Radio Frequency Identification Devices and the Livestock Industry

The United States Department of Agriculture, through its Animal Disease Traceability (ADT) Rule, which governs interstate movement of livestock, has required official identification of animals moving from state to state for the past four years. One way to increase speed of commerce is to use radio frequency identification devices (RFIDs), usually in the form of an ear tag for cattle.

There are two main types of RFID ear tags, a low frequency tag and an ultra-high frequency (UHF) tag. These tags may be customized in a variety of ways to reflect ranch and cattle information, some to even include brands on them. These tags require a special reading device referred to as a wand and the UHF tags can be read at a distance or by a panel reader as cattle pass by the device. These devices read these tags electronically and the numbers can be downloaded into spreadsheets that make it much easier to document cattle on a certificate of veterinary inspection, tuberculosis test forms, or brucellosis vaccination forms.

In order for these tags to serve as official identification for interstate movement, the first three numbers of the 15 digit tag numbers must be ‘840’, the code used to denote United States origin. The costs for these tags has decreased over the past few years which makes them more attractive as management tools for cattle producers to use with their herds.

Animal Industry Division’s Brand Bureau Announces Price Changes

The Livestock Brand Bureau, after many meetings with the Department, cattlemen’s groups and the Legislature, has restructured fees for the beneficial services our brand inspectors provide. Effective July 1, 2018

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Inside this issue:
- Featured Program: Animal Health Program
- Featured Departmental Program: Dairy Program
- Equine Herpes Virus-1: Equine Herpes Myeloencephalopathy
- Q&A Johne’s Disease: Dairy Producers Need to Know
- Utah Veterinary Diagnostic Laboratory Contact Information
- Food Safety: Escherichia coli in Romaine Lettuce
- Employee Spotlight: Leslie McFarlane

Reminders and Tips:
- Consider a Lifetime Travel Permit for your horse!
- Avian influenza is a constant disease threat to poultry. Practice good biosecurity with your backyard flock!
- Official individual identification for your livestock will reap rewards as we move toward electronic tracking of movements.
- Make sure your pets have a current rabies vaccination!
- Veterinarians, consider electronic certificates of veterinary inspection in your clinics!
Featured Program: Animal Health

The Animal Health Program, within the Animal Industry Division, focuses on prevention and control of animal diseases, with special attention to diseases that can be transmitted to humans. With a staff of five veterinarians (the State, Assistant State, and three Field Veterinarians), an Office Specialist II and Office Technician I, we perform disease monitoring for heartworm, equine encephalitis (Eastern, Western, and West Nile), Equine infectious anemia (EIA), rabies, brucellosis, tuberculosis, pseudorabies, Salmonella and Mycoplasma species, Bovine Spongiform Encephalopathy (BSE), Chronic Wasting Disease (CWD), trichomoniasis, avian influenza, and many others. We also administer the National Poultry Improvement Program (NPIP). This is a voluntary testing program wherein a flock may be certified disease free in several important disease categories.

Division staff and veterinarians continuously monitor livestock imports into the state. This is done by reviewing incoming Certificates of Veterinary Inspection (CVI) and issuing livestock entry permits to animals that meet Utah entry requirements. The Animal Health Program also has the responsibility of providing veterinary supervision and service to the livestock auction markets in Utah. We seldom have a dull day in the office!

Departmental Featured Program: Regulatory Services Dairy Compliance Program

The State of Utah currently has 184 Raw for Pasteurization Grade A dairies, four farmsteads and 10 Raw for Retail dairies (6 cow dairies and 3 goat dairies with one dairy that has both cow and goats). We have lost seven (7) Grade A dairies over the past year and a half. The average size of a dairy in Utah is approximately 460 cows. Our largest dairy is milking approximately 7200 cows and our smallest is milking 10 cows (at any given time). We have a couple of very good Raw for Retail dairies that seldom have issues. Conversely, we have a couple of the same type that are frequently suspended for high coliform cell counts or the presence of pathogens. We are currently dealing (off and on for over a year now) with a Salmonella outbreak in one of our Raw for Retail dairies.

House Bill 104, introduced in 2015 by Representative Marc Roberts and Senator Mark Madsen, modified the Utah Dairy Act by removing a prohibition on cow-sharing programs that was also extended for goats. The Herd Share Program is now legal in the State of Utah. We currently have 25 registrants enrolled in our Herd Share Program.

The 21st century has truly arrived in the State of Utah. The state currently has six dairies with a combined total of 15 robotic milkers and more are coming. The producers with the robots are delighted with them (once the learning curve is over).

In addition to the cow and goat dairies, our dairy inspectors also inspect 47 dairy processing plants, test 59 pasteurizers, evaluate around 220 haulers and inspect over 260 milk tank trucks. The dairy industry keeps us very busy in bringing fresh milk to Utah!

https://ag.utah.gov/animal/dairy.html

Equine Herpes Virus-1 (EHV-1) and Equine Herpes Myeloencephalopathy (EHM)

There has been a significant increase in the number of EHV-1 cases across the U.S. this year. By 2 years of age, almost all horses have been infected with EHV-1. The initial exposure generally occurs in foals from contact with their dams. The virus usually becomes latent, or inactive, in the horse’s body, setting up a carrier state that is lifelong. Horses of any age that are carriers of EHV-1 do not show any external signs of disease when the virus is in a latent form. The virus can be reactivated during times of stress, such as strenuous exercise, long-distance transport, or at weaning.

Equine herpesvirus myeloencephalopathy (EHM) is another name for the neurologic disease associated with equine herpesvirus (EHV) infections. Neurological signs appear as a result of damage to blood vessels in the brain and spinal cord associated with EHV infection. Interference with the blood supply leads to tissue damage and a subsequent loss in normal function of areas in the brain and spinal cord. EHV-1 is the primary cause of EHM. The standard of care for EHM is primarily supportive. Treatments may include intravenous fluids or anti-inflammatory drugs.

