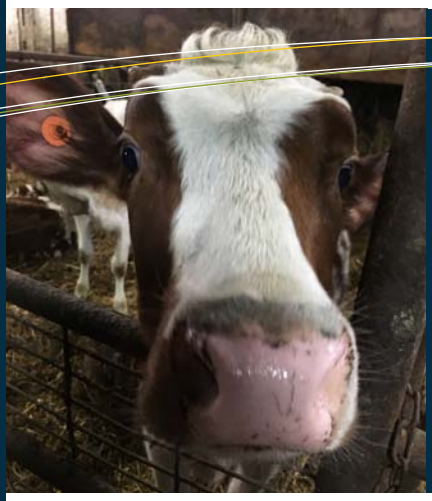
Office of the State Veterinarian

DIVISION OF ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL CONSERVATION



in this issue

Winter 2017/2018 Newsletter

Office of the State Veterinarian

5251 Dr. Martin Luther King Jr. Ave
Anchorage, AK 99507
907.375.8215 phone
907.929.7335 fax
http://dec.alaska.gov/eh/vet

Register for our listserve:
http://list.state.ak.us/mailman/listinfo/akstatevetnews

Robert Gerlach, VMD
Alaska State Veterinarian
907.375.8214
bob.gerlach@alaska.gov

Sarah Coburn, DVM, MS
Assistant State Veterinarian
907.375.8213
sarah.coburn@alaska.gov

Christoff Furin, PhD
Fish Program Manager
907.375.8211
christoff.furin@alaska.gov

Barbara Hanson
Dairy Sanitarian/
Produce Safety Specialist
907.375.8278
barbara.hanson@alaska.gov

Dena Cologgi, PhD
Program Coordinator
907.375.8212
dena.cologgi@alaska.gov

FROM THE STATE VETERINARIAN

As the State Veterinarian in the Department of Environmental Conservation (DEC), I am considered the "state animal health official" for Alaska, which stewards certain statutory powers to safeguard the health of the state's animal resources and food produced from these resources. The statutory authority covers animal movement, quarantine, disease surveillance, permitting intrastate movement and imports, disease investigations, and emergency response. I also act as a central point of contact for my peers at the federal agencies (USDA, USFWS, USGS, NPS, NOAA) and for animal health officials in other states and countries. In addition to the Office of the State Veterinarian (OSV), several veterinary professionals in other state government agencies work closely with my office and with each other to ensure the health and well-being of animals and the public, as well as thriving wildlife populations and a robust agricultural industry.

My colleagues in the Alaska Department of Fish and Game, Department of Health and Social Services, and the Department of Natural Resources, each have specialties and areas of expertise that work toward our shared goals of a safe, healthy, and prosperous Alaska. In this newsletter, I explain in detail how this veterinary network works in Alaska, and examples of how each agency contributes towards our shared mission *(see p. 8-9)*.

Our goal is to protect environmental health, public health, and animal health in Alaska; to effectively support the wildlife, livestock, and domestic animal owners in the State, there must be a collaboration between all the agencies. This "One Health" model is universally accepted and is a worldwide strategy which recognizes that these disciplines are intricately related, and seeks to expand interdisciplinary collaborations and communications. This model is carried out in Alaska partly due to the OSV's close working relationship with a number of diverse community, state, and national partners. In this newsletter, you will find additional information about the different organizations and networks that the OSV works with to safeguard the health and food-producing capacity of Alaska's livestock, reindeer, and poultry, and prevent the transmission of animal disease to humans.

Wishing you a safe, healthy, and prosperous new year.

Sincerely,

RF Gerlach, VMD

Dr. Robert Gerlach, VMD
State Veterinarian

ABBREVIATIONS

ADF&G
Alaska Department of Fish and Game

AKMAP
Alaska Monitoring and Assessment Program

CDC
Centers for Disease Control

DEC
Department of Environmental Conservation

DNR
Department of Natural Resources

EHL
Environmental Health Laboratory

FMP
Fish Monitoring Program

HSS
Department of Health and Social Services

IPHC
International Pacific Halibut Commission

Movi
Mycoplasma ovipneumoniae

NOAA
National Oceanic and Atmospheric Administration

NPS
National Park Service

OSV
Office of the State Veterinarian

UAF CES
University of Alaska Fairbanks Cooperative Extension Service

USDA
United States Department of Agriculture

ATTENTION ACCREDITED VETERINARIANS:

Several states are no longer accepting the electronic Animal and Plant Health Inspection Service (APHIS) Form 7001, ***United States Interstate and International Certificate of Health Examination for Small Animals*** for small animal imports. The reason is that the downloaded form is freely available on the internet with no accountability as to who receives or uses it, and it does not have a unique identifying number assigned from United States Department of Agriculture. However, all states are still accepting the multi-page carbon copy APHIS Form 7001 that has been distributed to veterinarians in the past.

There are two websites that may be used as a reference for completing import paperwork:

AVMA: http://www.avma.org/KB/Resources/Reference/Pages/CVI-Interstate-Certificates-Veterinary-Inspection.aspx

USDA: http://www.aphis.usda.gov/aphis/ourfocus/importexport

If you have any questions, please contact the state of destination to determine their import and certificate requirements prior to issuing a certificate of veterinary inspection. It is the responsibility of the accredited veterinarian to ensure that all of the receiving state's import requirements are met.

