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K-State Veterinary Diagnostic Lab Expands Outreach

Gary Anderson, Director
Veterinary Diagnostic Laboratory

A strategic decision to enhance communication and outreach with Kansas State Veterinary Diagnostic Laboratory (KSVDL) stakeholders during 2011 has resulted in three new positions. The goal is to become more user friendly, and central to this effort are client communication and connectivity. The KSVDL advisory board continues to recommend greater interaction with clients as plans for service and business growth are developed.

As director of Production Animal Field Investigations, a new unit of the KSVDL,

Dr. Gregg Hanzlicek, will lead efforts to connect with clients in the production animal sector, with emphasis on the cattle industries. Dr. Hanzlicek's initial focus is the state's expanding dairy industry, where there is a need for the KSVDL to engage in more significant ways.

Dr. Bill Fortney coordinates companion animal outreach and is leading the redesign of the KSVDL web page. Dr. Brian Lubbers is director of clinical microbiology and head of the bacteriology laboratory. He provides expertise in clinical microbiology and food safety, with emphasis on microbial resistance and clinical pharmacology.

Partnering with practicing veterinarians who provide the experienced and motivated leadership to extend outreach capabilities is crucial. Hanzlicek, Fortney and Lubbers will interact with veterinarians, producers, and colleagues within KSVDL and throughout the College of Veterinary Medicine, Animal Sciences and Industry and the University. They will participate in state and regional meetings, selected diagnostic cases and field investigations. The practice experience, vision, energy, and passion for client partnering by these outreach people will significantly enhance our value as an animal health diagnostic laboratory.

Hanzlicek, Fortney, Lubbers Assume New Roles

Dr. Gregg A. Hanzlicek has been named the director of Production Animal Field Investigations at the Kansas State Veterinary Diagnostic Laboratory. Hanzlicek earned a bachelor's of science in



Dr. Gregg Hanzlicek

Animal Science from K-State in 1980. For the next seven years he worked in the dairy production animal industry. He earned a D.V.M. from Mississippi State University in 1991. For the next two years he was an

associate in a Wisconsin dairy practice. In 1993, he joined and later became a partner in a four-veterinarian large animal practice in northern Nebraska to focus primarily on dairy and

cow-calf production medicine. In 2001, he left the multi-veterinarian practice to start a solo bovine production medicine practice concentrating on reproduction, nutrition, and record analysis.

Hanzlicek left practice in 2007 to return to K-State and attend graduate school in veterinary epidemiology. He received a Ph.D. in 2010. His doctoral research focused on the epidemiology, diagnosis, and prevention of bovine respiratory disease complex. Hanzlicek has an extensive background in bovine nutrition, field investigations, and dairy and cow-calf record analysis.

He also has an interest in client education, animal welfare, dairy cattle health and culling, bovine respiratory disease, and mastitis. Hanzlicek is responsible for outreach to production animal practitio-

ners, conducting field research, teaching veterinary students, and helping practitioners conduct complex field investigations. You can contact Dr. Hanzlicek at 785-532-4853 or gahanz@vet.k-state.edu.

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Dr. William D. Fortney has recently joined the Kansas State Veterinary Diagnostic Laboratory as their Small Animal Outreach Coordinator. This part time position involves engagement and connecting with professional colleagues and KSVDL stakeholders to provide practical and up-to-date scientific information. In addition, he helps coordinate clinical validation studies for newly developed KSVDL tests.

Fortney earned a D.V.M. degree from the University of Missouri. After graduation he entered a small animal internship and medical residency program at Purdue University. Following his residency training, he was recruited by Dr. Jake Mosier to join the Kansas State Veterinary Medical



Dr. William Fortney animal medicine for 10 years and 12 years as director of community practice.

Throughout his career, Fortney has been involved in numerous undirected service activities, most notably continuing education. Bill has presented more than 400 national and international lecture series on small animal geriatrics; small animal pediatrics; and greyhound respiratory disease. He has written numerous scientific articles and book chapters on those subjects. Fortney was selected to be the editor for the Geriatrics edition of *Veterinary Clinics of North America* released in May of 2005 and for the upcoming 2012 edition.

