



Animal Industry Division Newsletter

March 2012

The animal health, well-being, and productivity of the livestock industry in Colorado greatly benefits from the work that you do as veterinarians and animal health professionals. Thank you for your work and our shared collaboration. We are always open to your input and feedback on our animal health & disease control programs or any of our other services.

*Thanks,
State Veterinarian's Office of Colorado*

Summary of Items:

- ❑ **Welcome to our New Staff Member:** Animal Industry Division of the Colorado Department of Agriculture has added a new Administrative Assistant to our staff. Welcome Don Haflich! [Click to read more](#)
- ❑ **Veterinary Medical Loan Repayment Program:** USDA's Veterinary Medicine Loan Repayment Program (VMLRP) helps qualified veterinarians offset a significant portion of the debt incurred while pursuing their veterinary medicine degrees in return for their service in certain high-priority veterinary shortage areas. The ultimate goal is to help those veterinarians who are interested in food animal practice, have educational debt, and want to practice in the state of Colorado. [Click to read more](#)
- ❑ **Veterinary Accreditation Modules Qualify for CE Credits:** The USDA APHIS Accreditation Program now has nine supplemental training modules available for Accredited Veterinarians to complete on-line. The Colorado Board of Veterinary Medicine has approved six of the modules to be used toward license renewal. [Click to read more](#)
- ❑ **Annual Foreign Animal Disease (FAD) Course at CSU:** This year's FAD course will be held on July 23rd – 27th, 2012, it's not too early to get signed up, contact Nick Striegel or another staff member to get on the list. It's a great opportunity as there will be world-class speakers and it qualifies for CE Credits but space is limited! In addition to covering FADs, the course will discuss topics such as veterinary emergency preparedness & response, veterinary diagnostics & pathology, and how a FAD could affect the livestock industry. Also, there will be discussions on the new national strategies for a response to a foot-and-mouth disease (FMD) outbreak in the U.S. and other interactive panel discussions. [Click to read more](#)



- ❑ **Footvax – Is there a need for the vaccine?:** If you perceive a need for the sheep foot rot vaccine, Footvax, for your clients or your flocks, please contact our office. The manufacturer of the vaccine would like to gather input on the demand for the product and estimate how many doses of the vaccine to produce. [Click to read more](#)
- ❑ **ELDU Prohibition on Use of Cephalosporins:** Excerpt from AVMA: FDA press release announces a revised Order of Prohibition on Extra Label Drug Use of Cephalosporins in the major food producing animal species – cattle, swine, chickens, and turkeys. If you're a veterinarian working with livestock, you're probably wondering how this affects you. This new FDA order is a modification of a 2008 order that was revoked. The original order prohibited all extralabel use of cephalosporins in food-producing animals. This new order achieves a better balance of animal health and public health. [Click to read more](#)
- ❑ **International Health Certificates:** Sometimes international health certificates present some challenges. It is not always easy to figure out what is required by the different countries for your client to export animals and there are many details that must be fulfilled in order to have an official health certificate issued. The AVIC office staff has developed example certificates for many of the common countries to which U.S. animals are exported. To see the helpful aid that has been developed by the AVIC office...[Click to read more](#)
- ❑ **Use of the Henneke Body Condition Scoring System in Equine Neglect Investigations:** The Colorado Department of Agriculture Bureau of Animal Protection serves a support role for local agencies in investigating animal neglect and cruelty. It is often necessary to coordinate veterinary examination and care in these situations; the support and participation of local practitioners cannot be underestimated. One item we would like to remind veterinarians about is body condition scoring. As a tool it is very useful to investigators and prosecutors because there are objective scales available for many species. The most frequently used system is the Henneke system... [Click to read more](#)
- ❑ **Director, Rocky Ford Branch of CSU Veterinary Diagnostic Laboratory:** The Colorado State University Veterinary Diagnostic Laboratory, Department of Microbiology, Immunology and Pathology, College of Veterinary Medicine and Biomedical Sciences is seeking applicants for a non-tenure track special appointment faculty position at the rank of Assistant or Associate Professor to serve as the Director of the branch laboratory in Rocky Ford, Colorado. [Click to read more](#)
- ❑ **New Tagging Option for Brucellosis Vaccinates:** There is a new brucellosis vaccination tag option for those veterinarians who would like to use a RFID ear tag. The Rocky Mountain Regional Animal Health Laboratory (RMRAHL) has in stock official 840-RFID ear tags that can be used as the official brucellosis tag. They are Allflex tags, orange in color, cost \$2.00 each, and come in boxes of 50 tags per box. Also included in the article is a FAQ on the new tags. [Click to read more](#)
- ❑ **TB and the Caudal Fold Test:** Tuberculosis (TB) is a significant disease among production animals, especially cattle. With continued risk for tuberculosis entering our herds, the state of



Colorado and USDA rely on accredited veterinarians in the field to conduct the Caudal Fold Test (CFT) regularly and with accuracy. Regular screening to detect *M. bovis* using the Caudal Fold Test is an important step in the continued safety of Colorado's milk and beef supply. [Click to read more](#)

- ❑ **New Emerging Disease in Europe and UK - Schmallenburg Virus; Information from the OIE (World Organization for Animal Health):** Schmallenburg virus was discovered recently (November 2011) and epidemiological, immunological and microbiological investigations are still on-going in several European countries. The information from OIE describes the epidemiological observations and research done during the first months following its discovery, and data extrapolated from genetically similar viruses of the same genus and serogroup. [Click to read more](#)
- ❑ **State Veterinarian's Office Staff Contact Information:** [Click for staff directory](#)

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New Staff Members

Animal Industry Division of Colorado Department of Agriculture has added a new staff member, Don Haflich who is an important part of the Traceability Team within the office. He is married to April Haflich, he has a 2 year old daughter named Makayla Mae and Josiah Anthony will be joining the world any day now. He's finding out that traceability has many different aspects to it and he says, "the most interesting thing about working with CDA is the amount of responsibility there is in the handling of livestock and those things associated with tracking them."