The most common way for EHV-1 to spread is by direct horse-to-horse contact. This virus is shed from infected horses via the respiratory tract or through direct or indirect contact with an infected aborted fetus and fetal membranes. Vaccines exist to control the respiratory and abortion manifestations of EHV-1; however, the currently licensed vaccines are not labeled for the prevention of EHM. Stop horse movement if your animals may be infected with EHV-1. (USDA APHIS VS)
Dairy farmers especially have had encounters with Johne’s Disease over the years. Emphasis on controlling this disease waxes and wanes depending on funding availability to assist producers in combating this disease.

**Q: What is Johne’s Disease?**
Johne’s Disease is a contagious, chronic, and usually fatal infection that affects primarily the small intestine of ruminants. Johne’s Disease is caused by *Mycobacterium avium* subspecies *paratuberculosis* (MAP), a hardy bacterium related to the causative agents of leprosy and tuberculosis. Johne’s Disease is found worldwide.

**Q: What are the signs and consequences of cattle being infected?**
In cattle, signs are rarely evident until greater than 2 years after the initial infection, which may occur soon after birth. Animals exposed at an older age, or exposed to a very small dose of bacteria at a young age, such as dairy cattle, are not likely to develop clinical disease until they are much older than 2 years. Signs of Johne’s Disease include weight loss and diarrhea with normal appetite. Several weeks after the onset of diarrhea, a soft swelling may occur under the jaw. This intermandibular edema, or “bottle jaw,” is due to protein loss from the bloodstream into the digestive tract. Animals at this stage of the disease will not live very long—perhaps a few weeks at most.

**Q: Can Johne’s Disease be transmitted to people?**
The organism that causes Johne’s disease is not currently known to cause disease in humans, but it has been detected in humans with Crohn’s disease, as have numerous other bacteria and viruses. Crohn’s disease is a chronic inflammatory bowel disease of unknown cause, affecting approximately 1.4 million North American people. Although there are similarities between Crohn’s disease and Johne’s disease, association does not prove causation.

**Q: How common is this organism in Utah?**
Since Johne’s disease is found worldwide, it stands to reason it is found in Utah. Bulk tank milk sampling surveillance projects have estimated that 13% of dairy herds in the western United States are positive for this disease.

**Utah Veterinary Diagnostic Laboratories**
Main Laboratory  
950 East 1400 North  
PO Box 6338  
Logan UT 84341  
Phone: 435-797-1895  
Fax: 435-797-2805  
E-Mail: uvd@cc.usu.edu

Central Utah Branch Laboratory  
514 West 3000 North  
Spanish Fork, UT 84660  
Phone: 801-798-5435  
Fax: 801-798-7009

Monday through Friday 8:00 am to 5:00 pm
Necropsies after 3:00 pm on Friday’s will be assessed an after-hours/weekend charge.
Voicemail Messaging: 435-797-1895 (Logan)  
Voicemail Messaging: 801-798-5435 (Spanish Fork)  
After-hours/weekends cell phone: 435-770-7951, *Enter contact number after tone, then push # key

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**Food Safety: *Escherichia coli* and Lettuce**

**Recent outbreak of *E. coli* 0157:H7:**
- As of May 1st, 121 people infected with the outbreak strain of *E. coli* O157:H7 have been reported from 25 states from Yuma, AZ romaine lettuce.
- Do not eat or buy romaine lettuce unless you can confirm it is not from the Yuma, Arizona growing region.
- Product labels often do not identify growing regions; so, do not eat or buy romaine lettuce if you do not know where it was grown.
- This advice includes whole heads and hearts of romaine, chopped romaine, baby romaine, organic romaine, and salads and salad mixes containing romaine lettuce. If you do not know if the lettuce in a salad mix is romaine, do not eat it.
- 52 people have been hospitalized, including 14 people who have developed a type of kidney failure called hemolytic uremic syndrome.
- One death was reported from California.

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This newsletter’s employee in the spotlight is Leslie McFarlane, our Domestic Elk Program Manager.

Q. What are your ties to Utah?
I grew up in West Jordan and I now live in Morgan.

Q. What aspect of your position do you enjoy the most?
I enjoy working with the elk producers of Utah to help the Program run smoothly and efficiently.

Q. How long have you been with the State?
27 total years, almost 26 years with the Division of Wildlife Resources and over a year with UDAF.

Q. What is your #1 bucket list destination?
Definitely Alaska! I have always wanted to go.

Q. Do you have any pets?
Sort of: I have 5 horses, 20 cows, 2 dogs, 15 chickens, 2 goats, a husband and a daughter.

Q. Is there something people might be surprised to find out about you?
You may be surprised to know I have 16 grandchildren.

Q. What is your most unusual or interesting job you have ever had?
I did my Masters project investigating the reproductive behavior of mule deer in relation to the spatial spread of CWD.

What We Do
The Animal Industry Division of the Utah Department of Agriculture and Food has six main programs:

1) Animal Health — Focuses on prevention and control of animal diseases, with special attention to diseases that can be transmitted to humans.


3) Livestock Inspection (brand registration and inspection) — Offer protection to the livestock industry through law enforcement.

4) Aquaculture Health — Protecting fish health in the state and addressing concerns of fish food production and processing.

5) Elk Farming and Elk Hunting Parks — Regulating this domestic livestock industry with an emphasis on protecting Utah’s wild elk population.

6) Veterinary Diagnostic Laboratories - Disease diagnosis and surveillance.