The movement of milk will be crucial should an outbreak occur in the United States that adversely affects the normal movements of animals and animal products. The Animal Health Program has started working on a Secure Milk Supply Plan that will allow the permitted movement of milk in the event of a foot and mouth disease outbreak or similar situation where interstate and international movement may be restricted.

Utah has partnered with several other states to form the Mountain 2 Plains Secure Milk Supply Working Group which includes: Colorado, Idaho, Oregon, Kansas, and Washington. We will be sharing plans and documents as we move this effort forward. Once plans are drafted, the Animal Health Program will partner with our colleagues in the Dairy Compliance Program of the Regulatory Services Division of UDAF and we will begin to reach out to dairies, milk processors, milk haulers and others involved in the dairy industry to solicit their input. It is essential that we involve our dairy industry in Utah to meet the specific needs of our state in a national outbreak. Allowing milk movement under the guidance described in the SMS Plan will help preserve the economic viability of dairy farms and dairy businesses and ensure a continuous supply of dairy products to consumers while preventing disease spread. The guidance documents focus on biosecurity measures needed to limit disease spread during movement of raw milk to processing.

Welcome Our Recent Additions to the Animal Industry Division!

Shalia Taula has joined the Animal Industry Division as our new Office Technician I for Animal Health Program duties in permitting and data entry. She began as a temporary hire and did such a great job we offered her the position! She originally hails from Missouri and now resides in West Valley. She is also currently going to school to be an ultrasound technician. If you are up our way, drop by her desk and say hello. She is also an avid Kansas City Chiefs football fan.

Tiffani Metoyer, our new Office Technician I, to replace Delia Tracey, who will move over to the Chemistry Laboratory full time. She is originally from California but most recently moved here from Cheyenne, WY, where she worked for their Department of Agriculture. She brings with her many of the skills we were looking for and a wealth of experience in most facets of the administrative sector.

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!

Inside this issue:
- Featured Program: Aquaculture Health 2
- Featured Departmental Program: Apiary Program 2
- West Nile Virus: Still A Serious Threat! 2
- Q&A Brucella ovis: What is a producer to do? 3
- Certificates of Veterinary Inspection Books Price Increase 3
- Food Safety: Salmonella Species & Animals 3
- Employee Spotlight: Anna Marie Forest 4

Inside this issue:
Departmental Featured Program: Apiary Program

In 1892 beekeepers successfully lobbied the Utah territorial legislature to pass the first bee inspection act. This act brought the Utah Apiary Program into being with the intent of controlling the spread of deadly foulbrood diseases that had become rampant in the territory. Thankfully, registration and regular inspection were able to control foulbrood diseases. It has been 125 years since the first bee law, but foulbrood diseases are still a threat to beekeepers to this day. As a result, the Utah Apiary Program continues to register and inspect beekeepers. In addition to foulbrood diseases, honey bees face new threats from pathogens, parasites, pesticides, and poor nutrition. The Utah Apiary Program works with beekeepers to control and mitigate disease issues.

Beekeeping contributes approximately $20 Billion annually in economic value to U.S. agriculture. Through pollination, honey bees are indirectly responsible for 1/3 of global food production and ¾ of all fruit, vegetable, and nut production. Without the yield increases made possible by commercial pollination services, food prices would rise, the U.S. farm sector would rapidly become less competitive globally, and the security and variety of our food supply would diminish.

With the implementation of the FDA Veterinary Feed Directive (VFD) on January 1st, 2017 beekeepers now need to work with a veterinarian to obtain the antibiotics used to control foulbrood diseases. While most vets are not used to working with bees and beekeepers (and vice versa), the Utah Apiary Program is working to smooth the transition for both parties. Through the Apiary Program, UDAF is offering free testing for honey samples, guidance for veterinarians, and resources to link beekeepers to veterinarians willing to work with bees.

https://ag.utah.gov/plants-pests/beekeeping.html

West Nile Virus: Still a serious threat!

With over thirty confirmed cases of West Nile Virus (WNV) in Utah horses this year, and more being confirmed every week, it is clear that WNV is still a serious threat to our equine companions. Thankfully, there are vaccines available that will prevent the disease and/or reduce symptom severity.

WNV is carried by wild birds and can be transmitted from infected birds to horses and people by mosquitoes. People cannot become infected by contact with an infected horse. The most common symptoms in horses are weakness or incoordination of the hind limbs, facial twitching, and inability to swallow. In severe cases, the horse may experience convulsions, be unable to stand, or even die. Statistically, 1-in-3 horses that show signs of the illness will die, and horse owners who suspect WNV should contact their veterinarian immediately to determine if treatment is an option.

For the prudent horse owner, prevention is much more effective, economical, and humane than attempting to treat after clinical signs appear. A horse that has never been vaccinated for WNV will need two doses administered four weeks apart to be fully protected. However, it is best to develop a program or plan with your local veterinarian that reflects what your animals’ specific needs are based on risk of disease even if you vaccinate them yourself.

To see where WNV has been confirmed in Utah, visit http://ag.utah.gov/animal.html and click on ‘Interactive Map’.

Featured Program: Aquaculture Health

The aquaculture/aquatic animal health program has four primary functions: 1) license private aquaculture and fee fishing facilities; 2) grant health approval to in-state private aquaculture facilities and all out-of-state aquaculture facilities; 3) issue entry permits for aquatic animals entering the state and 4) serve on the Fish Health Policy Board and Utah Water Quality and Health Advisory Panel.