Don's role is to improve our animal disease traceability capabilities by capturing data from paper health certificates and enter it into the Division's animal health information management system. In this way, our livestock movement data will be in a searchable format to help us during disease outbreaks and protecting the health of Colorado livestock. There are more than 150,000 paper health certificates issued for livestock moving into and out of Colorado each year. That's a lot of paper and data, so Don has a big job but he has a little help from his friends in the office. As more veterinarians become accustomed to using electronic methods to issue health certificates or certificates of veterinary inspection (CVIs), it will reduce the amount of data entry that is required to have the appropriate disease traceability capabilities. Electronic CVIs will also give us real-time data on livestock movement and provide greater accuracy and legibility of information on the CVIs.

Veterinary Medical Loan Repayment Program (VMLRP)

USDA's Veterinary Medicine Loan Repayment Program (VMLRP) helps qualified veterinarians offset a significant portion of the debt incurred while pursuing their veterinary medicine degrees in return for their service in certain high-priority veterinary shortage areas. The VMLRP shortage nominations for 2012 have been submitted; this was accomplished through the VMLRP Committee's efforts in developing a strategy for the shortage area nominations. We hope that our planning and work will help those veterinarians who apply for a shortage area to have a better chance of getting approved into the program. Our ultimate goal is to help those veterinarians who are interested in food animal practice,



have educational debt, and want to practice in the state of Colorado. For more information on the program and 2011 shortage areas please call our office at 303.239.4171 or more information can be found at the following website:

http://www.nifa.usda.gov/nea/animals/in_focus/vmlrp_11/vmlrp_shortage_situation_usmap.html

In a recent issue of the *Journal of the American Veterinary Medical Association*, an article on the VMLRP was written, here is a summary of the article that was in the *USAHA News Alerts*:

Loan repayment program promotes food animal practice

By Katie Burns

JAVMA News

March 15, 2012

Dr. Britt E. Stubblefield started a large animal practice in rural Colorado last year. Dr. Dina J. Scotto is starting a food animal practice in Rhode Island this year. Also in rural Colorado, Dr. Shane F. Porter is an associate veterinarian paying down his educational debt and looking toward someday becoming a practice owner himself.



Each of them owes thanks to the fledgling federal Veterinary Medicine Loan Repayment Program.

The VMLRP has since fall 2010 provided grants to these veterinarians and more than a hundred other food animal practitioners, mixed animal practitioners in rural areas, and veterinarians in public practice. The program repays part of veterinarians' student loans in return for work in shortage situations.

During the first round of the VMLRP, more than 50 veterinarians signed contracts with the Department of Agriculture's National Institute of Food and Agriculture to participate in the program. On Feb. 1, NIFA announced the second round of grants, with nearly 80 veterinarians signing contracts.



In spring 2011, a committee of the American Association of Bovine Practitioners concluded that efforts to increase interest in rural practice have been successful, and the remaining underserved areas might not be able to sustain veterinary practices. Gina Luke of the AVMA Governmental Relations Division, who advocates for the VMLRP on behalf of the AVMA, countered that many shortage situations in rural areas remain difficult but possible to fill.

Full text: <http://www.avma.org/onlnews/javma/mar12/120315b.asp>

Accreditation Modules Qualify for Veterinary CE Credits

The USDA APHIS Accreditation Program now has nine supplemental training modules available for Accredited Veterinarians to complete on-line. Companion animal veterinarians must complete three modules (Category I) and mixed animal, large animal, zoo, and avian veterinarians must complete six modules (Category II) prior to renewing their accreditation every three years.

To register for these modules, [click here](#) or copy and paste this link into your internet browser:
http://www.aphis.usda.gov/animal_health/vet_accreditation/training_modules.shtml

You must have your National Accreditation Number (NAN) available to print the certificate of completion at the end of each module. If you do not know your NAN, please contact the USDA APHIS VS Area Office in the state you are practicing. Colorado's office number is 303.231.5385. If you have any questions/problems accessing the modules, please contact your local field [Veterinary Medical Officer \(VMO\)](#).

Keep the certificates of completion. When your accreditation renewal date approaches, fill out VS Form 1-36A, including the information regarding the completed modules, and then submit the 1-36A to the CO Area Office. You do not need to submit the certificates, but keep them in the event of an audit.

The Colorado Board of Veterinary Medicine has approved six of the modules to be used toward license renewal. CO USDA APHIS VS will request approval for all of the modules, however, it is the prerogative of the Board to approve or refuse each one individually. CO USDA APHIS VS will only present modules for approval on a quarterly basis. The following six modules are the only ones currently approved: Modules 1, 2, 5, 6, 7, and 21.

REMINDER! Colorado veterinary license renewals are due this fall. If your license expires, so does your accreditation (at least in the state with the expired license)!

Questions? Feel free to call the Area Office at 303.231.5385, Dr. Richanne Lomkin at 303.888.9264, or your local field VMO.



Annual Foreign Animal Disease (FAD) Training Course at CSU

The funding for the course is through a USDA APHIS Cooperative Agreement that delivers funds to the Colorado Department of Agriculture; CSU, Animal Population Health Institute is then contracted to conduct the training course. For the past seven years, Dr. Tony Knight has coordinated this excellent CSU FAD Training Course. Since Dr. Knight is set to retire this Spring, Dr. Dave Van Metre has now taken over the helm of planning, coordinating, and implementing Foreign Animal Disease (FAD) Training Course. Dr. Van Metre recently wrote:

“The course covers all of the major infectious diseases of livestock that are presently foreign to the U.S. but that could dramatically impact the nation’s livestock industries, were they to be intentionally or accidentally introduced into this country. Veterinarians from the USDA – including Plum Island, veterinary faculty, the CO State Veterinarian and Assistant State Veterinarian, and various lay experts comprise the list of instructors for the course. Included in the course are two simulation exercises for donning and doffing personal protective equipment (PPE) and safely obtaining diagnostic samples in mock disease outbreak scenarios.