A list of the animal health officials for other US states can be found on the OSV website at: http://dec.alaska.gov/eh/pdf/vet/state-animal-health-officials-20170615.pdf

Also, the Canadian government is no longer requiring a health certificate, or any other requirements for pet birds imported into Canada.

PRODUCE GROWERS FOOD SAFETY WORKSHOPS

The Office of the State Veterinarian is planning **Produce Growers Workshops** in several communities across the state this winter and spring. This Food and Drug Administration (FDA)-approved course will satisfy the Grower Training curriculum requirements under the FDA's Food Safety Modernization Act (FSMA) Produce Safety Rule. Funding is provided by a FDA—State of Alaska Cooperative Agreement. Growers will receive a FREE certificate of attendance for completing the course.
The workshops are open to all interested growers.

KODIAK
Thursday, February 15, 2018
9:00 am — 6:00 pm
Kodiak City Library
612 Egan Way, Kodiak, AK

PALMER
Wednesday, February 21, 2018
8:30 am — 5:30 pm
Palmer Library
655 S. Valley Way, Palmer, AK

JUNEAU & SITKA (TENTATIVE)
Week of March 18, 2018
Location and Dates TBD
Contact us if you are interested in attending!

To register, contact Dena Cologgi at dena.cologgi@alaska.gov or (907) 375-8212.

Be sure to visit the OSV website at https://dec.alaska.gov/eh/vet/produce.aspx for more information about the Alaska Produce Safety Program, and register for our listserve at http://list.state.ak.us/mailman/listinfo/akstatevetnews to receive announcements of future workshops. If you or other growers in your area are interested in having a workshop in your region, please contact us and we will work to bring a workshop to you.

FISH MONITORING PROGRAM UPDATE

The Fish Monitoring Program (FMP) completed several projects this quarter, which included analyzing Kotzebue Sound shellfish, Nome juvenile Coho, Healy Lake Northern Pike, and Southeast lake fish from the Alaska Monitoring and Assessment Program (AKMAP) Lake Survey for heavy metals. The results from these projects are now available on our web map at http://dec.alaska.gov/eh/vet/FishTissueSampling.html. In addition, the FMP continues to analyze fish samples, mostly halibut, we received in 2017.

Dr. Gerlach presented to the Seafood Technical Committee of the Alaska Seafood Marketing Institute at their All Hands on Deck Board Meeting in November. His talk was well received and he was invited to speak about fish and contaminants at the Pacific Fisheries Technologists Conference February 5-7, 2018 in Girdwood. The FMP will also present a poster at this conference, highlighting work on free fatty acids, including Omega-3 fatty acids, in halibut.

We expect the FMP to receive samples this spring collected from Southeast Alaska rivers that have the potential to be impacted by transboundary mining operations. This is a collaborative project with the FMP, AKMAP and the ADF&G. We have also made plans with the International Pacific Halibut Commission to sample halibut in 2018, this time from Southcentral Alaska waters in Prince William Sound and around Kodiak Island.

Contaminant data is added to our public database as it becomes available. View it on our webpage at: http://dec.alaska.gov/eh/vet/FTMP.html

Left and center: preparing fish for heavy metals analysis; right: analyzing fish tissue samples for radiation.

2018 Pacific Fisheries Technologists Conference

The Pacific Fisheries Technologist (PFT) is a group of individuals interested in fisheries technology and the products made from fishery resources. The PFT annual conference will include presentations of scientific papers, discussions of technical scientific matters relating to fishery industries, and the formation of collaborations between research institutes, universities, and governmental agencies engaged in fisheries work.

Dr. Gerlach and Dr. Furin will be giving a talk and presenting a poster on their work with the Fish Monitoring Program. Specifically, they will discuss fatty acid profiles in the muscle of Alaska Pacific Halibut, as well as their findings regarding contaminants (metals, organics, and radiation) in Alaska's fish.

For more information, or to register for the conference, visit http://pftfish.net/.

2018 Pacific Fisheries Technologists Conference
February 5—7, 2018
Alyeska Resort
Girdwood, AK

MEET
DENA COLOGGI, PhD
Program Coordinator

Dena was raised in Alaska, but left the state to pursue her B.A. in Biology at Willamette University. She then went on to obtain her Ph.D. in Microbiology and Molecular Genetics from Michigan State University, where her studies focused on the use of microorganisms to remediate uranium in contaminated sites. After receiving her degree, she pursued a postdoctoral fellowship at the University of Alberta where she developed microbial methods for remediating tailings produced by the extraction of bitumen from Alberta's oil sands.

Dena is a recent addition to the OSV, joining the group approximately one year ago. She serves as the Program Coordinator for both the OSV and the Environmental Health Laboratory (EHL), which means she works on a very wide variety of projects—essentially anything that comes her way! In addition to producing this newsletter, she is responsible for maintaining the OSV website, works to maintain the EHL's ISO 17025 accreditation, and plays an active role in the Produce Safety Program, as well as the EHL's Quality Assurance and Shipping/Receiving teams.

PRODUCE SAFETY PROGRAM UPDATE

Staff with the Produce Safety Program kept busy this fall leading grower trainings and participating in conferences and other outreach activities to educate growers about food safety on the farm and how the FSMA Produce Safety Rule applies to their businesses.

Dr. Coburn and Barbara Hanson lead a Produce Growers workshop in Anchorage.

Six Produce Growers workshops have been held across the state since last fall, with nearly 90 growers participating! The OSV is very pleased with the wonderful response from a wide range of Alaskan growers. Workshop attendees have included everyone from large farms covered by the Rule, small farms, farmers' market sellers, government and extension employees, and individuals who would like to learn more about how to safely handle the produce they grow. Due to a grant from the Food and Drug Administration, the OSV is able to offer this course free to any interested grower. To take advantage of this opportunity, contact the OSV if you would like a training held in your community.

This winter, additional trainings are scheduled in Kodiak and Palmer in February (*see p. 2 for additional information and registration details),* and a tentative trip to Southeast Alaska is in the works for March. Be sure to stay tuned to our website, Facebook page, and listserve (http://list.state.ak.us/mailman/listinfo/akstatevetnews) for announcements.

Outreach booth at the Alaska Food Policy Council's Food Festival and Conference.

In addition to educational workshops, outreach and communication with growers is also an important part of the work in the Produce Safety Program. This fall OSV staff attended the Alaska Food Policy Council's Food Festival and Conference in Fairbanks. Dr. Coburn gave a presentation about the function of the OSV and the programs we manage, the history of food safety regulations, and an overview of the Rule. The same weekend, Dr. Gerlach presented at the Alaska Farm Bureau Meeting in Homer. He also discussed the Rule, and gave an update on the ongoing study of *Mycoplasma ovipneumoniae (Movi)* in Alaska's domestic sheep and goats *(a summary can be found on p. 6—7 of this newsletter)*. OSV staff also held outreach booths at both events, with a focus on the Produce Safety Program.

Outside of the formal workshops and presentations, a wide variety of information and resources for growers is available 24/7 on our website. Here you will find templates for tracking produce sales, compliance guides, and information to help you determine what your farm needs to be in compliance with the federal rule. OSV staff are also available to discuss your questions and concerns one-on-one. Feel free to contact our office anytime.

NASDA Consortium Annual Meeting for Produce Safety

Irvine, CA
March 6—8, 2018

Representatives from Alaska's Produce Safety Program will be traveling to the National Association of State Departments of Agriculture (NASDA) Consortium Annual Meeting for Produce Safety this March. Dr. Coburn will be giving a talk about Alaska's Produce Safety Program, discussing unique factors affecting Alaska's agricultural landscape, and highlighting issues that are important to Alaskan growers.

WINTER CARE FOR CHICKENS

Alaska's cold winters can have a negative impact on the health and egg-laying capacity of your flock, so it is important to ensure your chickens are warm and comfortable all winter long.

Below are a few tips from the University of Maine Cooperative Extension Service (the full article can be found here: http://extension.umaine.edu/publications/2217e/) on how to keep laying hens productive during the winter months:

- **Light:** Provide fourteen to sixteen hours of light per day for your laying hens.
- **Spacing:** Provide two to three square feet of floor space per bird.
- **Roosting Space:** Provide at least six to eight inches of linear roost space per hen.
- **Ventilation:** There needs to be an exchange of air for laying hens to be healthy. If the smell of ammonia is evident, adequate ventilation is lacking.
- **Check for Drafts:** Check for drafts at high points, low points, and at every corner.
- **Sanitation:** Keep all areas of the pen clean. Remove soiled feed and dirty water immediately. Keep feeders, roosts, nests and waterers clean. Keep bedding dry and clean.
- **Warmth:** Provide adequate warmth for the birds. This can be accomplished through insulating the floors, walls and ceiling with fiberglass matting or Styrofoam panels. Consider supplemental heat. Try to maintain a temperature of at least 40°F. Be aware of any potential fire hazards when using heaters and heat lamps.
- **Feed:** Birds typically need extra feed in cold and freezing temperatures.
- **Water:** Provide ample clean water. Keep water from freezing using electric heaters, warm bricks placed inside the watering container, or frequent changing.
- **Culling:** Remove sick, weak, or unproductive birds from the flock.
- **Nesting:** Provide adequate nest boxes (one nest box per five hens) and keep bedding inside the nest box clean and dry.
- **Rodent Control:** Keep rodents out by using traps or poisons placed strategically in bait stations. Keep the traps and poisons away from the birds and pets.
- **Egg Collection:** Collect eggs at least twice each day or more frequently to prevent eggs from freezing.
- **Frostbite:** Birds can get frostbite on extremities (combs, wattles, and toes). Birds should be kept from walking on snow and ice. To help prevent frostbite in small flocks, apply petroleum jelly to wattles and combs.
- **Observe Birds:** Take time to observe your birds each day. Watch the birds' behavior. Handle a random sample of birds to check combs, feet, toes, eyes, legs color, vent size, and general appearance. When handling, look for signs of external parasites, and check body condition and weight.
- **Dust Bath:** A dust bath of a shallow wood or metal box with three to four inches of clean sand, wood ash or a mix of sand and wood ash can help deter external parasites and can provide comfort to hens.
- **Winter Biosecurity:** Designate and use specific chore clothing and footwear when feeding, caring for and handling poultry. Keep visitors out of your poultry house/pen.
- **Predator Pressures:** The winter season can bring about increased predator pressure. Make sure your henhouse or coop is secure so as to prevent entry by predators.

CHICKEN HEALTH AND SAFETY CLASS

Saturday, February 17, 2018
10:00—11:00 am

Alaska Garden and Pet Supply, Inc.
114 N. Orca St.
Anchorage, AK 99501

In this presentation Dr. Gerlach and Dr. Coburn will discuss proper husbandry and management of backyard poultry flocks. Participants will learn about diseases that are specific to poultry, as well as ones that can be transmitted to humans and other animals. We will also discuss how to create a biosecurity plan to prevent disease issues in your flock.

This presentation is FREE and open to the public. Anyone interested in poultry health and disease prevention is encouraged to attend; no previous knowledge or experience is necessary.

Registration is not required, but if you have any questions about this class please contact sarah.coburn@alaska.gov.

ALASKA FORUM ON THE ENVIRONMENT

February 12—16, 2018

Dena'ina Convention Center

600 West 7th Avenue
Anchorage, AK

The Alaska Forum on the Environment (AFE) is a statewide gathering of environmental professionals from government agencies, non-profit and for-profit businesses, community leaders, Alaskan youth, conservationists, biologists, and community elders. The Forum provides an opportunity for state, local, federal, military, private, and Native leaders and professionals to come together and discuss the latest projects, processes, and issues that affect us here in Alaska.

Dr. Gerlach and Dr. Coburn will be involved in two panels regarding the care of Alaska's pets.

For more information, or to register for this conference, visit http://www.akforum.org/afe/.

Continued on p. 7 (sidebar)

DOMESTIC SHEEP AND GOAT *MOVI* SURVEILLANCE STUDY UPDATE

There are very limited data available regarding the prevalence of the respiratory pathogen *Mycoplasma ovipneumoniae (Movi)* in domestic or wild sheep and goats in Alaska. Beginning last summer, the OSV, in collaboration with the Alaska Farm Bureau, the Alaska Department of Natural Resources, the Alaska Department of Fish and Game, the Washington Animal Disease Diagnostics Laboratory, and the US Department of Agriculture, began a pilot study to estimate the overall prevalence of *Movi* in domestic sheep and goat herds in the state of Alaska. This will help assess the potential risk to wild sheep if comingling were to occur. It will also provide a scientific basis to conduct a risk assessment, and for wildlife managers as they monitor, study, and make decisions about the management of wild sheep herds in the state.

The Domestic Sheep and Goat *Movi* Surveillance Study is continuing in 2018. Results from the first rounds of testing done this summer and fall are still coming in. The following article is intended to help you interpret your test results, and better understand our sampling protocols. At any time, please call our office to discuss these or other aspects of the *Movi* study in more detail.

What does a 'positive' test result mean for a given flock or animal?

For any screening test or diagnostic test, you must know the limitations of the test, what the test parameters are, what a positive indicates, and the purpose of the test. A positive test for this study means that *Movi* was detected by polymerase chain reaction (PCR) on nasal or ocular swabs by one or both of the participating diagnostic laboratories. If no *Movi* is detected, either the animal truly is negative for *Movi*, the *Movi* was present at quantities too small to be detected by the PCR test, or there were some other factors that affected the sample during collection or shipping that led to bacteria not being identified by the test.

This study is meant to determine overall prevalence of *Movi* in herds around the state, not to identify the *Movi* status of every individual animal. Most of the animals being sampled are not showing signs of respiratory disease, and are considered healthy. There is a lot that is not known about *Movi* infection, shedding, and transmission. Detection of *Movi* at a given sampling event doesn't necessarily indicate a permanent carrier state, or that the animal is sick or is likely to become sick from this bacteria. The animal may be shedding the bacteria temporarily and then eliminate the *Movi,* so *Movi* might not be detected at a subsequent sampling event. The detection of *Movi* in a flock may be influenced by husbandry or management practices, herd health and biosecurity plans, the number of interactions with other flocks, as well as the number and source of animals purchased and added to the herd.

Sheep and goat owners should consult with their private veterinarian to determine what, if any, management decisions are appropriate for their flock based upon the *Movi* test results. Any disease testing, including for *Movi*, is only one aspect of flock management. Other factors that might be considered as part of an overall herd health plan are stocking density and nutrition, as well as your breeding program and production goals.

MOVI STUDY UPDATE

Continued from p.6

Why collect duplicate samples?

Part of the study methodology includes collecting duplicate samples from a subset of animals in each participating domestic flock or herd. All samples are being submitted for analysis at the United States Department of Agriculture Research Services Laboratory (USDA ARS). This is the primary testing laboratory for this study. Duplicate samples are being analyzed by the Washington Animal Disease Diagnostic Laboratory (WADDL). Having a subset of samples analyzed at two different laboratories is not intended to serve as a formal inter-laboratory comparison. It will, however, help WADDL validate the blood test (cELISA) method for goats, and provide an extra level of confidence in the study results.

Based upon the results up to this point, the two laboratories have complete concurrence (agreement) on over 96% of the nasal swab samples that have been run at both labs. USDA ARS and WADDL use two different PCR methodologies. PCR is a lab technique that amplifies small amounts of *Movi's* genetic material. This allows detection even if only a very small number of bacteria are present in the sample. These results are really outstanding; 96% is a very high level of concurrence. For example, you may not see this level of agreement on lab results even when a laboratory is running quality assurance testing on duplicates of the exact same samples.

What are some reasons that two labs could produce different results (and not have 100% concurrence)?

First, 'duplicate' connotes that the samples are exactly the same. The reality is that even though two samples were collected at the same time, they are two separate samples. The animal may have been cooperative when the first swab was taken, but not been as cooperative and struggled more when the duplicate swab was taken. There may have been a low number of *Movi* present in the nasal passage, right around the detection limit of the test. So on one sample it was detected, while not being detected on the second sample. There is always the possibility of a labeling error, other collection error in the field, or difference in shipping and handling of the samples.

The fact that the two laboratories we are using to analyze our *Movi* samples have such a high level of concurrence overall gives another level of confidence in the test results that we have received thus far.

We appreciate all of the sheep and goat owners who have participated in the study so far. There is a lot about *Movi* that is still not known, and we appreciate your willingness to participate and contribute to the understanding of the epidemiology of this microorganism in Alaska. If you have any questions about the study, please contact our office. If you are interested in having your flock or herd included in the study, please contact your private veterinarian to coordinate sampling.

The most updated information on the *Movi* study will be on our website at http://dec.alaska.gov/eh/vet/movi.aspx.

Delta Farm Forum

The Delta Farm Forum brings growers, producers and the community together to hear about agricultural research, recommendations and farm agency news. Dr. Gerlach will be giving a presentation on the joint ADF&G and OSV tick surveillance project, and discuss changing species distribution patterns and potential impacts on human health.

This day-long event is free to the public, and no registration is required. It is co-sponsored by the UAF Cooperative Extension Service Delta District and the Salcha-Delta Soil and Water Conservation District.

Contact the Delta Cooperative Extension office at (907) 895-4215 for more information.

DELTA FARM FORUM
Saturday, February 24, 2018
9:00 am — 4:00 pm
Delta High School, Small Gymnasium
Delta Junction, AK

ALASKA FORUM ON THE ENVIRONMENT

Continued from p. 6 (sidebar)

Where does Fido go?: Animals in Disaster

10:30 – 11:45 AM
Tuesday, February 13

Presenters: Casey Cook, Jesse Stubblefield, Robert Gerlach

Alaska's State Veterinarian highlights the importance of disaster planning for your pets. Members of the Mat-Su Community discuss their experiences evacuating and sheltering livestock, dog teams, and pets during the 2015 Sockeye Fire.

Rural Veterinary Services: Where Are We Now & Where Do We Go From Here

2:00 – 3:15 PM
Wednesday, February 14

Presenters: Sarah Coburn, Arleigh Reynolds, Dan Boyd, Sally Clampitt; Moderator: Todd Radenbaugh

Rural veterinary services represent so many perspectives in the state such as Native culture, non-profit, healthcare, environmental health and humane animal treatment. For more effective vet services, these groups need to cooperate more with rural youth groups, funding agencies, and rural communities.

STATE AGENCY VETERINARY NETWORK

Staff at the Department of Environmental Conservation, including the Office of the State Veterinarian (OSV), often work closely with other state agencies to ensure safe food, clean drinking water, healthy animal populations and healthy environments. Especially in lean budget times, it is important to leverage resources and expertise by reaching out to our colleagues and sharing information and resources. Specifically, state agency veterinarians work closely together to effectuate the "One Health" model.

STATE AGENCY VETERINARIANS

FISH & GAME

Division of Wildlife Conservation

Dr. Kimberlee Beckmen
Wildlife Veterinarian
kimberlee.beckmen@alaska.gov
(907) 459-7257
1300 College Rd.
Fairbanks, AK 99701-1599

HEALTH & SOCIAL SERVICES

Division of Public Health

Dr. Louisa Castrodale
Veterinary Epidemiologist
louisa.castrodale@alaska.gov
(907) 269-8000
PO Box 240249
Anchorage, AK 99524-0249

NATURAL RESOURCES

Division of Agriculture

Arthur Keyes
Director
arthur.keyes@alaska.gov
(907) 761-3867
1800 Glenn Hwy., Suite 12,
Palmer, AK 99645-6736

Alaska Department of Fish and Game (ADF&G): Although the primary focus at ADF&G is wildlife, the inevitable interaction between domestic species, wildlife, and humans keeps Wildlife Veterinarian Dr. Kimberlee Beckmen busy on many fronts. Dr. Beckmen is frequently called upon to determine the cause of death of free-ranging wildlife, or to investigate parasites and lesions found in harvested game animals. The OSV and ADF&G collaborate to perform avian influenza surveillance of wild and domestic birds in Alaska, and more recently also on the study of *Movi* in Alaska's domestic and wild sheep and goat populations. This study will help to determine the prevalence of this bacteria in domestic and wild flocks, and to develop a risk assessment of the potential of introducing the bacteria to populations that do not currently carry it *(see article on p. 6—7 of this newsletter, as well as the Summer 2017 and Fall 2017 issues of this newsletter for additional information about the study).*

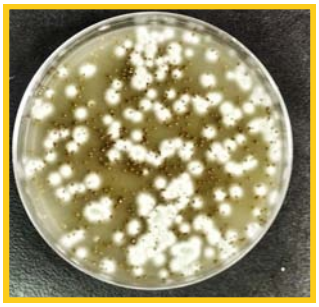
Dr. Beckmen says she enjoys the 'detective work' involved in monitoring the health status of the animals that are so important to Alaskans, but disease surveillance and diagnostic pathology are only part of her job description to enhance wildlife population health. She and other ADF&G biologists also assist state and federal agencies as well as academic partners with wildlife management and research. Dr. Beckmen is the Alaska State Wildlife Liaisons Officer and primary contact to coordinate with the OSV and USDA in the event of a foreign animal disease introduction or significant livestock disease outbreak.

The OSV also coordinates with ADF&G fish pathologists on surveillance and reporting of fish and shellfish diseases found in wild fish populations and at the numerous hatcheries across the state. There is also a focus on surveillance for invasive species (tick and other parasite surveillance, surveillance for tick-borne diseases, invasive aquatic and terrestrial species). A few years ago when there was a morbidity/mortality event involving ice seals in the Bering Sea, and when *Coxiella burnetti* was identified in fur seals on the Pribilof Islands, the OSV coordinated with ADF&G, NOAA, USFWS, and USDA to perform the necessary epidemiological investigation.

Alaska Department of Health and Social Services (DHSS): Within the Division of Public Health, Dr. Louisa Castrodale is the State's Public Health Veterinarian and Acting Manager of the Infectious Disease Program. In her position, Dr. Castrodale consults with Drs. Beckman and Gerlach on the interaction between animals and public health, investigating instances of zoonotic (transferable between humans and animals) disease

STATE AGENCY VETERINARIAN NETWORK

Continued from p.8



outbreaks like rabies, tick-borne diseases, tularemia, brucellosis, trichinellosis, and foodborne illnesses from domestic and wild animal products. Dr. Castrodale, Dr. Gerlach and Dr. Beckmen have coordinated with the USDA and CDC on a project to increase the surveillance of rabies in wildlife across Alaska using a CDC-licensed field test. Another collaborative project amongst the state agency veterinarians involves surveillance for *Cryptococcus gattii* in domestic animals and wildlife as a result of a case diagnosed in the Anchorage area. This invasive tropical fungus was brought to Vancouver on some tropical plants and bedding in 1991 and has since spread across the Pacific Northwest as far south as southern California and northwards through British Columbia. This respiratory fungus has infected a number animal species and is also a zoonotic threat, although not specifically confirmed to be present in Alaska.

Alaska Department of Natural Resources: In order to continue to grow the agricultural industry in Alaska, specifically the expansion of livestock (cattle, bison, yaks, pigs, sheep and goats) and poultry used for food production, the Department of Natural Resources Division of Agriculture is requesting in-house veterinary expertise as part of the Fiscal Year 2019 Governor's Budget. Boosted by the increased demand for locally produced meat, Alaska has seen a tremendous increase in the importation of food animals in recent years. The Division of Agriculture is currently meeting with livestock industry representatives to determine their highest priorities and needs to foster growth in this sector.

Questions or ideas about this position and livestock industry needs can be directed to the Division of Agriculture (see side bar for contact information). The OSV looks forward to this addition to the veterinary network in Alaska.

Confidentiality of Animal and Crop Records

In addition to supporting the agriculture community with the addition of a veterinarian at DNR, Governor Walker recently introduced **HB315 and SB164 *Confidentiality of Animal & Crop Records***. For a farmer in Alaska and for any person owning an animal, certain information must be disclosed to comply with state and federal rules. Animal importation paperwork and crop and livestock diagnostic test results are common types of records that must be sent to the State, and are currently considered public records under state law. This creates privacy concern amongst some pet owners. It also creates a considerable competitive disadvantage for a farmer and has the potential to negatively impact the agricultural community. Similarly situated business owners in other sectors of food production in Alaska are allowed to keep this type of information out of the public domain (commercial fishing, e.g.).

The Department of Environmental Conservation is advocating for the passage of the bill this session. If you have any questions about the bill, please contact Dr. Gerlach.

If you would like to keep track of committee hearings and other opportunities for you and your stakeholders to comment, the website is http://w3.legis.state.ak.us/.

Want to Live Longer? Get a Dog!

Original Article: http://www.cnn.com/2017/11/17/health/dog-owners-heart-disease-and-death/index.html

A recent Swedish study found that dog ownership is associated with a reduced risk of cardiovascular disease and death. The study included 3.4 million Swedish adults between 40 and 80 years old.

This effect is particularly pronounced for those who live alone, with a 33% decreased risk of death in general, and 36% decrease of death by cardiovascular disease compared to an 11% and 15% decrease, respectively, for those in multi-family households.

While there is still much work to be done to determine the reasons for the health benefits observed, the authors postulate that the effect may be due to dog owners' increased physical activity, feelings of social well-being, immune development, and even the effect owning a dog might have on your internal microbiome (the bacteria living in your gut).

Whatever the reason, the results are clear—your dog is good for your health!

OVERVIEW

Dairy products are a wholesome, nutritious product for the whole family. Unfortunately, their high nutritional content also makes them an ideal environment for bacteria to grow, including pathogens that can make humans sick. At the turn of the century, these illnesses included brucellosis and tuberculosis, as well as *Coxiella burnetti*, which causes Q fever in humans.

