

Meeting Minutes: Quarterly Board Meeting

Date: February 8, 2023

Location: Best Western Plus Kelly Inn, 100 4th Ave. S., St. Cloud, MN 56301 and teleconference on Microsoft Teams

Attendance

Board Members

- Erica Sawatzke, President
- Peggy Anne Hawkins, Vice President
- Dean Compart
- Jessica Koppien-Fox
- Alex Stade
- Jim Vagts

Consultants to the Board

- Michelle Carstensen, Minnesota Department of Natural Resources
- Michelle Medina, Minnesota Department of Agriculture
- Laura Molgaard, University of Minnesota College of Veterinary Medicine
- Albert Rovira, University of Minnesota Veterinary Diagnostic Laboratory
- Stephan Schaeftbauer, USDA Animal and Plant Health Inspection Service (APHIS), Veterinary Services
- Joni Scheftel, Minnesota Department of Health

Guests

- Karina Burger, USDA APHIS, Veterinary Services
- Jerry Campbell, Elk producer
- Carol Cardona, University of Minnesota College of Veterinary Medicine
- Katie Cornille, Veterinarian
- Nikki Deyle, Minnesota AgriGrowth
- Jenna Fier, USDA APHIS, Veterinary Services
- Mike Fier, USDA APHIS, Veterinary Services
- Scott Fier, Deer Producer
- Todd Froberg, Minnesota Department of Natural Resources
- Michael Frye, Office of Animal Protection - Author
- Katlin Gralish, USDA APHIS, Veterinary Services
- Paul Haag, Minnesota Pet Breeders Association
- Nicholas Haley, Midwestern University
- Elaine Hanson, Minnesota Pet Breeders Association
- Brenda Hartkopf, Elk Producer
- Deb Holthaus, Deer Producer
- Lucy Hunt, Minnesota Department of Agriculture
- Scott Josephson, Veterinarian
- Ashley Kohls, Minnesota Turkey Growers Association
- Sandra Larson, Minnesota Department of Agriculture
- Dale Lauer, Veterinarian
- Greg Moulton, USDA APHIS, Veterinary Services
- Michael Oehler, Minnesota Department of Natural Resources
- Nicole Neeser, Minnesota Department of Agriculture
- Mackenzie Reberg, USDA APHIS, Veterinary Services
- Jill Resler, Minnesota Pork Producers Association
- Paige Palomaki Veterinary student

- Pat Rivers, Minnesota Department of Natural Resources
- Scott Salonek, Deer Producer
- Lucas Sjostrom, Minnesota Milk Producers Association
- Kelly Straka, Minnesota Department of Natural Resources
- Mark Volk, Deer Producer
- Jena Wasche, Office of Animal Protection - Author
- Kenneth Williams, Deer Producer
- John Zanmiller, Bluffland Whitetails Association

Staff

- | | | | |
|--------------------|-----------------------|------------------------|-------------------|
| • Marion Garcia | • Carissa Allen | • Susan McClanahan | • Betsy Lempelius |
| • Erik Jopp | • Laura TeBrake | • Tony LaBarre | • Duane Fox |
| • Courtney Wheeler | • Erin Crider | • Diane Englin-Elliott | • Jason Cater |
| • Brian Hoefs | • Addie Evans Engelke | • Brad Peterson | • Allison Pollock |
| • Veronica Bartsch | • Jessica Aho | • Tim Schulz | • Robert Predmore |
| • Myah Walker | • Lisa Ehlen | • Nancy Reeck | • Heather Damico |
| • Shauna Voss | • Bekah Weitz | • Bliia Kha | • Sue Chapman |

Call to Order/Approval of Minutes and Agenda

Ms. Erica Sawatzke called the meeting to order. After introductions, she asked for a motion to approve the draft minutes from the December 6, 2022, quarterly meeting. Mr. Alex Stade made the motion, and Dr. Peggy Anne Hawkins seconded it. Ms. Sawatzke called for a vote to approve the motion, and all board members voted aye.