In addition, the course will cover veterinary emergency preparedness & response, veterinary diagnostics & pathology, and how a FAD could affect the livestock industry. Also, the course will include discussions on the new national strategies for a response to a foot-and-mouth disease (FMD) outbreak in the U.S. and other interactive panel discussions. The course will be held on July 23rd – 27th, 2012 on the CSU campus. The course is directed primarily toward practicing veterinarians in Colorado and surrounding states, with a few lay personnel (e.g. livestock extension agents) included as well. If you are interested in attending this year’s course, call Nick Striegel at 303-239-4161 or nick.striegel@ag.state.co.us to get a spot reserved for next summer’s course.

Footvax Availability



Please read the following excerpt from an article written by William Shulaw, Ohio State Extension Veterinarian. After reading, please notify the State Veterinarian’s Office if you perceive a need for the foot rot vaccine, Footvax, for your clients or your flocks. As described below, the manufacturer of the vaccine would like to gather input on the demand for the product and estimate how many doses of the vaccine to produce.

“Many of you know that Footvax® has not been available in the USA for several months now. The American Sheep Industry Association (ASI) and the California Wool Growers Association (CWGA) have had several discussions with the USDA and with the vaccine manufacturer (Intervet/Schering-Plough/Merck) over the past year encouraging them to resume licensed sales. Although no official licensing or approval has been granted at this writing, it appears that USDA may grant the



manufacturer the ability to import the product into the US under special permit for limited distribution and research without renewal of their regular license.

The vaccine manufacturer and USDA have sought a central US contact to collect producer and veterinary orders. At this time, the CWGA is willing to provide this service and will work with USDA and the vaccine company to help import the amount of product needed by US producers and veterinarians. The cost per dose has not been finalized. The time frame for importation is not yet set either, but it is hoped that it could occur within the next couple of months. To facilitate this process, the company would like to have an idea of how many doses might be requested. If you are interested in ordering the Footvax® product, please email lesa@woolgrowers.org or call 916-444-8122 and let the CWGA know the number of doses that you would like to order along with your name, mailing address, phone number and email address. It may be well for you to contact your clients who may have an interest in order to help get an accurate accounting of potential need. The CWGA will prepare a master list of interested people. Once confirmation is received from USDA that the product can be imported for US use, those who requested vaccine will be notified. The distribution channels are not yet clearly determined. As details become available, requestors will be contacted to confirm what entity within each state can provide the product. It appears from initial discussions that individual state veterinarians will need to apply for permits in order to allow distribution within their states. These permits may carry some product usage and reporting responsibilities with them. It is assumed that the company will be contacting state veterinarians for the permitting process, but it may be well to contact your state veterinarian to alert them of the issue and your, and your clients', anticipated needs.

The above text was prepared with the assistance of ASI and is greatly appreciated. I have not been part of the discussions regarding this issue and do not know the reasons the company has decided not to seek re-licensure of the product in the US. But I do believe that this issue is part of the ongoing larger discussion about maintenance of infrastructure in the sheep industry and keeping numbers up. The Minor Use Minor Species legislation of a few years ago, for example, has helped reduce the cost of getting a therapeutic product available for sheep and goats, but the process still requires a company get on board with a product and "shepherd" it through. Likewise, companies have to be committed and work with USDA/APHIS Center for Veterinary Biologics to get biologics licensed. They won't do this unless they perceive they will be financially rewarded. I truly believe our ability to access new products in the future depends on our ability to maintain a strong, vibrant, profitable, and enthusiastic industry."

FDA Issues More Targeted ELDU Prohibition on Cephalosporins

On January 4th, 2012, Dr. Christine Hoang, Assistant Director, Scientific Activities Division, AVMA, wrote the following post on the AVMA website concerning FDA's revised prohibition on extra-label drug use of cephalosporins: <http://atwork.avma.org/2012/01/04/fda-issues-more-targeted-eldu-prohibition-on-cephalosporins/>

In today's news, an FDA press release announces a revised Order of Prohibition on Extra Label Drug Use of Cephalosporins in the major food producing animal species – cattle, swine, chickens, and



turkeys. If you're a veterinarian working with livestock, you're probably wondering how this affects you.

This new FDA order is a modification of a 2008 order that was revoked. The original order prohibited all extralabel use of cephalosporins in food-producing animals. This new order achieves a better balance of animal health and public health.

According to the order, the following extralabel uses are specifically prohibited:

- *Using cephalosporin drugs at unapproved dose levels, frequencies, durations, or routes of administration;*
- *Using cephalosporin drugs in cattle, swine, chickens or turkeys that are not approved for use in that species (e.g., cephalosporin drugs approved for use in humans or companion animals);*
- *Using cephalosporin drugs for disease prevention.*

The following extralabel uses are not prohibited by this order, but veterinarians must still follow the regulations outlined under 21 CFR Part 530 for the Animal Medicinal Drug Use Clarification Act (AMDUCA):

- *The order does not limit the use of cephapirin, an older cephalosporin drug that is not believed by FDA to contribute significantly to antimicrobial resistance.*
- *Veterinarians will still be able to use or prescribe cephalosporins for limited extra-label use in cattle, swine, chickens or turkeys as long as they follow the dose, frequency, duration, and route of administration that is on the label.*
- *Veterinarians may also use or prescribe cephalosporins for extralabel uses in minor species of food-producing animals such as ducks or rabbits.*

The AVMA responded to the original order of prohibition in 2008. We are pleased to see that the FDA has thoughtfully reviewed the many substantive comments received from the stakeholders and that the revised Order of Prohibition is more consistent with AVMA policy.