Although brucellosis and tuberculosis have largely been controlled or eliminated in domestic livestock herds, other milk pathogens still present a significant health risk to humans. These bacteria include *Staphylococcus aureus*, *Streptococcus* sp., *Listeria monocytogenes*, *Salmonella* sp., *Yersinia enterocolitis*, *Campylobacter* sp., and *Escherichia coli* O157:H7.

Counting bacteria in dairy samples.

ALASKA'S DAIRY PROGRAM

All dairy products sold commercially in the State of Alaska must meet the Grade "A" requirements outlined in the Pasteurized Milk Ordinance (PMO) and be pasteurized. Pasteurization is the process of heating a liquid to just below the boiling point for a specified amount of time in order to destroy pathogenic microorganisms. According to medical doctor, researcher, and public health official Milton J. Rosenau, "Next to water purification, pasteurization is the most important single preventive measure in the field of sanitation."

A recording thermometer is used to monitor milk temperature during pasteurization.

Pasteurization has a long history, dating back to when it first became commonplace in the late 1800s in Europe, and the early 1900s in the United States. Even at that time the public had begun to recognize the number of illnesses associated with dairy products, and were taking action to prevent them. Chicago was the first city in the United States to pass a 1908 law requiring pasteurization of milk products sold into commerce, and was soon followed by New York City which passed a similar law in 1914. While drafting the 1924 Alabama Milk Code, Alabama requested assistance from the United States Public Health Service to write an ordinance that would help to standardize the treatment of milk for sale in their state. Known today as the PMO, it has been adopted by all 50 states.

In 1946, the Conference of State and Territorial Health Officers requested the U.S. Public Health Service develop a plan for the certification of interstate milk shippers. Representatives from several Midwestern states gathered together and determined a national conference would be held to discuss the problems they had observed, and create a formal system for regulating the interstate shipment of milk products. The first meeting of the National Conference of Interstate Milk Shipments (NCIMS) was held in 1950, and included representatives from state governments, as well as the dairy industry. The NCIMS still exists today, and is still a cooperative state-federal-industry program that helps ensure a safe and wholesome supply of milk and milk products, and uniform standards between states for inspections and laboratory results.

The adoption of pasteurization, and the collaborative efforts between government and industry have made enormous advances in ensuring the safety of the milk and milk products sold in the United States. In 1938 milk products were the source of 25% of all food and waterborne illnesses, but by 2015 dairy accounted for only 3% of foodborne illnesses in the United States, with unpasteurized dairy products comprising 93% of these outbreaks. This means that the pasteurized dairy products you purchase at the store are generally very safe. This tremendous public health achievement was accomplished through a dedicated, collaborative effort among state, federal, and industry partners.

Dairy Sanitarian Barb Hanson inspects the milk bottling equipment at a local dairy.

How is the OSV involved?

The OSV manages Alaska's dairy regulatory program in accordance with the FDA's Grade "A" PMO, which has also been adopted into Alaska's state regulations, to ensure that milk and milk products sold into commerce are manufactured, sold, and delivered in a safe and wholesome condition. Under the oversight of a veterinarian, a requirement of the PMO, the program inspects animal health and care conditions at the state's dairy farms, verifies the sanitary condition and proper operation of the facility and equipment at milk processing plants, and issues permits to dairy farms, processing plants, and milk haulers. While the FDA provides approval of state dairy programs, individual states that desire to have a commercial dairy industry are expected to maintain regulatory dairy programs in accordance with the PMO – there is no federal dairy program in place to support states without one.

ALASKA'S DAIRY PROGRAM

Continued from p.10

Without an FDA-approved state program, commercial dairy operations would be unable to sell products to institutions that receive federal funds to subsidize meal programs (military, schools, prisons, etc.), or to sell products interstate. Also, since they would not meet Grade "A" dairy requirements, they would be not be able to sell products to national retail chains whose corporate standards require Grade "A" certification.

The production and processing of milk is an extremely complex process that requires knowledge of animal health, animal husbandry, food safety and sanitation, the function and operation of milk collection equipment, and an understanding of the mechanical processing of milk products and the operation of the pasteurization equipment.

The DEC dairy program includes three primary components:

- Staff at the OSV carry out responsibilities of the Veterinary Medical Officer and the Dairy Sanitarian duties as required by the PMO. Our Environmental Health Officer (EHO), Barbara Hanson, is designated as the primary Dairy Sanitarian for the state. This position is responsible for doing on-site inspections of the processing plants and the individual farms, testing and validation of pasteurization equipment, and regulatory sample collection of milk and milk products for compliance testing. The Dairy Sanitarian is overseen by the Assistant State Veterinarian, Dr. Sarah Coburn, who also has the training requirements and certifications so she may act as backup should the primary Dairy Sanitarian be unavailable.
- As the FDA-approved State Central Dairy Laboratory, the Environmental Health Laboratory (EHL) performs regulatory testing of milk, milk products, and milk containers. The testing performed by the EHL allows to the Dairy Sanitarian to ensure the milking process and equipment have been maintained in a sanitary manner, the milk products are free of antibiotic residues, the pasteurization process was adequately completed, and to verify the quality of the milk and health of the cow who produced it. EHL analysts must maintain testing proficiency and each analyst must pass annual FDA third party proficiency tests. Cross purposing the dairy samples, the EHL also performs continuous surveillance testing for brucellosis for the dairy industry in Alaska. This surveillance, in addition to the OSV surveillance at the slaughter facilities, is critical to Alaska maintaining its brucellosis-free status, especially since Alaska does not have consistent on-farm testing for that disease.
- EHL also maintains a third party laboratory approval program, which evaluates and certifies the screening labs located and operated at each dairy facility. Dairy industry screening labs must be approved by the EHL Dairy Laboratory Evaluation Officers (LEOs), and each LEO is required to attend FDA training and be evaluated by FDA before obtaining credentials. The LEOs perform technical assistance, prepare industry splits (proficiency samples) annually, travel on-site to review laboratory and analyst practices, and submit reports of observations and recommendations to FDA. There are currently two FDA-credentialed Dairy LEOs at the EHL, although dairy laboratory certification is just a small portion of their duties.