Ms. Sawatzke then asked for a motion to approve the agenda. Dr. Jessica Fox made the motion to approve the agenda, and Mr. Dean Compart seconded it. Ms. Sawatzke called for a vote to approve the agenda, with all board members voting aye.

CWD Predictive Genetics Research

Dr. Nicholas Haley, College of Graduate Studies at Northwestern University, presented on an overview of his research on selective breeding of white-tailed deer (WTD) to reduce Chronic Wasting Disease (CWD) prevalence. He gave a brief overview of CWD in North America, with CWD currently detected in 28 states and 4 Canadian provinces.

CWD is a prion disease that results from the transmission and accumulation of a misfolded protein. All animals have a normal version of the prion protein, but only some (cattle, sheep, cervids, people, etc.) are susceptible to prion diseases. The prion gene (PRNP) in these animals directly modulates prion disease susceptibility. Research on Creutzfeldt-Jakob disease (CJD), Kuru, and scrapie have all discovered PRNPs that increase resistance to these diseases. Selective breeding for sheep with the resistant PRNP has resulted in the near elimination of scrapie in the U.S. over the past 15 years.

Several PRNP variants have been identified in WTD. None of these completely protect against CWD. Dr. Haley's research included looking at over 2,000 depopulated farmed deer, over half of which were CWD positive. They looked at the genotypes of the PRNP in these animals and plotted the stage of the disease in these and their odds of infection. The 96G genotype, which is present in 80 percent of farmed and wild WTD, has a very high CWD susceptibility. The 96S genotype, which is found in only 5 percent of WTD, has a relatively low susceptibility. The

95H genotype is found in very few WTD (less than 0.1 percent) has an unknown CWD susceptibility at this time. Dr. Haley noted that genes other than PRNPs may have an indirect effect on CWD susceptibility.

Dr. Haley described his project with a Wisconsin WTD producer, who had three CWD free premises (2 breeding facilities and 1 hunting location) and two CWD endemic hunting locations (one at 60 percent prevalence; one at 5 percent prevalence). The project began in 2017 by PRNP sequencing of the breeding deer and harvested deer at all locations. In 2018, the first fawns were born using selective breeding.

From there, they developed a three-phase plan to breed animals with CWD less-susceptible genes, with the goal of reducing CWD prevalence. In Phase 1, they bred deer with genes that were less CWD susceptible. The CWD endemic site that had 60 percent prevalence in 2018 depopulated its herd in 2020 and was restocked with genetically less susceptible animals. The other endemic herd did not depopulate and introduced genetically less susceptible animals. The herd that was depopulated and restocked had greatly reduced prevalence in 2020 and no prevalence in 2021. The other herd had increasing prevalence through 2020, and then decreased in 2021. Dr. Haley expects the prevalence to continue decreasing as more animals with varied CWD less susceptible alleles are introduced and bred.

Phase 2 began in 2021, which involves surveillance with focus on genotype, time on the premises, age, sex, and disease stage of animals. They are examining how genotype affects longevity and disease progression, the role of animal-to-animal transmission, and whether or not an age cut-off is required for adequate disease management. Phase 3 is planned to start in 2024, with a focus on testing improvements and prion adaptation

Dr. Haley shared several common criticisms of selective breeding and his responses, backed by research findings. For discussion details, please visit our [meeting recording on YouTube \(https://youtu.be/vouDE9xqhqw\)](https://youtu.be/vouDE9xqhqw), discussion starts at 26:42.

Dr. Haley discussed future directions in genomics and selective breeding. Dr. Chris Seabury has ongoing genome-wide association studies looking at tens of thousands of genes to find other genes that affect CWD susceptibility. Dr. Seabury is working on developing a breeding value scale to breed WTD for less susceptibility. As more and better data is collected, the breeding values will become more refined. The test to assign a breeding value to an animal is costly, and the results do not bring immediate rewards, but he encouraged producers to consider participating in this study.

Dr. Scott Josephson asked if it's possible to decrease CWD susceptibility by "stacking" a resistant gene in an allele with a gene that is not as "resistant." Dr. Haley said it is not possible to "stack" an allele with two different genes, but they could exist in different alleles in the same animal, which, in theory, would decrease its CWD susceptibility.