International Health Certificates

Sometimes international health certificates present some challenges. It is not always easy to figure out what is required by the different countries for your client to export animals to that country and there are many details that must be fulfilled in order to have an official health certificate issued.

The federal AVIC (Area Veterinarian in Charge) Office in Colorado that has the authority in these issues has developed some very useful aids to help you accomplish getting the international health certificates issued. The AVIC office staff has developed example certificates for many of the common countries to which U.S. animals are exported. There is one example shown below. When you have the need to issue an international health certificate, call their office (303-231-5385) and ask Gail to fax you the information / sample certificate for that country.



VS FORM 7001 IS NOT REQUIRED

**VETERINÄRBESCHEINIGUNG
FÜR NICHT GEWERBLICHE VERBRINGUNGEN VON HEIMTIEREN (HUNDE, KATZEN UND
FRETTECHEN) IN DIE
EUROPÄISCHE GEMEINSCHAFT**

(Verordnung (EG) Nr. 998/2003)
VETERINARY CERTIFICATE FOR DOMESTIC DOGS, CATS AND FERRETS ENTERING THE
EUROPEAN COMMUNITY FOR NON-COMMERCIAL MOVEMENTS (Regulation (EC) No 998/2003)

VERSANDLAND des Tieres COUNTRY of dispatch of the animal:

United States of America

Laufende Nummer der Bescheinigung Serial Number of the Certificate:

LEAVE BLANK – ASSIGNED BY USDA

**I. EIGENTÜMER DES TIERES/FÜR DAS TIER VERANTWORTLICHE BEGLEITPERSON
OWNER/RESPONSIBLE PERSON ACCOMPANYING THE ANIMAL**

Vorname First Name:	
Anschrift Address:	LIST THE COMPLETE NAME, ADDRESS, COUNTRY AND TELEPHONE NUMBER
Postleitzahl Postcode:	
Land Country:	Telefon-Nr. Telephone:

II. BESCHREIBUNG

Art Species:	INFORMATION <u>MUST</u> MATCH RABIES CERTIFICATE
Geschlecht Sex:	(DATE FORMAT: MM/DD/YYYY)
Geburtsdatum Date of Birth:	

III. ANGABEN

Mikrochip-Nr. Microchip Number:	MICROCHIP, LOCATION OF MICROCHIP AND IMPANT DATE OF
Implantations-Implantation:	MICROCHIP (DATE FORMAT: MM/DD/YYYY)
Tätowierungs-Tattoo:	TATTOOS ARE NO LONGER EXCEPTED AS OFFICIAL ID

IV. TOLLWUT

Hesteller Manufacturer:	INFORMATION <u>MUST</u> MATCH RABIES CERTIFICATE; PROVIDE RV CERT FOR
Chargen-Batch Number:	LISTED VACCINATION (WITH INK SIGNATURE AND MICROCHIP INFORMATION)
	(DATE FORMAT: MM/DD/YYYY)

V. SEROLOGISCHE TOLLWUTUNTERSUCHUNG (soweit erforderlich) RABIES SEROLOGICAL TEST (when required)

Nach einer mikroskopischen Untersuchung anhand einer Blutprobe wurde, war der Titer	Tieres, die eingeführt werden
I have seen an official EU-approved laboratory, which states that the rabies neutralizing antibody titre was equal to or greater than 0.5 IU/ml.	

AMTLICHER TIERARZT ODER VON DER ZUSTÄNDIGEN BEHÖRDE BEVOLLMÄCHTIGTER

TIERARZT * (In letzterem Falle ist der Eintrag von der zuständigen Behörde zu bestätigen.)
OFFICIAL VETERINARIAN OR VETERINARIAN AUTHORISED BY THE COMPETENT AUTHORITY* (in the latter case, the competent authority must endorse the certificate)

Vorname First Name:	Familiennamen Surname:
Anschrift Address:	UNTERSCHRIFT, DATUM & STEMPEL SIGNATURE, DATE &
Postleitzahl Postcode:	SIGNATURE OF ACCREDITED VETERINARIAN
Stadt City:	AND DATE OF EXAMINATION
Land Country:	(MUST BE SIGN IN BLUE INK PRIOR TO APPROVAL)
Telefon Telephone:	

* Nicht Zutreffendes streichen Delete as applicable

THE RABIES SEROLOGICAL TEST, TICK AND ECHINOCOCCUS TREATMENTS
ARE NOT REQUIRED FOR GERMANY - LEAVE BLANK



The Use of the Henneke Body Condition Scoring System in Equine Neglect Investigations

The Colorado Department of Agriculture Bureau of Animal Protection serves a support role for local agencies in investigating animal neglect and cruelty. The Bureau commissions more than 125 agents across the state giving them the authority to issue summons and complaints under the state animal cruelty statute. The Bureau also offers training for investigators specifically about equine husbandry and investigation techniques.

On a daily basis Bureau of Animal Protection agents and investigators here at the State Veterinarian's Office are communicating with the public and local law enforcement to provide information and guidance regarding animal neglect situations. It is often necessary to coordinate veterinary examination and care in these situations; the support and participation of local practitioners cannot be underestimated. One item we would like to remind veterinarians about is body condition scoring. As a tool it is very useful to investigators and prosecutors because there are objective scales available for many species. The most frequently used system is the Henneke system which can be found on line at <http://www.uky.edu/Ag/AnimalSciences/pubs/asc145.pdf>

Veterinarians use body condition evaluations as part of a routine physical exam for most species but may not be well versed in the use of specific systems to document and objectify this evaluation. Investigators and prosecutors need consistent objective findings of evidence on which to base their case so we train investigators to use published and well documented systems to obtain evidence. While no system is completely free of some subjectivity, the Henneke Body Condition Scoring system is the best system we have at this time to consistently evaluate the body condition of many livestock species including horses.