Fortney has also been active in organized veterinary medicine. He served on the Kansas VMA executive Board and was the organization's president in 1997. Based on his leadership and marketing skills, Fortney received the KVMA Distinguished Service award in 1994 and was selected as the Kansas Veterinarian of the

Teaching Hospital faculty where he developed geriatric and pediatric expertise. During more than 25 years as a clinician in the Kansas State Veterinary Teaching Hospital, he served as head of small

Year the next year. In 2007, following his six-year tenure on the Western Veterinary Conference's Board of Directors, Fortney was elected as the organization's president. He has developed and coordinated the small animal scientific programming for the past seven conferences.

Continuing education is important to Fortney, and he looks forward to interacting with veterinarians and pet owners. Contact Fortney at 785-532-4605 or by email: wfortney@vet.ksu.edu .

Dr. Brian Lubbers has joined the Kansas State Veterinary Diagnostic Laboratory as the Director of the Microbiology Laboratory. Lubbers earned his D.V.M. degree from Kansas State University in 2002. After graduation, he worked in a private mixed animal (primarily dairy) practice in central California. He then spent 1 year in a private mixed practice in Iowa. In 2005, he returned to Kansas State University College of Veterinary Medicine as a clinical instructor – postgraduate trainee. In this role, he instructed senior veterinary students in the agricultural practices rotation and completed a Ph.D. in veterinary microbiology (pharmacology). Lubbers' doctoral research focused on the pharmacokinetics/pharmacodynamics of oxytetracycline. As a diagnostician, his interests are infectious diseases of production animals and antimicrobial susceptibility test interpretation. He enjoys connecting with the practitioners of Kansas, both on a case-by-case basis and through various outreach activities.

You can contact Lubbers by phone at 785-532-4012 or by e-mail at blubbers@vet.k-state.edu.



Dr. Brian Lubbers



Dr. Kelli Almes

Almes Joins KSVDL as Full-Time Pathologist

The K-State Veterinary Diagnostic Laboratory is pleased to announce the addition of Dr. Kelli Almes to its staff as an assistant professor of pathology. Almes is originally from Hope, Kan., and received her D.V. M. degree from K-State in 2005. She completed a three-year residency in pathology at K-State and is board certified by the American College of Veterinary Pathologists. Almes had been working part time for the diagnostic laboratory since October of 2008, so she will not be new to a lot of people. In addition to her duties as a pathologist, Almes is supervisor for the necropsy and receiving areas of the diagnostic laboratory.

do not wet the cattle's skin thoroughly. Also, the cattle need to have the freedom to stand under the sprinklers as needed and then move away to a dry area where evaporation will help cool their bodies.

Researchers at the University of Nebraska have developed a Temperature-Humidity Index that will help producers anticipate when heat stress will become a problem (see Livestock Weather Hazard Guide). When there is no daytime wind and/or night time temperatures do not drop below 75°, and conditions reach an index score of 75, producers should be on the alert for heat stress problems. When the index reaches 79, the danger point has been reached. When the index reaches 84, emergency conditions exist. If the index stays above 84 for 3 days in a row, death losses usually start to occur, especially if the wind suddenly stops blowing.

Panting scores probably give the best visual method to estimate the severity of heat stress on cattle: 80-120 breaths per minute = moderate; 120-160 = danger; and over 160 = emergency. If signs of moderate heat stress are seen, producers may have a very short time to provide a mechanism for cooling the cattle before the situation becomes life threatening.

Listen to or watch radio, television or electronic media programs that regularly present heat index information for people. When it is high for people, it is also high for cattle. Both people and cattle need to be taken into consideration.

Unexpected Deaths in Young Calves

*Jerome Nietfeld, D.V.M., Ph.D.
Veterinary Diagnostic Laboratory*

Spring is a wonderful time of year with everything coming out of winter hibernation and the world seeming to come to life again. It is also the time when most farmers and ranchers calve, and it is when we see increased numbers of lead poisoning cases. The typical case is one where multiple calves less than 3 to 4 months old die, but the cow herd remains normal.

Often the calves are simply found dead and have no postmortem lesions, or all that is found at necropsy are congested intestines and red lungs. It seems that the younger the calf the faster they die. Because the calves are not seen displaying signs of central nervous system (CNS) disease, it is easy to misdiagnose the cause of death as something like enterotoxemia, or acute pneumonia and not give lead toxicity a thought. Often the only hint that lead might be the problem is that multiple calves have died and there is no obvious cause.

Many calves likely display CNS signs before dying, but they are unseen by the owner. A case last week is typical.