Dr. Courtney Wheeler asked if, in Phase 3, Dr. Haley's group is considering validating new tests, like RT-QuIC, for use in identifying CWD in animals with rare PRNP alleles. Dr. Haley said he is a proponent of RT-QuIC and plans to work with it on this project. He thinks if they need to make modifications, it will be easier to work with RT-QuIC than with the current IHC test.

Dr. Wheeler asked if they are looking at other types of samples, like soil or feces. Dr. Haley said they published a paper on environmental samples a few years ago, but there are no ongoing studies on environmental samples at these premises. He invited anyone interested in such research to talk to the owner of the farm, as he is open to new studies to help learn more about CWD.

Dr. Wheeler asked if, during Phase 3, they will put other species on the infected prems to study their CWD susceptibility. Dr. Haley said they had no plans for that. The producer has sent Dr. Haley lymph nodes from every animal harvested on his property. Dr. Haley has these samples frozen and will send them to labs that would like to study CWD susceptibility in other species.

Dr. Jessica Fox asked if Dr. Haley had decided to try selective breeding in WTD because it worked with scrapie in sheep. Dr. Haley confirmed this. Dr. Fox then asked if they have seen adaptations in other prion diseases. Dr. Haley said not in nature, but it has happened in the laboratory. He said hamsters inoculated with scrapie made other species susceptible to scrapie. He said that more genotypes with decreased susceptibility are appearing more often in places where CWD is endemic, and he stressed the importance of learning if CWD can adapt to different genotypes as soon as possible to be prepared.

Dr. Fox then asked if different variants of CWD exist. Dr. Haley said at least three different variants of CWD have been found in lab experiments where mice were inoculated with CWD. All that is known is that the variants look different in the mice; more research into these variants is needed. Mr. Compart said the legislative hearing yesterday referred to 7 different variants. Dr. Haley said there are several research papers published that refer to different variants. These research projects had different approaches, so the writers may be referring to the same variants without knowing it.

Dr. Wheeler asked for Dr. Haley's thoughts on spontaneous CWD cases. He said the problem is there are many transmissible cases in the area, so it is not easy to prove that any case is spontaneous.

Mr. Compart asked about the process the herd owner is going through on the site that was depopulated 2019 and repopulated. Dr. Haley said the herd was depopulated in winter 2019, and the herd owner put deer with known genotypes in the facility a few months after that. All of those deer were harvested and tested for CWD six months later. Then he released new WTD, which were there for 18 months and then harvested and tested. Each time he releases new animals, they will be there for a longer time. If the animals get CWD, they will only be getting it from the environment, not from infected animals in the herd. Also, they can see how long it takes the animals to test positive for CWD.

College of Veterinary Medicine Update

Dr. Laura Molgaard stated the USDA is working on a licensing agreement to use 3-D models of deer heads created by the Minnesota Center for Prion Research and Outreach (MNPRO). These full-size models were made from high-resolution scans of actual deer heads. The USDA will use these to help train their staff in locating the lymph nodes and brain stem for CWD testing. You can view these models on the [MNPRO available products webpage](#).

The Centers for Disease Control (CDC) has established a Pathogen Genomics Center of Excellence (PGCoE) Network, which is intended to improve the public health system's response to infectious disease threats. There are five PGCoEs being established around the country, and Minnesota has one, headed by the Minnesota Department of Health (MDH). The College's Dr. Tim Johnson will use MDH's data and isolates to see if predictive tools can predict high-risk strains or human outbreaks.

The College is experiencing a critical faculty workforce shortage that is affecting both their clinical and educational missions. One reason they are having difficulty recruiting new faculty is the Minnesota Veterinary Practice Act, which does not allow the College to consider candidates trained at international veterinary schools. The College is working to change the Practice Act to allow the College to create an institutional license for international hires that

would be revoked if they were to leave the College. A bill to change the Practice Act has been introduced in the House and is awaiting a hearing. The College is also talking with MVMA and the Minnesota Board of Veterinary Medicine to gain support for this change.

