Laramie, WY 82070
TEL: (800) 442-8331 FAX: (307) 721-2051

<http://wyovet.uwyo.edu/>
University of Wyoming

WSVL News

Message from the Director:

There have been a few changes here at WSVL since the last newsletter. Dr. Frank Galey has assumed the position of College of Agriculture Dean along with all the headaches that go along with that job. I am serving as interim director of WSVL and Department Head until we are able to fill that position. The search is underway and by the time you get this we should have narrowed down the list so wish us luck in getting a new leader for the laboratory and department.

A major issue at the laboratory is the sudden disparity in pay for our experienced staff when compared with similar state positions. In the last legislative session the rest of the state asked for and got a commitment to bring employees up to a level closer to market. UW was not part of that effort and so market adjustments were not made. This has created situations where individuals in state jobs are being paid 40-60% more than WSVL personnel with similar experience and responsibilities. There is the real possibility that as state jobs come open we will lose some of our highly trained people, which will have a significant impact on the quality of service we can provide. WSVL does not have enough money in its budget to correct this situation and it can only be fixed if the University seeks and gets the \$\$ to make similar market adjustments. If market adjustments are not addressed with the next budget the WSVL will serve as a training ground for other state laboratories and we will not have the well-trained professionals that have been the backbone of the WSVL. We hope that President Dubois makes salaries and market adjustments a priority in the next session and if that is the case we would appreciate your support in that effort.

Please make an effort to get a legible copy of the accession form to us. It is tough to get the samples sent to the right labs and call out results when we don't know who sent what.

Ken Mills PhD
Interim Director
WSVL

Waiting to exhale: tension pneumothorax in a Labrador due to inhaled head of wheat.

A local practice in SE Wyoming was treating a young Labrador for respiratory difficulties. The owners made an out-of-hours call and, before it could be examined clinically, the dog died. When the veterinarian opened the thoracic cavity, he was surprised to find forceful expulsion of air from the pleural sac (tension pneumothorax). The cause of the dog's demise was an inhaled almost-complete head of wheat. We assume the dog inhaled it while running through a field. It worked its way through the pulmonary parenchyma and eventually punctured the pleural sac, resulting in pneumothorax and death of the dog. This is a rare but well recognized entity in pediatric medicine. There are several reports of it in dogs.

Equine protozoal encephalitis in native Wyoming horse.

In the wake of EHV-1 myelitis, we have received an increased number of horse brains for examination. To date, we have diagnosed no EHV-myelitis outside the Buffalo-Sheridan area. The

head of a 10 - 15 year old horse with acute-onset neurological signs was submitted from the western part of the state. The horse was found entangled in a fence and euthanized the same day. There was a 5-cm area of malacia in the posterior pole of the right cerebrum. Moderate numbers of protozoa were in the lesion. The morphology of parasites was consistent with *Neospora*. *N. hughesi* is an uncommon cause of equine protozoal myelitis (EPM). The other, more common cause of EPM is *Sarcocystis neurona*, which is spread by opossums; no opossums are present in far western Wyoming where the horse was found. The life cycle of *S. hughesi* is unknown. To our knowledge, this is the first case of histologically-confirmed EPM in a Wyoming horse that never left the state. Additional studies are being done to identify the organism and to establish whether other horses on the ranch were exposed.

COGGINS CORNER – GUIDELINES
please share this information with your staff

Many of you are aware that Ella Nelson retired in July. Her position was not filled, leaving the lab short staffed. However, we are still turning around your sample submissions in the same expedient manner:

EIA-AGID : Requires 24 hours.
We set up every sample the day we get it and we mail out your results the next day after the analysis is complete.

EIA-ELISA : **Requires around 3-4 hours from the time the sample arrives. All incoming samples must be unpacked, identified, grouped, assigned accession numbers and then set up. We cannot test samples individually. We must get all of the incoming Elisa samples together and run them as a group. Results should be ready by 3:00 p.m. at the latest. We always fax or call the Elisa results out that day. We also mail out the results that day.**

Please give your clients a reasonable time frame in which to expect their results. The majority of time required to get your results is the time spent in transit to and from the lab. Please check your mail before calling for results and please make sure your fax is operational before requesting a fax. A great deal of lab time is spent repeatedly faxing results to machines that are not operational and faxing results that will arrive in the mail that day.

Samples per year:	Sept. 2000 - Sept. 2001
Equine Infectious Anemia:	14,568
Brucellosis:	44,683

EIA FORMS: The USDA APHIS office in Cheyenne has possession of the blank EIA books. Please call them for forms at 772-2186. Please press firmly when filling out forms. We must create photocopies for any of the 5 pages that do not transfer through.

PACKAGING SAMPLES:

The boxes of blood tubes that we mail are intended for Brucella samples only. They have been used for coggins tests for so many years that clients don't realize that we are not responsible for supplying tubes for EIA analysis. This practice will not last indefinitely. For now we are asking that you not mail empty tubes back to us. It costs everyone money to mail empty tubes back and forth and the tubes become stressed and break. Please only mail the tubes that contain samples. When you need more tubes send a note in the box and we will return it full of empty tubes. Also, train your staff to separate the tubes from each other in the boxes. Glass tubes next to glass tubes are much more likely to break due to their contact with each other. You may also

send coggins samples in the white boxes that necropsy supplies. It always a good idea to send your blood samples on ice. We are not able to test samples that are hemolyzed.

Some veterinarians use separator tubes. Those work wonderfully because the sample cannot hemolyze during transportation. Others use plastic tubes and mail the samples in padded envelopes. This is very inexpensive and results in the least amount of breakage.

If you think of any methods on either end of the operation that will help please give us a call.

Thanks.
Dr. Lynn Woodard
Becky Wills.

PCR Testing Now Available at WSVL

We are pleased to announce that the WSVL is now able to provide polymerase chain reaction (PCR) testing for a growing list of viral and bacterial pathogens. These tests take advantage of the ability to identify specific gene sequences of infectious agents in tissues, blood, and other samples. The new PCR tests under development and currently available will complement our other diagnostic procedures (bacterial culture, virus isolation, fluorescent antibody tests, etc.) and in some cases may replace more complicated or less sensitive tests over time. We will be adding new PCR tests over the next year or two, and we will announce these new tests in future newsletters and will add these tests to the WSVL web site (http://wsvl.uwyo.edu/WSVL/fee_schedule.htm) as they become available. Please call the lab with any questions you might have about PCR testing, including what tests are available, proper sampling, and fees. At present we have the following PCR tests available – stay tuned, more to follow in short order!

<u>Agent</u>	<u>Sample</u>	<u>Fee</u>
Bovine respiratory syncytial virus (BRSV)	*Fresh tissue (lung) *Nasal swab in transport medium	\$28.00
Equine herpesvirus 1 and 4 (EHV-1,4)	*Whole blood *Nasal swab in transport medium *Fresh tissue (adult animal or aborted fetus)	\$25.00
Bovine viral diarrhea virus 1a, 1b, 2 (includes typing)	*Whole blood *Fresh tissue (lymphoid tissues, lung, liver, kidney and gut with Peyer's patches)	\$28.00
E. coli toxins	Fresh gut with contents	\$20.00
Mycoplasma	Fresh tissue or joint fluid	\$20.00
Clostridium perfringens toxins	Fresh gut with contents	\$20.00
Plague	Fresh tissue	\$20.00
Tularemia	Fresh tissue	\$20.00

From: *Wyoming State Veterinary Laboratory
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To: