CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Animal Health Branch News

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Mission Statement

The Animal Health Branch (AHB) is California's organized, professional veterinary medical unit that protects livestock populations, consumers, and the State's economy from catastrophic animal diseases and other health or agricultural problems.

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Tuberculosis Update Fresno County Dairy May 2008

By Dr. Anita Edmondson

The California Department of Food and Agriculture (CDFA) and the United States Department of Agriculture (USDA) are once again spearheading an effort to eradicate bovine tuberculosis (TB) from California. The USDA declared California free of bovine TB in April 2005. However, in December 2007 bovine TB was found in a culled dairy cow through slaughter surveillance. The National Veterinary Service Laboratory (NVSL) later confirmed that the cow was infected with *Mycobacterium bovis* (M. bovis). The infected cow was traced to a large dairy herd in Fresno County that was confirmed as affected with bovine TB in January 2008. The investigation of this affected herd led to a cow in another herd that has lesions suggestive of TB. Samples from this cow have been submitted to NVSL and culture results are expected in June 2008.

The magnitude and duration of the response to the detection of TB in California is significant. A dedicated incident command post has been established in Fresno and personnel from each AHB office and USDA personnel from all over the U.S. have been mobilized. The goals of this TB emergency response operation are to determine the extent of disease, eradicate the disease by destroying infected and potentially infected cattle, compensate owners for cattle destroyed, prevent human infection, find the source of infection, prevent reinfection, and maintain California's TB-Free status. Through the end of April 2008, response personnel have tested more than 115,000 cattle in 93 herds. To support this effort and similar efforts in Michigan and Minnesota, USDA has made $16.8 million in emer-

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A Review of Non-Ambulatory Livestock Laws

By Dr. Richard Breitmeyer
State Veterinarian

The events filmed at the Hallmark slaughter facility were tragic and a reminder to all of us to continue proactive support for proper animal handling. Like the vast majority of those that work with livestock, the California Department of Food and Agriculture (CDFA) believes that animals should be handled humanely, strongly supports adherence to state and federal laws pertaining to handling of animals and notes the special care that must be given to those animals that are down or disabled (non-ambulatory). To help clarify legal obligations related to non-ambulatory livestock, a summary of the relevant federal and state laws used in California may be of value to review.

The **California Penal Code Section 599 (f)** applies to livestock auctions, market agencies, dealers, stockyards and slaughter facilities that are exempt from USDA inspection. This Code section states that specified livestock facilities cannot buy, sell or receive non-ambulatory animals and must immediately and humanly euthanize a non-ambulatory animal or remove it from the premises. Movement of non-ambulatory animals must only be via a sling, stone boat, or other sled-like or wheeled conveyance and without dragging or push-

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gency funds available.

A robust response is necessary because TB is a disease that can be transmitted to humans under specific conditions and has significant health impacts on cattle. If TB is detected in two or more herds in a 48-month period, or if an affected herd is not fully investigated and depopulated, the USDA will downgrade California's TB-Free status to a Modified Accredited Advanced State. Such a downgrade imposes specific and sometimes costly movement requirements on the State's cattle industry and may result in negative public perception.

Non-Ambulatory - *Continued*

ing with equipment. California law enforcement agencies are responsible for enforcement of this law and infractions of the law are a criminal offense.

The **Title 9, Code of Federal Regulations (9 CFR) Sections 309 and 313** apply to slaughter plants that are licensed and inspected by the United States Department of Agriculture (USDA). This federal law states that slaughter facilities may not slaughter non-ambulatory animals since non-ambulatory cattle are considered "unfit for human food". Animals must be handled using minimal force, causing minimal excitement and discomfort to the animals and disabled animals are to be moved to a covered pen separate from ambulatory animals. Movement of non-ambulatory animals must only be via a sling, stone boat, or other sled-like or wheeled conveyance and without dragging or pushing with equipment. USDA is responsible for enforcement of this federal law. Infractions may result in plant closure until corrections are made.

The **California Code of Regulations (3 CCR) Sections 903 and 906** has application to slaughter plants that are exempt from USDA inspection. These regulations incorporate Federal Regulations (9 CFR Sections 309 and 313) into the California Code of Regulations and require slaughter facilities inspected by CDFA to meet the same standards as those outlined for federally inspected facilities. This state law prohibits Custom Livestock Slaughterhouses from receiving non-ambulatory livestock. CDFA is responsible for enforcement of this law and infractions of the law may result in plant closure until corrections are made.

Because of the clear restrictions on handling non-ambulatory animals once they are at a slaughter facility, market or auction, ***CDFA strongly encourages producers to evaluate the ability of any animal to remain ambulatory prior to shipment off their premises.*** Ideally, producers should remove livestock from the farm or ranch before they become disabled. Appropriate and timely veterinary recommendations should be made for humane animal disposition decisions prior to an animal becoming non-ambulatory. We encourage veterinarians to provide guidance to their clients on humane handling of disabled animals, assist clients with the development of farm euthanasia plans and train clients in humane euthanasia techniques for use when needed.

For information and guidelines on humane handling of livestock, see the Dairy Welfare Evaluation Guide on the CA Dairy Quality Assurance Program website at www.cdqap.org and the CA Beef Council Beef Quality Assurance website at www.calbeef.org.

Cattle Fever Ticks A Formidable Foe

By Dr. Ellen Wilson

California history documents the greatest scourge of disease among California cattle herds more than a century ago was cattle fever. Bovine Babesiosis, known as cattle fever, is an intracellular protozoal disease, caused by *Babesia bigemina* or *Babesia bovis.* Several species of "fever ticks", including *Rhipicephalus microplus* and *Rhipicephalus annulatus* (formerly *Boophilus spp*), carry and transmit the disease. These protozoan species and their vector ticks once occurred in large areas of the United States, including California, in the late 1800s. Extraordinary efforts over many years resulted in the eradication of these pests from CA in 1917, and from the US in 1943. Bovine babesiosis is a foreign animal disease to the US. A permanent quarantine zone of 852 square miles through eight south Texas counties has acted as an effective disease containment strategy since 1938. Continual reinfestation of this area requires ongoing efforts of the USDA Cattle Fever Tick Eradication Program.

The cattle fever and the tick vectors plague Mexico and countries throughout the tropical and subtropical areas of the Western Hemisphere. In these areas, young calves exposed to babesia may survive the disease, develop immunity, and become inapparent carriers of the organism. If the ticks capable of transmitting the disease have access to such Babesia-infected animals, the tiny pest becomes a grave threat to naïve cattle. The valuable US cattle population is naïve to this disease and lacks immunity, so introduction of the disease into the US would have devastating consequences to our livestock and economy.

Fortunately, the lack of the required fever tick vector in the US impedes the transmission of the bovine babesiosis. To protect US livestock, all incoming Mexican cattle must be individually inspected and certified free of ticks at USDA APHIS approved facilities on the Mexican side of the border. Cattle found with ticks are dipped in acaricides, quarantined and reinspected prior to entry. Stray cattle, wildlife movements and illegal cattle entry confound previously effective fever tick control measures.

Naïve Cattle + Fever Tick + Babesia = Cattle Tick Fever

High fever	Weakness	Depression
Hematuria	Dyspnea	Dry Cough
Splenomegaly	Jaundice	**Usually Fatal**

A recent increase in fever tick infestations in Texas is cause for concern and aggressive action. The increas-

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Cattle Fever Ticks - *Continued*

ing number of fever tick infested areas in and outside of the permanent Texas quarantine zone has prompted recent imposition of additional temporary quarantines. Current fever tick control challenges are the ever-increasing tick pressure from Mexico, fever tick resistance to previously effective treatment, wildlife carriers and insufficient resources to address these problems. On March 19, 2008, the USDA APHIS made $5.2 million in emergency funding available for additional personnel, surveillance, training and treatments to control outbreaks of cattle fever ticks outside the permanent quarantine zone. Enhanced activities are essential to ensure early detection and containment of these fever tick outbreaks. The fever tick is a formidable foe and the battle to prevent the establishment of this foreign animal disease vector in the US wages on.

A Survey Evaluation of California Beef Producers' Best Management Practices and Perceptions of a National NAIS

By Patrick Doyle, Ph.D.
College of Agriculture, CSU, Chico 95929

Recent food safety scares, international trade barriers, and animal health concerns, such as bovine spongiform encephalopathy (BSE), are major driving forces behind policies and efforts in food animal and food product tracking and source verification[2]. Domestic and international consumers are asking more about their food, where it came from, how it was produced, and how safe it is. Producer perceptions, knowledge of, and commitment to such programs as the proposed, voluntary National Animal Identification System (NAIS) and the beef industry's Beef Quality Assurance (BQA) producer programs will determine the future success of the nation's beef industry. With funding from CDFA made possible through USDA's cooperative NAIS agreement, California's beef producers were surveyed regarding perceptions of NAIS and current Best Management Practices (BMP) employed in the production of beef.

Survey data were collected over a period of two years at California Cattlemen's Association's Annual Convention, various field days, and using an online survey tool. Data included 13 purebred beef operations and 45 commercial beef operations of varying herd size and land base, primarily from northern California.