The College is making investments in infrastructure improvements, including a new Transformational Learning Corridor for students and an interventional radiology suite for clinical service.

Dr. Molgaard shared dates for a few major upcoming events, including the white coat ceremony on April 22, commencement on May 13, and the College's 75th Anniversary Gala on May 8.

Cattle Program Update

Dr. Wheeler began by sharing that, due to her promotion to Assistant Director, the Board has hired a new Cattle Program director, Dr. Katie Cornille, who starts on February 27. Other Cattle Program staff are Bekah Weitz, Nancy Reeck and Avrey Bergum.

Dr. Wheeler discussed various common cattle diseases. Bovine Tuberculosis was a very prevalent and detrimental disease in the past, and the Board continues to test animals for it. Tuberculosis (TB) was eradicated from Minnesota in 1971 and 2011. Today, prevalence of TB is low due to caudal fold testing. In FY 2022, veterinarians tested 5,634 cattle, and 20 required follow-up testing from the Board. All animals were found to be TB-negative.

Brucellosis was a disease the USDA has worked to eradicate from the U.S. since 1934. Minnesota was given a Brucellosis Class Free status in 1985 and has maintained it through present day. Brucellosis is now primarily found in the Greater Yellowstone Area of Idaho, Montana and Wyoming, where it is endemic in wild elk and bison. Cattle over 12 months of age can be vaccinated for Brucellosis.

Mr. Compart asked why cattle would be vaccinated for Brucellosis if Minnesota is free of the disease. Dr. Wheeler said the vaccination is required for movement. Mr. Stade added that many shows require Brucellosis vaccinations.

Johne's Disease affects an animal's small intestines and is very hardy in the environment. The biggest concern with Johne's is financial loss, with an average loss of \$30/cow and up to \$127/animal. The Board has 19 herds in its Johne's testing program. Ms. Sawatzke asked why there are only 19 herds in the program. Dr. Wheeler said producers must pay for the testing. Many producers manage disease in their herds well, which is cheaper than the testing program. Mr. Stade asked if those 19 herds were infected before. Mr. Lucas Sjostrom stated that every herd has had some level of Johne's in the past.

Anthrax is a naturally occurring disease of animals caused by bacteria in the soil that is likely ingested while grazing. It is not spread by animal-to-animal contact like many other livestock diseases. Animals may die before showing any clinical signs. In rare cases, humans can contract anthrax from handling or eating infected animal products. Since 2000, all positive anthrax cases in the state have been in the northwest part of the state, the last reported case of anthrax was in 2013.

Dr. Wheeler transitioned to discussing animal disease traceability (ADT) and electronic certificates of veterinary inspection (eCVIs). Official ID tags are mandatory for all species and most cattle. This allows state animal health officials to trace individual animals in the event of a disease detection. This is why it is important for producers, markets and veterinarians to keep accurate records.

Dr. Wheeler shared an example of “Clara,” an unidentified cow who was moved to a market and potentially sold to any of four farms, one of which sold cows to five other farms. Many cows end up being tested because it is impossible to know which one is Clara. Official identification would have saved immense state time and resources.

To assist farmers and stakeholders with improving ADT, the USDA is working toward national use of Radio Frequency Identification (RFID) tags. The Board has a supply of RFID tags and tag readers to distribute to producers and veterinarians upon request. Cattle and bison producers can also request free tags through the USDA’s no-cost program for RFID in replacement heifers.

Another important tool used by veterinarians and animal health officials to verify the health of animals and track their movement is a Certificate of Veterinary Inspection (CVI), which is required for interstate movement. The Board is encouraging veterinarians to transition to eCVIs to save time and resources and to improve the efficiency of Minnesota’s ADT program. In 2022, the Board processed 22,477 export CVIs, with 12,746 of these being eCVIs. Dr. Wheeler showed a breakdown of costs of paper CVIs versus eCVIs, taking into account document, personnel hours and maintenance costs. The total annual cost for paper CVIs is \$32,470; total annual cost for eCVIs is \$9,430.