The aquaculture program licenses 15 aquaculture facilities, 82 fee fishing facilities, and 4 fish processing plants within Utah. Six of the 15 aquaculture facilities have Health Approval and are able to sell live fish to stock private ponds. Health approval was also granted to four in-state mosquito abatement districts, and the following out-of-state aquaculture facilities: five federal hatcheries, eleven private aquaculture facilities, and ten State hatcheries.

In order to be granted health approval, aquaculture facilities must demonstrate that aquatic animals are free from a multitude of prohibited pathogens, such as White spot syndrome virus, Myxobolus cerebralis (whirling disease), and Bothriocephalus (Asian tapeworm). Entry permits are issued to out-of-state facilities that have health approval and are shipping aquatic animals to facilities that have a license for the aquatic animal or are otherwise legally able to receive the animals by rule.

To see where WNV has been confirmed in Utah, visit http://ag.utah.gov/animal.html and click on ‘Interactive Map’.

Honey bee health inspection.
Sheep producers have continued to experience sporadically high incidences of *Brucella ovis* positive rams in their flocks this year.

**Q: What is *Brucella ovis***?
*Brucella ovis* is an economically important cause of epididymitis, orchitis and impaired fertility in rams. *B. ovis* is occasionally associated with abortion in ewes, and can cause increased numbers of stillborn lambs.

**Q: What are the consequences of a flock being infected?**
*B. ovis* is often transmitted from ram to ram by passive venereal transmission via ewes. Ewes can carry this organism in the vagina for at least two months and act as mechanical vectors. Some ewes become infected and will shed *B. ovis* in vaginal discharges and milk. Rams often become persistently infected, shedding *B. ovis* intermittently in their semen for 2 to 4 years or longer. *B. ovis* can also be transmitted by direct non-venereal contact between rams. Ram-to-ram transmission is poorly understood and may occur by a variety of routes, including oral transmission. Shedding has been demonstrated in the urine as well as in semen and genital secretions.

**Q: Can *Brucella ovis* be transmitted to people?**
Unlike most other species of *Brucella*, *B. ovis* is not known to infect humans.

**Q: How common is this organism in Utah?**
*B. ovis* has been reported in Australia, New Zealand, North and South America, South Africa, and many countries in Europe. It likely occurs in most sheep-raising regions of the world. Utah is no exception. We have many positive rams reported every year.

**Q: One of my rams tested positive for *Brucella ovis*, what should I do?**
*B. ovis* is generally introduced into a flock by infected animals or semen. The prevalence of infection can be reduced by examining rams before the breeding season and culling rams with palpable abnormalities. However, palpable lesions are not found in all infected rams. Submitting samples from each ram to a laboratory for testing will provide a more reliable diagnosis. In some areas, *B.-ovis*-free accredited flocks and rams may be available. Vaccination is not practiced in the U.S. Antibiotic treatment has occasionally been successful in some valuable rams, but is usually not economically feasible for most animals. Fertility usually remains low even if the organism is eliminated. Infections in ewes are generally prevented by controlling infections in rams.

### Food Safety: *Salmonella* and Food

**Quick tips for preventing *Salmonella* in your food:**
- Cook poultry, ground beef, and eggs thoroughly. Do not eat or drink foods containing raw eggs, or raw (unpasteurized) milk.
- Wash hands with soap after handling reptiles, birds, or baby chicks, and after contact with pet feces.
- Avoid direct or even indirect contact between reptiles (turtles, iguanas, other lizards, snakes) and infants or immunocompromised persons.
- Wash hands, kitchen work surfaces, and utensils with soap and water immediately after they have been in contact with raw meat or poultry.
- If you are served undercooked meat, poultry or eggs in a restaurant, don’t hesitate to send it back to the kitchen for further cooking.
- Don’t work with raw poultry or meat, and an infant (e.g., feed, change diaper) at the same time.

### Certificate of Veterinary Inspection Books Cost Increase

The cost of CVI books for veterinarians was recently increased to $50 per book. This price increase was needed to cover the costs of data entry for paper copies received at our office. Any veterinarian or veterinary office personnel who would like to transition to electronic CVIs can visit our website, review multiple options (some are free), and consider the pros and cons of each option: https://ag.utah.gov/animal.html

Our staff would be happy to assist you in any way if you make the decision to transition to eCVIs.
Division Highlighted Employee:  
Anna Marie Forest - Aquaculture Health

This newsletter’s employee in the spotlight is Anna Marie Forest, our fish health specialist / wildlife coordinator.

Q. How long have you been with the Division?  
About 3 years. Before this I worked in the lab at the Fish Experiment Station.

Q. What is the most unusual or interesting job you have ever had?  
I was an observer for the National Marine Fisheries Service and performed assessments during offshore oil rig demolitions. I also packed C4 for one of the demolitions.

Q. Is there something people might be surprised to find out about you?  
I hold four state records for competitive swimming. I also have the record for the fastest female to swim across Bear Lake.

Q. If you could be any superhero who would it be?  
Aquaman. I’ve always wanted to be able to breathe underwater.

Q. What is your favorite place to visit in Utah?  
Red Butte Gardens. I enjoy going to the concerts there.

Q. Do you have any pets?  
I have a cat named Kenny. He’s a 15 year old Japanese Bobtail with one green eye, one blue eye, epilepsy, and arthritis.