Approximately 90% of beef producers surveyed reported following BQA guidelines; however, only 57% have attended a BQA certification. Nearly all respondents (98%) vaccinate cattle using subcutaneous methods when available. Furthermore, 72% reported consulting with their veterinarian in developing a whole herd health program. Other practices common among survey participants reflecting best management practices include deworming cattle and supplementing cowherd with minerals. Interestingly, production practices surrounding preventative animal health and disease management may require heightened emphasis. Approximately half of all producers surveyed precondition calves (55%), quarantine livestock (57%), control visitor access (59%), or control wildlife from contaminating water and feed (50%). Even fewer clean equipment between feeding and cleaning activities (43%). Promising is the number that reported changing needles and (or) palpation sleeves between animals (61%).

Regarding NAIS, 72% believe its implementation is a live animal traceability program. A majority of beef producers believe being notified of a contagious disease outbreak in the area is important and is an important aspect of NAIS. As with any technology or new production practice, economic incentive is often required before adoption occurs. While 41% reported being undecided as to the necessity of an animal identification program for the economic viability of animal agriculture, 69% of beef producers do believe NAIS can increase marketing opportunities, including those abroad. Of note in the

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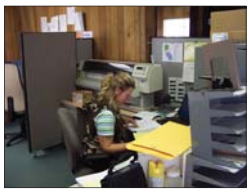
Staff Biographies:



Dr. Clementa Frederiksen joined CDFA as a Veterinary Medical Officer III in the Tulare District in February 2008 and is quickly acclimating to the District work and programs. Dr. Frederiksen obtained a B.S. in Animal Physiology from UC Davis and a DVM from UC Davis School of Veterinary Medicine. For the first 10 years of her professional career, Dr. Frederiksen practiced small animal medicine and surgery in the San Diego area. For two years, Clementa and her entire family lived in Central Asia working for the Ala Too Ashari Community Development Organization in Kyrgyzstan. Her work involved evaluating the status of veterinary health systems and animal health needs for local communities. Epidemiology of zoonotic diseases is a central focus of her professional interest. In her free time, reading, hiking and camping with her husband, Mark, and their four children are among her favorite things to do. She is also known to play a mean game of roller hockey.

Have you ever called the Tulare District Office? If so, you may have spoken to Office Technician, Karen Jones. Born and raised in Tulare, she is a true Tulare native. Karen began her state service in 1992 with the California Employment Development Department and joined the Tulare District staff in October 2004. She is a valued member of the District team, the one who keeps the office running smoothly. Three children and two grandchildren are an important part of her busy life. In her free time, Karen enjoys gardening and reading.

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Survey Evaluation - *Continued*

study is the fact that while many report the value of NAIS to improve market opportunities, including exports, few of those surveyed participate in a Processed Verified Program or Quality Systems Assessment program (22% and 12%, respectively).

Many of California beef producers appear to follow BQA guidelines in many areas; however, production practices surrounding preventative animal health and disease management may require heightened emphasis in future CDFA's and industry partners' grassroots educational efforts. Furthermore, CDFA's message regarding NAIS appears to be reaching beef producers through California's outreach programs. While it appears that California beef producers see the value of NAIS, cost, confidentiality of information, simplicity, and data security and control topped producer lists of concerns regarding the implementation of NAIS. All will need to be addressed in future educational efforts involving NAIS.

[1] For more information or copy of full report, please contact Dr. Patrick Doyle at 530/898-6586 or email pdoyle@csuchico.edu.

[2] Smith, G. C., J. D. Tatum, K. E. Belk, J. A. Scanga, T. Grandin, and J. N. Sofos. 2005. Traceability from a US perspective. Meat Science 71:174-193.

Worth Noting . . .

The Bovine Tuberculosis Status of **Minnesota** was recently reclassified to Modified Accredited (MA), which affects the interstate movement of cattle and bison moving from Minnesota and increases required testing.

A new animal health rule in **Arizona**, effective 07/01/09, will require imported dairy cattle to be identified with an official eartag that identifies the herd of birth. If the veterinarian writing the health paper does not know whether the eartag identifies the birth herd or can be readily linked to the birth herd, then the animal will not meet AZ entry requirements and an entry permit will not be issued.

Effective 05/01/08, **California** requires Certificates of Veterinary Inspection for poultry entering the state from non-National Poultry Improvement Plan flocks. (CA Code of Regulations, Title 3 Section 821.0 – 821.5). California entry permits may also be required as determined by the State Veterinarian.

Dr. Dan Rolfe (Modesto District) recently completed USDA Foreign Animal Disease Diagnostician (FADD) Training, Plum Island, New York.

Vidal Border Inspection Station

Livestock & Poultry Entry Through CA Border Stations 2007

Swine	2,563,675
Beef Cattle	785,909
Sheep	261,558
Goats	65,104
Dairy Cattle	43,957
Horses	19,894
Poultry	12,776,677
Hatching Eggs	1,579,214 cases