Dr. Wheeler stated many U.S. states have already moved to mainly using eCVIs. They are cost effective and efficient, and Minnesota is not using them enough. The Board is making plans to select an eCVI vendor with whom to partner to offer use of eCVIs free to Minnesota veterinarians. The goal is to phase out paper CVIs, preceded by notifications and education on how to use eCVIs.

Scott Salonek asked if all cervids will be expected to have RFID tags. Dr. Wheeler said, while that would be very helpful, there are no plans to require cervids to have RFID tags.

Mr. Sjostrom asked about the cost for the eCVI program. Dr. Wheeler said she does not have a cost estimate yet, but its cost will be less than the overall cost of using paper CVIs.

Mr. Compart asked if other states are doing for eCVIs. Dr. Wheeler said Ms. Weitz contacted several other states to see what they are doing, and the eCVIs are different from state to state. Whatever the Board decides to do, it needs to be approved by the USDA before moving forward.

Legislative Update

Ms. Michelle Medina stated the Governor’s budget recommendations include three line items for the Board. The first is \$166,000 in FY 2024 and \$332,000 in each subsequent year to maintain the current level of service delivery. The second is an additional \$360,000 in FY 2023 and in each subsequent year for the Board’s Emergency Preparedness and Response fund. The third recommendation is \$173,000 in FY 2023 and in each following year to process companion animal import quarantines.

The Board has testified at two different legislative ag committees in the past month. On January 9, the Board gave an overview of its work to the Senate Ag Committee, and on February 7, they gave an overview of HPAI and African Swine Fever (ASF) to the House Ag Committee, and Dr. Wheeler provided an update on CWD to the Joint Senate Environment, Climate, and Legacy and House Committee on Environment and Natural Resources Finance and Policy.

Several bills that involve the Board have been introduced. HF 911 (no Senate companion) would modify the makeup of Board members. HF 1202 (no Senate companion bill) would make several modifications to the Farmed Cervidae program.

SF 1136 (companion HF 1168) would establish a Companion Animal Board, which would take some duties away from the Board. This bill was referred to the Committee on Agriculture, Broad band, and Rural Development.

SF 1411 (companion HF 1850) would create an Office of Animal Protection.

HF 1401 (no Senate companion) would modify requirements for farmed white-tailed deer. This was read for the first time and referred to the Committee on Agriculture, Finance and Policy.

Dr. Hawkins asked if Ms. Medina had a feel for which bills may move forward during this session. Ms. Medina said it is too early to tell. All bills need to be heard in committee before March 10. HF 1202 is scheduled for a hearing today at 3:00. The others are not on the schedule, but there is still time. They all have good support from both the House and Senate.

Mr. Salonek stated that HF 1202 requires producers to use RT-QuIC testing for their herds. He asked if legislators know this is not a USDA-approved CWD test. Dr. Wheeler said they are aware of this, and she will reiterate this during today's hearing, given the opportunity. She also said the bill does not clarify how the test will be performed or paid for. RT-QuIC is a rectal biopsy test, and each test costs \$90. Mr. Salonek also commented the bill requires double fencing when it's been shown that this does not prevent CWD. Those who own land on which a wild CWD positive case are not required to double fence their property or disclose to potential buyers that CWD was found on their property. Mr. Compart asked if the bill included language regarding compensation for fence construction costs. Ms. Medina said there is no funding for compensation in the current bill language.

Dr. Josephson stated new research from Dr. Scott Wells shows that it appears that with incidents of CWD on farms, the prion likely was introduced into a herd by a scavenger that fed on a CWD-infected wild deer, then gained access to the containment pen. This may be the situation in 70 percent of cases. Double fencing is likely an unnecessary step and expense for producers. Dr. Wheeler said the required double fencing was a request from tribal partners.

Dr. Fox commented that this bill requires use of a specific vendor's test. This is something that would need to be opened for bids. She also strongly encouraged all producers to go to the legislative hearings and bring stories to tell. They should not depend on others to speak for them.