The Bureau of Animal Protection uses the Henneke system and trains investigators with classroom and hands-on learning to become familiar with the system. Through training and familiarity with a single objective system, investigators can be very successful at demonstrating neglect or mistreatment of animals. We recommend that veterinarians who wish to help their local agencies with animal investigations become familiar with the Henneke Body Condition Scoring system for horses so they may better communicate with investigators and prosecutors.

For information regarding training for investigators, prosecutors and veterinarians contact the Bureau of Animal Protection, Scot Dutcher, at 303-239-4163 or scot.dutcher@ag.state.co.us



Position Opening: Director, Rocky Ford Branch of CSU Veterinary Diagnostic Laboratory

The Colorado State University Veterinary Diagnostic Laboratory, Department of Microbiology, Immunology and Pathology, College of Veterinary Medicine and Biomedical Sciences is seeking applicants for a non-tenure track special appointment faculty position at the rank of Assistant or Associate Professor to serve as the Director of the branch laboratory in Rocky Ford, Colorado. Qualifications include a DVM degree or equivalent with experience in food animal, diagnostic and/or regulatory practice. Advanced graduate training in an area relevant to diagnostic or production medicine is desirable, but not required. The position involves an 85% commitment to diagnostic service, outreach and administrative activities as the Director of the Rocky Ford Veterinary Diagnostic Laboratory, a 10% commitment to research/scholarly activity and 5% teaching/cooperative extension activities. Duties include supervision of 7 staff, oversight of budget, facilities and all operations of the laboratory with special emphasis on BVD diagnostics and export and regulatory disease testing programs for food animals. The successful candidate will oversee microbiologic assays including serology, bacterial culture and molecular diagnostics, conduct gross necropsies and interpret histopathology results provided by pathologists at the Fort Collins or Grand Junction laboratories, participate in new test development and testing strategies, participate in the National Animal Health Laboratory Network as an emergency response lab, conduct outreach and client education efforts and serve as a liaison with the Colorado Department of Agriculture for regulatory testing. The laboratory conducts approximately 90,000 tests annually with greater than 85% of the samples from cattle. The laboratory is located on the Southern plains of Colorado; a region with a strong agricultural economy.

Applicants should submit a letter of intent, curriculum vitae and 3 letters of reference to Ms. Ida Tieman, Department of Microbiology, Immunology and Pathology, 1619 Campus Delivery, Colorado State University, Fort Collins, CO, 80523-1619. Ms. Tieman can be contacted at: Ida.Tieman@colostate.edu, tel 970-491-3228; fax 970-491-0603. For more information about the position contact Gary Mason, Search Chair at 970-297-5128 or by email: Gary.L.Mason@colostate.edu. Applications will be accepted until the position is filled, however, for full consideration applications should be received by May 1, 2012. The Veterinary Diagnostic Laboratory website is visible at: <http://www.dlab.colostate.edu/>; a full position description is available at: http://www.cvmb.colostate.edu/ns/docs/departments/mip/mip_job_director_vdl_rocky_ford.pdf

Colorado State University conducts background checks on all final candidates.
CSU is an EO/EA/AA employer



New Tagging Option for Brucellosis Vaccinates

There is a new brucellosis vaccination tagging option for those veterinarians who would like to use a RFID ear tag. The Rocky Mountain Regional Animal Health Laboratory (RMRAHL) has in stock official 840-RFID ear tags that can be used as the official brucellosis tag. They are Allflex tags, orange in color, cost \$2.00 each, and come in boxes of 50 tags per box. The recommended tag placement is shown below. The new RFID brucellosis tag should be placed in the calf's left ear. Of course, the traditional metal orange brucellosis tags are still available for use. If you are interested in ordering these new tags, contact: RMRAHL at 303-477-0049 or go to www.rmrahl.org

Recommended Application Instructions for Colorado Brucellosis EID (or OCV) Tag

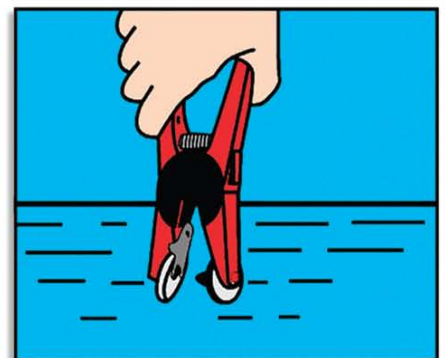
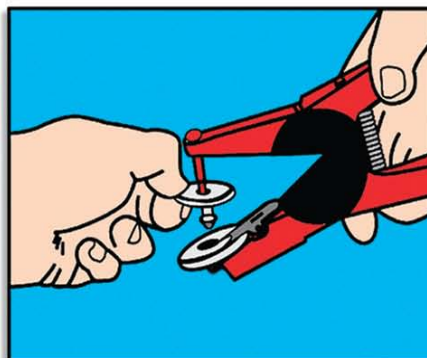
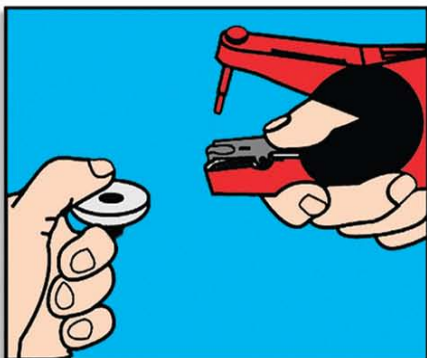
The Brucellosis electronic identification (EID) tag is an Allflex half duplex—HDX—High Performance EID tag and is applied in place of the metal Brucellosis tag by a Colorado licensed accredited veterinarian when calfhood vaccinating

Apply Allflex Electronic ID Tags using the appropriate tag applicator. When using the Universal Total Tagger (Red), use the Red Blunt Pin and remove the Insert (white or black) from the base of the jaws.