Beyond production of dairy products (milk, cream, butter, cheese, whey, buttermilk, milk powder, and yogurt), dairy farms provide jobs for herdsmen, milkers, truck drivers, marketers, and container manufacturers. They rely on many local businesses to buy bedding, feed, and fuel; and provide meat and cattle, as well as milk, to local buyers. They are an integral part of the agriculture landscape, food production, and economy of the area. The OSV and EHL are proud to support the dairy industry in Alaska, and to be a voice for Alaska at the biennial NCIMS.

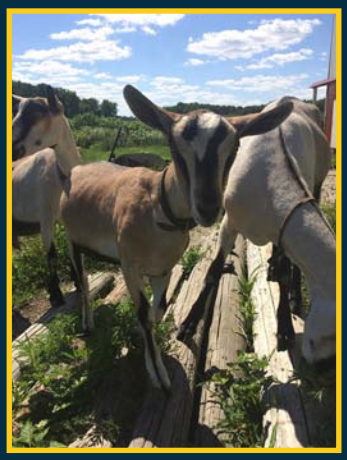
BRUCELLA IN RAW MILK

Brucellosis is a bacterial, zoonotic disease. Typically Brucellosis affects animals, but can cause disease in humans through consumption of raw milk products, or from close contact with infected animals. Symptoms include fever, sweat, chills, headache, fatigue, muscle and joint pain, and pregnancy complications, including miscarriage. Long-term issues such as arthritis, meningitis, enlargement of the liver and spleen, or heart problems may also occur.

Towards the end of 2017, several instances of antibiotic-resistant *Brucella* infection were traced to raw milk sold in the Lower 48. Although no *Brucella* infections have been identified in Alaska at this time, if you choose to consume raw milk, it is important to keep in mind that pathogens such as *Brucella* as well as many others may be present. Inform your doctor if you show any signs of illness, and avoid unpasteurized products, especially if you are considered high risk (pregnant, weakened immune system, etc.).

https://www.cdc.gov/media/releases/2017/p0915-raw-milk-brucella.html

https://www.fda.gov/Food/RecallsOutbreaksEmergencies/Outbreaks/ucm585655.htm



WE'VE GONE GREEN!

In an effort to conserve our natural resources and reduce waste, printed hard copies of our newsletter will be provided *by request only*.

If you would like a printed copy for your office or organization, please let us know and we will be happy to mail one to you!

Otherwise, please enjoy (and share!) our newsletter electronically by subscribing to our listserve, or visiting our website.

UPCOMING EVENTS

Pacific Fisheries Technologists Conference (pftfish.net)	Alyeska Resort Girdwood	February 5—7, 2018
Alaska Forum on the Environment (www.akforum.org/afe)	Dena'ina Center Anchorage	February 12—16, 2018
Produce Growers Food Safety Workshop	Kodiak City Library Kodiak	February 15, 2018
Chicken Health and Safety Class	Alaska Garden & Pet Supply, Inc. Anchorage	February 17, 2018
Produce Growers Food Safety Workshop	Palmer Library Palmer	February 21, 2018
Alaska Farm Forum	Delta Junction	February 24, 2018
NASDA Consortium Annual Meeting for Produce Safety	Irvine, CA	March 6—8, 2018
Kachemak Bay Science Conference (kbayscience.org/)	Islands and Ocean Visitor Center Homer	March 7—10, 2018
Produce Growers Food Safety Workshops	Juneau, Sitka, and Haines	March 18—24, 2018 (exact dates TBD)
Southeast Alaska State Fair (www.seakfair.org/)	Haines	July 26—29, 2018
Deltana Fair and Music Festival (www.deltanafair.com/)	Delta Junction	TBD
Tanana Valley State Fair (www.tananavalleyfair.org/)	Fairbanks	August 3—11, 2018
Kenai Peninsula State Fair (www.kenaipeninsulafair.com/)	Ninilchik	August 17—19, 2018
Alaska State Fair (www.alaskastatefair.org/)	Palmer	Aug 23 — Sept 3, 2018

Subscribe to the OSV Newsletter!

To receive future issues and occasional updates from the OSV, be sure to subscribe to the listserve at http://list.state.ak.us/mailman/listinfo/akstatevetnews.

If you have topics or events you would like included or have additional suggestions for the newsletter content or format, please feel free to contact us at akstatevetnews-owner@list.state.ak.us.