Farmed Cervid Production Overview

Ms. Brenda Hartkopf provided an overview of a year on her family's elk farm. In December through February, the elk are on a maintenance diet, just as they would have in nature. They are fed a lower quality of hay and get a loose mineral supplement. Winter is the time when they take care of paperwork, such as their TB accreditation and Brucellosis certification. They also handle deworming, herd inventories, secure trophy bull contracts, and participate in political activities. They do pregnancy testing, move the cows after the first trimester, and sell bulls without antlers. This is the first opportunity to see antlers on the elk.

In March and April, they start increasing feed and hay quality and introduce grain again. They prepare for antler growth and calving and vaccinate cows. They record the date each bull drops their buttons (beginnings of antlers)

and decide which bulls will grow out their antlers and which ones will be velveted. Then they are sorted accordingly.

May through June is calving season. They move cows to summer calving pens, tag the calves each night, and monitor the cows closely. They determine when to cut the antlers on velveting bulls. Cutting is done in the evening in their handling facility. She showed photos of their facility, squeeze chute and recently removed velvet. Antlers are inverted and frozen. Once they are all collected, they are sold.

In July and August, they prepare and finalize paperwork for moving bulls, breeding and trophy bull sales, and velvet sales. The bulls are scraping off their velvet by early August and they cut and score the hard antler. Time is also spent at antler competitions and hauling trophy bulls.

September and October are breeding season. The calves are weaned and vaccinated Labor Day weekend, and the cows are placed in breeding pens. They do artificial insemination, sort meat animals (mostly cows) from breeding animals and draw semen. Breeding season ends in early November. They remove the breeding bulls, sort the cows, and place them in winter pens. They remove grain from the animals' diet on December 1.

Mr. Compart asked if the majority of their CWD testing is done when they cull the cows. Ms. Hartkopf said that is correct.

Dr. Wheeler asked to whom they sell their velvet. Ms. Hartkopf said Mr. Salonek and others come to her farm to buy it, and then they sell to others so they can make supplements.

Ms. Sawatzke asked how they tag their calves. Ms. Hartkopf said they wait until the calves are weaned, as it is much easier to do at that time. At the same time, they do DNA testing to know the identity of each animal. Mr. Compart asked what they would do if they were required to tag animals at birth. Ms. Hartkopf said the small NUES tags would work well.

Mr. Scott Fier then gave an overview of his family's work as white-tailed deer producers. In January, February and March, he feeds the animals good quality hay. He orders tags for the newborn fawns, changing the color of the tags every year. He checks his vaccination protocol, which does not change much from year to year. He also puts lime down to help neutralize the soil near the feeders and waterers.

By mid-May, the does begin having their fawns, which weigh about 10 pounds each. While the does are typically calm, Mr. Fier waits 24 hours before touching them. After that, he tags them, sprays iodine on their navels and feet, and gives them vitamins. If he observes a mother not taking care of her fawn, he pulls the fawn to bottle feed it. He goes out to check the pens every two to three hours to match fawns with their mothers. During this time, the bucks are growing their antlers.

From June to September, the farm hosts many tours. Mr. Fier is marketing bucks to previous buyers and negotiating prices. They wean the fawns around September 1 and give them official ID. The fawns go back with their mothers for a couple more weeks to reduce stress. After that, they are weaned for good and are grouped together by age. Mr. Fier aims to have the bucks sold by the end of September.

During breeding season in October and November, they pick out deer for breeding that have good antler characteristics and the best genetics. In mid-November, he introduces one more bucks to make sure all the does are bred.

He discussed their work with the local community and their love for the animals. They buy fencing, feed, and vet supplies from local businesses. He and his family love every aspect of deer farming, but the last few years they have been fighting every day to keep their business alive. He expressed concern over making capital expenditures with the uncertainty of the industry.

Ms. Sawatzke thanked Mr. Fier and Ms. Hartkopf for speaking and sharing how they make their living. She said in the turkey industry, they have Checkoff dollars that go to fund research and industry promotion. She asked if cervid farmers have similar funding. Mr. Fier said there is no such funding available. She then asked if he could elaborate on the importance of Dr. Haley's research. Mr. Fier said this research is the lifeline to his farm's existence. Dr. Wheeler added the Board is individually calling Minnesota's deer farmers to participate in the genetic resistance research study.