Eleven 4 to 8 week-old calves died within 3 weeks. The first few were found dead, but the owner began watching the group more closely and noticed CNS signs, such as circling, ataxia, falling over and thrashing about, and nystagmus in several calves that subsequently died. All calves with CNS signs were dead within 12 hours and sometimes less than 1 hour of the first sighting of CNS signs. The source of the lead was felt to be an electric fencer battery that had been tipped over in the pasture spilling lead containing acid.

Lead should be kept in mind as a differential diagnosis for sudden or unexplained deaths of young calves for which nothing else is obvious. Even if the owner is positive that there is no source of exposure do not be too quick to rule out lead. In any case of accidental poisoning, if owner thought that there was something in the environment that could kill their calves, they would have removed it. The two best samples for diagnosis of acute lead toxicity are whole blood and kidney. There is a more complete discussion of this subject in the September 2005 Veterinary Quarterly available at: <http://www.vet.ksu.edu/features/VetQuarterly/KVQsum05.pdf>

Increased Blackleg Cases at K-State Lab This Past Year

*Jerome Nietfeld, D.V.M., Ph.D.
Veterinary Diagnostic Laboratory*

Blackleg most commonly affects spring-born calves in late summer and early fall. Occasionally cases appear in the winter, but in most years no cases are diagnosed after approximately the end of October. This past winter and early spring were unusual in that we had multiple cases of blackleg, all of which resulted in death of multiple calves. Several cases were from Kansas, but there were also cases from Nebraska, Iowa, and Missouri. In a few cases the calves were known to be unvaccinated, but for most cases we do not know the vaccination history. One case involved fall calves affected in April and the other cases were

in 9- to 12-month old spring-born calves. In two cases, the clinical signs were misinterpreted as central nervous system disease, but there was no brain pathology and, in the case necropsied at K-State, typical muscle lesions were found. In two other cases fibrinous pleuritis was found at necropsy and the calves were diagnosed as having pneumonia.

Histologically, there was pleuritis, but the lungs themselves were normal and samples of lung, heart and liver were FA positive for *Clostridium chauvoei*. In other cases the herd veterinarians suspected blackleg because of lameness, a short course of clinical disease, and postmortem lesions. Even if blackleg is not suspected and affected muscle is

not submitted, blackleg can often be diagnosed by FA staining other tissues. As cattle become agonal, they become anoxic and are usually bacteremic with *Cl. chauvoei* and at death most tissues contain organisms. Unlike most other *Clostridium* species, there is very little postmortem growth of *Cl. chauvoei* in tissues, and finding organisms in tissues is considered diagnostic. Often the terminal bacteremia results in fibrinous pleuritis. Another common terminal lesion is extensive hemorrhage of the epicardium and adjacent myocardium. Although blackleg is primarily a late summer and fall disease, keep it in mind in cases of unexpected deaths in calves throughout the year.

Beef Cattle Reproduction Meeting Set for Joplin, Mo.

Beef cattle producers from across the nation will go to Joplin, Mo., Aug. 31-Sept. 1, to learn more about producing high-quality beef. The basics include reproduction, management and genetics.

Although Joplin was hit by a tornado of historic size on May 22, the Holiday Inn Convention Center, the meeting site, was outside the storm path.

"We've learned a lot about breeding high-quality cattle, which bring premium prices, in recent years," said David Patterson, meeting host and University of Missouri Extension beef reproduction specialist. We are now able to make rapid strides toward improved quality through expanded use of fixed-time AI using semen from high accuracy sires.

The workshop, ARSBC, stands for "Applied Reproductive Strategies in Beef Cattle" and is held annually at various locations across the United States. The program is organized by the "Beef Reproduction Task Force", which includes reproductive physiologists from major land-grant universities.

"Our aim is to reach cow-calf and seedstock producers, the AI industry, veterinarians, and the entire allied beef support industry," he added. There will be 11.5 CEUs available for veterinarians who attend the program.

When Missouri hosted the program in 2006 at St. Joseph, nearly 300 attendees from across the U.S. participated in the two-day workshop. This time organizers plan for more.

The opening panel at the meeting will set the theme: "Using AI (artificial insemination) to Produce More High-Quality Beef." Speakers include Patterson of Columbia; Mike Kasten, beef producer from Millersville, Mo.; and Larry Corah, vice president of Certified Angus Beef,

Manhattan, Kan. Respectively, they represent the scientist, the farmer and the marketer of high-quality beef.