1. To load, depress spring clip and insert the female EID tag. Ensure that the raised portion of the tag, which encloses the transponder chip, is placed in the open portion of the jaws.

2. Slip the male tag completely onto the blunt applicator pin. Squeeze the jaws together lightly to ensure the male shaft is in line with the female.

3. Dip the jaws of the applicator holding the tag into an antiseptic or disinfectant solution.





Recommended Brucellosis EID Tag Placement for Cattle

	Application site must be free of foreign debris prior to placement of tag on the animal. Review application instruction prior to tagging. 1. The Brucellosis EID tag is placed in the animal's "left" ear, within the first quarter of the animal's ear, between the two cartilage ribs. The tag is not placed in the right ear because it will cover the vaccination tattoo. 2. The female portion of the tag should be on the inside of the ear with EID tag application. Note that this is a thicker part of the ear. Application may be more difficult than when applying a visual tag. IMPORTANT: Caution, "Free Air Space" is critical for proper healing and retention. Inspect placement after tagging to ensure there is sufficient space between ear and EID tag.
<i>Record the full 15-digit number onto the Brucellosis test / other official forms where the animal identification is required.</i> Special thanks to Allflex for sharing the use of their tag application content and to Washington state for sharing their Q and A sheet.	

Colorado State Brucellosis EID Tag FAQ

Q. Are the EID tags shipped in sequential order?

A. Yes, they are \$2.00 per tag and come 50 tags to a box. Order from RMRAHL, 303-477-0049 or go to www.rmrahl.org

Q. Why is the RFID tag placed in the **"LEFT"** ear?

A. The Colorado Brucellosis EID Tag is a USDA approved "alternate" tag and placed in the left ear. If placed in the right ear, it would cover the vaccination tattoo.

Q. What if the left ear of the animal is completely unusable (e.g., frostbitten, torn)?

A. The right ear may be used.

Q. Can the tag be placed in other parts of the ear (e.g., top, end)?

A. We do not recommend the tag be placed in any part of the ear other than the recommended application site:

- The recommended application site will result in the greatest retention, allow for growth of the ear in immature animals and provides a well-defined read zone for animals passing next to readers.



- Tags placed too close to the head will not have sufficient space between the two disks of the tag to allow the piercing to heal properly.
- Tags placed too far from the head will increase the probability of snagging on objects, reducing retention and making the animal's ear susceptible to tearing.
- Not all animals' ears are equal. The tag may be adjusted by as much as one-fourth to one-third from the head to allow for proper air space for healing.

Q. What tag applicator do I use to apply the EID tag?

A. Use only Allflex EID applicators available from any Allflex distributor or retailer. Manufacture notes:

- The black clip in the jaws of the pliers must be removed to install EID tags.
- The total tagger plus applicator (Green) and the Retract-O-Matic (Orange) are better for installing EID tags in volume.
- Warming the tags in the cab on the way to the producer increase tag flexibility, improving application ease.

Q. What type of reader do I use to read the EID tag?

A. Any ISO-compliant reader can be used to read the EID tag (134.2 KHz).

Q. Can producers purchase Colorado Brucellosis EID tags?

A. No. This is a USDA Brucellosis program disease tag. Only Colorado licensed accredited veterinarians may purchase and apply the EID tag.

Q. Why use HDX (half-duplex) EID tags?

A. HDX technology is considered "the gold standard" for livestock electronic identification, and offers the greatest possible read distance.

Q. Can the EID tag store additional information?

A. No. The tag cannot store additional information besides the number printed on the tag.

Q. Can the EID tag transmit the location of my animal to satellites?

A. No. EID tags are passive transponders (have no battery or internal power supply):

- The EID tag read range is very short: 3 to 6 inches for hand-held readers and up to 3 feet for alley panel readers.



TUBERCULOSIS AND THE CAUDAL FOLD TEST

Why do we test for Tuberculosis?

Bovine tuberculosis is an infectious bacterial disease caused by the bacterium *Mycobacterium bovis* which can infect all warm-blooded animals, including humans. It is typically spread via respiratory aerosols or in milk. It can also be spread through consumption of contaminated meats.

Tuberculosis (TB) is a significant disease among production animals, especially cattle. With continued risk for tuberculosis entering our herds, the state of Colorado and USDA rely on accredited veterinarians in the field to conduct the Caudal Fold Test (CFT) regularly and with accuracy.

M. bovis grows slowly and therefore an infected animal can appear healthy and be spreading the disease without the owner's knowledge. Regular screening to detect *M. bovis* using the Caudal Fold Test is an important step in the continued safety of Colorado's milk and beef supply.

Administering the Caudal Fold Test

Record All Official Animal ID's: This needs to be either a USDA brite tag, Official RFID tag (840, 124, 484) or Official Calhhood Vaccination (OCV) tag. If an animal has multiple official ID's, record them all.

Injection:

- Use a clean, fresh tuberculin syringe with a 26 gauge, 3/8" needle
- Ensure the skin is clean where you are giving the injection
- Injection must be **intradermal** and create a bleb.
- Inject 0.1 cc of Bovine Purified Protein Derivative (PPD) approximately 2" below the base of the tail in the caudal fold
- Inject all animals on the same side to streamline injecting/reading. If an animal must be injected on the opposite side, make a note of that individual.