Dr. Hawkins commented that the genetics research happening in captive deer is the hope for wild deer, as CWD is in the wild, and it is not going to stop spreading. What we can learn on farms is the hope for the future of hunting. Mr. Fier agreed, saying no one wants to solve CWD more than cervid farmers. He thanked the Board for their support.

Mr. Compart asked Mr. Fier if he sells breeding stock. Mr. Fier said he has not done so for several years, and that has been a major financial burden. His herd has been CWD certified since the program started.

Mr. Mark Volk said cervid producers spend a fair amount of money on lobbyists to keep them informed of what is happening at the Capitol. If that was not a concern, they could use that money to fund research programs. Mr. Fier said he started a business legally, and now he is being regulated out of business. If science is used, and deer farmers are allowed to work with their animals alongside researchers, they will do whatever they need to do to reduce or eliminate CWD.

Veterinary Diagnostic Laboratory Update

Dr. Albert Rovira shared that the Veterinary Diagnostic Laboratory (VDL) Director position is open for applications. He encouraged everyone to share the posting with potential candidates. They are also accepting applications for their Food Animal Diagnostician position. Dr. Rovira reported the VDL has hired for several positions in different sections and have only lost one staff person. They plan to ask the new hires how they learned about the VDL and the jobs.

Testing volume at the VDL has increased 9 percent over the last six months, compared with the same time frame last year. Testing is up in most sections. Based on feedback from veterinarians and diagnosticians, they have increased the frequency of bovine PCR testing from once per week to twice a week, as it was before the pandemic. Their lab technicians have completed required training for NPIP certifications.

The University's digester is old and breaking down more often. The VDL does not own the digester; they house and manage it for the University. In the last month, the University has shown interest in purchasing a replacement. The VDL is planning for what a new digester would look like.

The VDL is rethinking its necropsy training rotation schedule to prepare for the increased class sizes from the Two plus Two program beginning in 2024.

Minnesota Pet Breeders Association Overview

Ms. Elaine Hanson said the Minnesota Pet Breeders Association (MnPBA) was founded in the early 2000s and is a volunteer membership organization open to pet breeders of any kind. It is also open to those who do not breed pets. Ms. Hanson is not a breeder but is a member. It is also open to industry partners who supply services and equipment to breeders. The MnPBA offers a free two-day educational seminar, which includes presentations from the Board, in the spring that is open to all interested individuals. This year's training will be held April 20-21.

There have been many attempts to enact legislation that would control pet breeding. In 2014, a bill came forward that pet breeders could live with. This resulted in the Licensed Commercial Dog and Cat Breeder Program, which the Board oversees.

The MnPBA does not view the Board as an enforcer; they view them as a colleague. If a breeder is not doing something right, the Board gives them guidance to meet the required standards. If the breeder is not inclined to meet the standards, then the Board has enforcement actions to take.

The MnPBA has participated in discussions with the Board and others on developing a veterinary protocol for licensed commercial breeders and establishing the Breeder of Excellence program. More recently, there has been concern over animal rescue groups in Minnesota. There are estimated to be 300-400 rescues in the state. Currently, there is no oversight of this industry; all that is required is that they provide a CVI for each animal brought into the state. Many animals come with no medical history. The Minnesota Veterinary Medical Association requested the Board oversee these groups. In December 2021, the Board approved the formation of a task force, comprised of a variety of groups with different perspectives, to discuss what is needed to keep certain diseases and parasites out of the state. The task force has met periodically and will report recommendations to the Board at a future meeting.

Mr. Compart asked if there is a required timeframe in which the task force's work needs to be finished. Ms. Hanson said she believed the task force's lifespan is two years, though it could be renewed, if needed.