Examples of what may be accomplished through improvements in reproduction and genetics are evidenced by success of Missouri's Show-Me-Select Replacement Heifer program. "Producers have learned there are extra profits not only in replacement heifers, but also in the steer mates sent to commercial feedyards," Patterson said. "The steers, especially from the Show-Me-Select Tier Two program, have much higher performance in the feed yard and on the rail. Tier Two steers hit the premium grids." The idea behind the Tier Two program involves expanded use of fixed-time AI in Missouri's cow herds using semen from high accuracy sires.

Packing plants, using the grids, pay bonuses for calves that attain higher USDA quality grades. Premiums can amount to as much as \$150 per animal or in many cases even more.

The reproduction research has until now focused on developing protocols for fixed-time artificial insemination of cows and heifers. This allows breeding all cows and heifers in a herd on one day. This saves labor and shortens the calving season. The result is more uniform calves at weaning time.

"But we've found many more benefits," Patterson said. "With AI, producers can use the top-rated bulls in their respective breed to gain more rapid improvement in genetics." Now sires with thousands of offspring have proven accuracy in their ability to improve the herds.

"There are more research achievements coming," he added. "Jerry Taylor, MU researcher who helped

decipher the bovine genome, will tell how to use what is known about the genetic map to produce more high-quality beef."

The main reason to do any of this is to make more money from the cowherd. MU economists Scott Brown of MU FAPRI and Joe Parcell from agricultural and applied economics will review the financial prospects from the herd to domestic and global implications related to production of high quality beef.

On the evening of Aug. 31, the group will visit the Joplin Regional Stockyards, Carthage, Mo., to see working demonstrations and hear a panel involved with the Show-Me-Select Replacement Heifer Program. The local cattlemen's association will serve a steak dinner.

The Beef Reproduction Task Force together with the national Beef Reproduction Leadership Team work to promote wider adoption of reproductive technologies among cow-calf producers; educate cow-calf producers in management considerations that will increase the likelihood of successful AI breeding; and educate producers in marketing options to capture benefits that result from use of improved reproductive technologies.

The group's mission is to optimize the productivity and improve the profitability of cow-calf operations by facilitating the adoption of cost-effective, applied reproductive technologies. The goal is to educate beef cattle producers on sustainable reproductive management systems to maintain U.S. leadership and competitiveness in the world beef market".

Registration costs and program details are on the MU Conference Office website at <http://muconf.missouri.edu/arsbc/>.

Fifth Annual Kansas State Beef Conference

Title: Managing in a Transitioning Industry

Date: August 16, 2011

Live Location:
123 Weber Hall, Kansas State University

Webcast Locations:
Butler County Community Building
Pratt County Fairgrounds
Wakeeney Public Library

Agenda:

Welcome: Dr. Ken Odde	9:00 – 9:05
The new reality: volatility factors and the cattle cycle – Dr. Glynn Tonsor	9:05 – 9:45
Ranch management in an era of volatility – Dr. Justin Waggoner	9:45 – 10:30
Break	10:30 – 10:45
Does high input always mean high output? – Dr. Bob Weaber	10:45 – 11:30
Adapting to change at the ranch level – Virgil Huseman	11:30 – 12:15
LUNCH	
Anthelmintic resistance in beef cattle – Dr. Joe Dedrickson	1:00 – 1:30
Implant strategies for forage-based programs – Dr. Chris Reinhardt	1:30 – 2:15
Break	2:15 – 2:45
Sell cows, build herds, or get out? – Dr. Kevin Dhuyvetter	2:45 – 3:30
Emerging social ethics for animals and the beef industry – Dr. Bernie Rollins	3:30 – 5:00

Continuing Education

August 19, 2011

5th Annual Conference for Care of Llamas and Alpacas (focused for veterinarians and breeders)

September 24, 2011

SCAAEP Fall Equine Conference: A Focus on Reproduction

October 14, 2011

Ophthalmology Conference and Wet Lab

November 5-6, 2011

Annual Equine Reproduction Conference for Horse Breeders and Farm Personnel: From Egg to Foal

December 9, 2011

Annual Small Ruminant Conference

For the most complete, up-to-date conference information visit our website at: www.vet.ksu.edu and click on Continuing Education, or contact: Megan Kilgore at 785-532-4528 or meganlk@vet.ksu.edu

Upcoming Events

August 16, 2011

K-State Beef Conference, Manhattan, Kan.



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