Care of the Tuberculin

- Keep **refrigerated** until needed and **do not** expose to light

Reading the CFT

1. All animals must be observed in 72 hours +/- 6 hours and read by the **same** veterinarian that gave the injection.
2. **Observe** and **palpate** the entire length of the caudal fold. **Observation without palpation is unacceptable.**
3. **SUSPECT ANIMAL(S):** If you observe or palpate **ANY type** of response (edema, swelling, or firmness) of **ANY size** you **MUST** report the animal as a suspect. Historically many veterinarians were taught that a response was a pea-sized swelling or larger, but the definition of a suspect has changed to include **ANY** response.
4. Complete the TB Test Form VS 6-22 in its entirety, noting any suspects.
5. Call your Local VMO or Area VS Office immediately when you have suspects.
6. Mail your VS 6-22 form immediately, whether you have suspects or not.
7. Normal response rates on CFT tests are 1-5%. That means in a herd of 100 animals, you should



see 1 to 5 suspect animals normally.

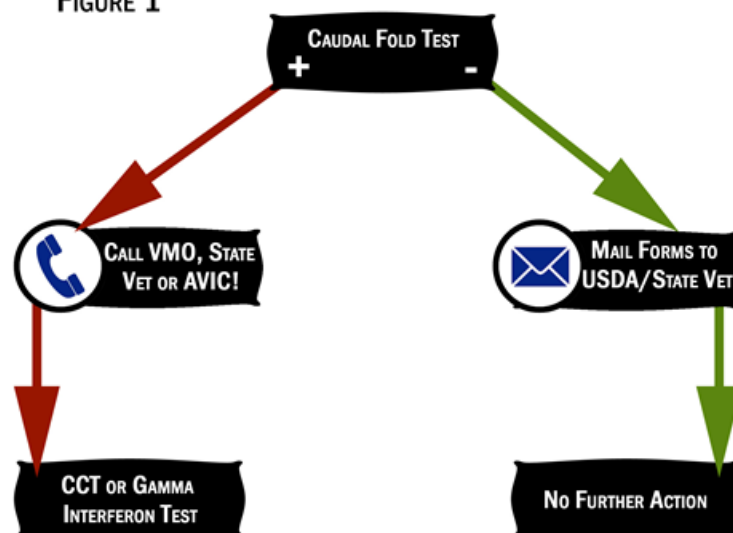
Why do animals respond to the Caudal Fold Test?

- Naturally infected with *M. bovis*—size of the response to the test is not indicative of the intensity of the infection
- Exposure to *M. avium* especially from bird contamination of feed bunks
- Concurrent skin lesions elsewhere on the body
- Johne's Disease or previous vaccination to Johne's Disease
- Exposure to other Mycobacterium species

Repeated testing using the CFT does NOT usually create an increased sensitivity to the test. It may actually **DECREASE** the animal's response to the CFT

Caudal Test Results If you identify a suspect animal that has any type of response to the CFT, call your local Veterinary Medical Officer or the State Office. If no animals respond to the test, all animals may be returned to the herd and no further testing is necessary. Please submit the VS 6-22 Tuberculosis Test form promptly to the Regional USDA office.

FIGURE 1



Ordering Forms and Supplies

To order PPD or USDA VS 6-22 TB Test Forms please contact:

USDA, APHIS, VS

755 Parfet Street, Suite 136
Lakewood, CO 80215
Ph: (303) 231-5385
FX: (303) 231-5390

Information in this article was taken from a new brochure titled *Tuberculosis and the Caudal Fold Test* produced by the State Veterinarian's Office. If you'd like the full version of the brochure please contact Kate McRoy at 303.239.4171.



A New & Emerging Disease - Schmallerberg Virus Information

(The following excerpt was taken from the OIE Technical fact sheet at http://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/A_Schmallerberg_virus.pdf)

Schmallerberg virus was discovered recently (November 2011) and epidemiological, immunological and microbiological investigations are still on-going in several European countries. The information presented in this technical disease card describes the epidemiological observations and research done during the first months following its discovery, and data extrapolated from genetically similar viruses of the same genus and serogroup.

ETIOLOGY

Classification of the causative agent

The provisionally named "Schmallerberg virus" is an enveloped, negative-sense, segmented, single-stranded RNA virus. It belongs to the *Bunyaviridae* family, within the *Orthobunyavirus* genus. The Schmallerberg virus is related to the Simbu serogroup viruses, in particular Shamonda, Akabane, and Aino virus. So far, sequence data suggests the closest relationship to Shamonda virus. This classification has to be confirmed with further sequence data and investigations e.g. about the serological relationship to other Simbu sero-group viruses.

Even though the exact role of Schmallerberg virus needs to be further investigated, first inoculation experiments as well as the diagnostic data from malformed lambs and calves strongly suggest a causal relationship between the presence of the virus and the reported clinical signs.

Resistance to physical and chemical action

From extrapolation from the California serogroup of Orthobunyaviruses:

Temperature: Infectivity lost (or significantly reduced) at 50–60°C for at least 30 minutes.

Chemicals/Disinfectants: Susceptible to common disinfectants (1 % sodium hypochlorite, 2% glutaraldehyde, 70 % ethanol, formaldehyde)

Survival: Does not survive outside the host or vector for long periods

EPIDEMIOLOGY

According to the epidemiological investigations, reinforced by what is already known about the genetically related Simbu serogroup viruses, Schmallerberg virus affects domestic ruminants. It is unlikely to be zoonotic. The spatial and temporal distribution suggests that the disease is first transmitted by insect vectors and then vertically *in utero*.

