

## **Investigating Animal Health Problems: CSU Diagnostic Laboratory**

An old adage states: "if you own animals, sooner or later they'll get sick and die". No producer can completely avoid this prophecy regardless of their management style, but the manifestations of health problems go far beyond overtly diseased animals. Whereas a sudden onset death loss problem easily catches the eye, subtle and insidious health problems can be more devastating financially. Losses can be aggravated when a health problem is inaccurately identified and the treatment or prevention plan is poorly directed.

Animal health problems are, and will remain, major concerns of any livestock enterprise. Their resolution requires a well formulated plan and a team approach. That team includes dairy personnel and managers, with the herd veterinarian. Sometimes additional expertise is needed from other consultants, or in the form of laboratory support.

Colorado dairy producers have access to an outstanding facility that can provide answers for animal health problems. The Colorado Veterinary Diagnostic Laboratory System is headquartered in Ft Collins and under the directorship of Dr Barb Powers, DVM, PhD (970-491-1281). Branches of the system are also located at Rocky Ford (719-254-6382) and Grand Junction (970-243-0673). The Diagnostic Laboratory System is composed of 9 major sections staffed by CSU-veterinarians and scientists whom are equipped to perform tests and interpret them for you. The laboratory prefers to work through veterinary practitioners, who help interpret technologically dense reports and implement appropriate health strategies at the dairy. For some problems a Disease Investigation Team from the Diagnostic Lab and the Veterinary Teaching Hospital will visit the farm to better work with you and your veterinarian.

Unfortunately, experience shows that many producers and veterinarians poorly utilize the Diagnostic Laboratory. Proper sampling and sample submission, a timely approach, and a well formulated statement of the health problem are critical elements in resolving animal health problems. Frequently, people fall prey to the false economy of delaying sampling or looking for answers from incomplete sampling, with hopes of minimizing laboratory costs. When "yet another" animal dies or the problem drags on for weeks and months, this perceived savings becomes no savings at all. For most producers it pays to routinely monitor specific causes of animal disease, and animal health status. Routine disease diagnosis and sample submission may return "negative" results but frequently such findings are useful in determining that a particular occurrence is not a serious problem.

A complete user guide of the Diagnostic Laboratory system is explained at a website < <http://www.vetmed.colostate.edu/dlab> > Specific questions regarding the function, submission policies and protocols, or test results may be answered by calling 970-491-1281. In order to effectively use the Diagnostic Laboratory's capabilities, here are some questions you should resolve before submitting samples:

- 1) What questions am I trying to answer? By clearly defining the problem you are trying to evaluate, the laboratory can better suggest the most effective testing strategy.
- 2) When should I take samples from an animal? Two common errors that can compromise the diagnosis are: post-mortem decay and specimens obtained too late in the course of the disease.
- 3) What should I send? The best answers can be expected from the best and most specific samples. Sometimes this means an entire, freshly dead animal, other times it means properly selected blood and tissue samples from living or dead animals.

Once samples are collected appropriately, the producer may submit them to the Diagnostic Laboratory at any of its branches. At submission a complete history of the problem and expectations from the sampling must be communicated. This step can greatly reduce costs from inappropriate testing. Information can be included in written form, or you can speak with laboratory personnel. Some specialized tests may be run at only one site in the nation, and in such cases the Diagnostic Lab will coordinate and send samples to the appropriate facility.

It can be difficult to await pending results. Certain analyses require days or even weeks to yield answers. You should inquire about this time requirement to avoid the frustration of waiting on unfinished assays. Normally results are sent by mail to the client and the veterinarian but results can be phoned in or faxed if that request is clearly recognized. Preliminary results may also be shared in cases of special concern. In complicated cases involving the submission of several tests to several sections in the lab a "case coordinator" will be assigned with whom the client or veterinarian may converse. Accurate communication of the clients' expectations will simplify and ease our delivery of this service.

The Diagnostic Laboratory is organized to provide the most complete and accurate service possible to the practitioner and producer. An advisory committee consisting of citizens concerned with animal disease diagnosis and monitoring serve as liaisons between the lab and community. Mr. Mike Dickinson of Loveland, Co is the dairy representative.