Hosts

- Cattle, sheep, goats
- Bison
- No information on the susceptibility of exotic ruminants (camelids, llamas, etc.), or other wild ruminants, or on other species. It is worth noting that other viruses of the Simbu serogroup affect wild ruminants and that antibodies to Akabane virus have been found in horses, donkeys, buffalo, deer, camels and even in pigs. Some viruses of the Simbu serogroup (Mermet, Peaton



and Oropouche viruses) have also been detected in birds. Mice and hamsters can be infected experimentally.

- *Humans:* No human disease related to Schmallenberg virus have been reported in the affected zone so far, and the genetically most related Orthobunyaviruses do not cause disease in humans. Thus current risk assessments conclude that the virus is unlikely to cause disease in humans even if it cannot be fully excluded at this stage. Nevertheless, close collaboration between public health and animal health services is recommended for the early detection of potential human cases, particularly in farmers and veterinarians in close contact with potentially infected animals, and especially during interventions for dystocia.

Transmission

The transmission of Schmallenberg virus needs to be confirmed but hypotheses have been developed through recent epidemiological investigations and comparison with other Orthobunyaviruses:

- It is likely to be transmitted via insects vectors (biting midges and/or mosquitoes)
- Vertical transmission across placenta is proven
- Direct contamination from animal to animal or animal to human is very unlikely but needs further investigation (first experiments have been started)

Further research is still needed to confirm these transmission routes and to determine the competent insect species.

Viremia and incubation period

Experimental infection in 3 calves showed mild clinical signs of acute infection at 3 to 5 days post-inoculation and viraemia at 2 to 5 days post-inoculation. No data are available for sheep and goats up to February 2012.

Sources of virus

Source of transmission:

- Likely to be infected insect vectors

Material found to be positive in virus isolation (up to February 2012):

- Virus has been isolated from blood from affected adults and infected foetus and brain from infected foetus.

Material found PCR positive (up to February 2012):

- Organs and blood of infected foetuses, placenta, amniotic fluid, meconium

All these findings have to be further investigated for their role in transmission.

Occurrence

Only some Orthobunyaviruses had been reported in Europe: e.g. Tahyna virus from the California serogroup, but viruses from the Simbu serogroup had never been isolated in Europe before.

First phase: Schmallenberg virus was first detected in November 2011 in Germany from samples collected in summer/autumn 2011 from diseased (fever, reduced milk yield) dairy cattle. Similar clinical signs (including diarrhoea) were detected in dairy cows in the Netherlands where the presence of Schmallenberg virus was also confirmed in December 2011.



Second phase: In early December 2011, congenital malformations were reported in newborn lambs in the Netherlands, and Schmallenberg virus was detected in and isolated from the brain tissue. Up to February 2012, Belgium, Germany, United Kingdom, France, Luxembourg and Italy have reported stillbirth and congenital malformations with PCR positive results.

For more recent, detailed information on the occurrence of this disease worldwide, see the *OIE World Animal Health Information Database (WAHID)* interface
[<http://www.oie.int/wahis/public.php?page=home>].

DIAGNOSIS

Clinical diagnosis

Manifestation of clinical signs varies by species: bovine adults have shown a mild form of acute disease during the vector season, congenital malformations have affected more species of ruminants (to date: cattle, sheep, goat and bison). Some dairy sheep and cow farms have also reported diarrhoea.

Adults (cattle)

- Probably often inapparent, but some acute disease during the vector-active season
- Fever (>40°C)
- Impaired general condition
- Anorexia
- Reduced milk yield (by up to 50%)
- Diarrhoea
- Recovery within a few days for the individuals, 2–3 weeks at the herd scale
- Malformed animals and stillbirths (calves, lambs, kids)
- Arthrogryposis
- Hydrocephaly
- Brachygnathia inferior
- Ankylosis
- Torticollis
- Scoliosis

The exact rate of malformation is not known up to February 2012. Some sheep farms have reported in a period related to acute infection in Summer and Autumn 2011 more than 25% malformed lambs.

Lesions

In malformed newborn

- Hydranencephaly
- Hypoplasia of the central nervous system
- Porencephaly
- Subcutaneous oedema (calves)

The symptoms can be summarised as arthrogryposis and hydranencephaly syndrome (AHS)

Differential diagnosis

For the acute infection of the adults:

- Bluetongue virus
- Epizootic haemorrhagic disease (EHD) virus
- Foot and mouth disease (FMD) virus



- Bovine viral diarrhoea (BVD) virus, border disease and other pestiviruses
- Bovine herpesvirus 1 and other herpesviruses
- Rift Valley fever virus
- Bovine ephemeral fever virus
- Toxic substances

The symptoms are not specific. Other sources of diarrhoea and milk reduction could be taken into account.

For the malformation of calves, lambs and kids:

- Toxic substances
- Genetic factors
- Bluetongue virus
- Pestiviruses
- Other viruses of the Simbu serogroup (Akabane)

Laboratory diagnosis

Samples

From live animals for the detection of acute infection:

- EDTA blood
- Serum
- At least 2 ml, transported cooled

From stillborns and malformed calves, lambs and kids:

- From necropsy: Tissue samples of brain (cerebrum and cerebellum), additional samples: central nervous system, spleen and blood
- From live newborn: blood, (preferably pre-colostral) serum and meconium
- Samples should be transported cooled or frozen
- Placenta and amniotic fluids

Procedures

Identification of the agent

- Real-time RT-PCR
- Cell culture isolation of the virus

Serological tests on serum samples

- Indirect Immunofluorescence
- Neutralization test
- ELISA to be developed

PREVENTION AND CONTROL

- There is currently no specific treatment or vaccine for Schmallenberg virus

Sanitary prophylaxis

- Control of potential vectors during the vector-active season may decrease the transmission
- Delay of breeding may decrease the number of foetal malformations



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700 Kipling Street, Suite 4000; Lakewood, CO 80215

Front Desk = (303) 239-4161; Fax = (303) 239-4164

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