USDA Update

Dr. Stephan Schaeffbauer began with new CWD Herd Certification sampling options for producers who missed submitting a sample or submitted a poor-quality sample. In this situation, the USDA is offering a live animal sampling option that state animal health officials (SAHOs) can use in a white-tailed deer herd. Approval for this testing would only be granted after the Area Veterinarian in Charge (AVIC) and the SAHO review the previous three years of inspection reports and testing history. Records must reflect testing compliance of 95 percent or greater. The SAHO and AVIC must agree in writing that the herd meets the criteria for live animal testing. Dr. Schaeffbauer covered the USDA's guidance for testing herds with unknown and known genotypes.

The Animal Disease Traceability proposed rule change was published in the Federal Register on January 19, 2023, with an open comment period of 60 days. The primary change to this rule is the requirement that official ID tags for cattle and bison are readable both visually and electronically.

Dr. Schaeffbauer offered a brief Veterinary Services (VS) hiring update. They have a new Veterinary Medical Officer (VMO), Dr. Amanda Doran, starting at the end of the month. There are currently four vacant positions within Minnesota VS: Animal Identification Coordinator, Animal Health Technician, Program Assistant, and Epidemiologist. The Epidemiologist position is open for applications now. The USDA has formed a VMO Ready Response Corp, a set

of 12 permanent positions created to focus on avian influenza work in states most affected by HPAI. Minnesota is getting one of these positions, which will be based in a poultry-dense county. The position description is in process.

There was discussion on the new CWD Herd Certification sampling options and questions on how the USDA could approve use of a live animal test when there is no live animal test approved for official CWD testing. Dr. Schaeffbauer said the sample would be taken by rectal biopsy and would be tested using IHC, a process that has been in the USDA program standards since 2018. Dr. Garcia added that these samples must be collected by certified sample collectors, and there is only one person with this certification in Minnesota. Dr. Fox noted rectal biopsy sampling is invasive and requires the animal to be sedated, so it is expensive and comes with additional risk to the animal and producer. This is likely why it has remained an option and has not become a requirement. Dr. Garcia said the option is there to help a producer who has had a good testing history to keep his CWD certification in the event of a missed test or a bad sample. Dr. Schaeffbauer added that, while everyone wants an official live animal test like RT-QuIC, this is a step in the right direction.

HPAI Update

Dr. Erik Jopp stated there have been no new cases of HPAI since December 9, 2022. He showed the epidemiology curve since the outbreak began on March 25, 2022. Minnesota has had a total of 110 HPAI cases, including 83 commercial flocks and 27 backyard, non-poultry flocks. Most cases around the U.S. continue to be focused in areas with a high density of commercial birds.

HPAI continues to circulate in wild waterfowl, and the Board is anticipating it will return with the spring migration. The Board has ongoing response efforts, including its active HPAI hotline and online form to report sick birds. They also continue to work with the University of Minnesota Extension on outreach and educational resources.

The Board's plans moving forward include working with existing partners and their expertise in response efforts, exploring what might be accomplished by others to respond quickly and make more reasonable expectations for Board staff. Dr. Jopp stated there are several changes they are implementing as the USDA makes changes to their processes.

Ms. Sawatzke asked if the Board is doing anything differently than they did in 2022. Dr. Jopp said they are continuing to meet with poultry vets, continuing surveillance, and stressing biosecurity. She asked if the depopulation equipment is ready to be used. Dr. Jopp said the equipment is being maintained, and work has been done in the last two months. The Board is required to have 40 barrels of foam on site, and they currently have 44. Dr. Garcia added that they are talking with other states and discussing how to do things differently.

Ms. Sawatzke asked how many Kifco foam units they have on a positive farm. Dr. Jopp said that depends on the size of the barn.

Poultry Program Update

Dr. Shauna Voss explained the relationship between the Board and the University of Minnesota, who work together at the Minnesota Poultry Testing Laboratory (MPTL). The MPTL handles all the National Poultry Improvement Plan (NPIP) testing for the Board.

The Board authorizes people to collect poultry samples. This is done through participation in a Board-approved training program. The Board recently held a WEGBY course, and they are holding a commercial course tomorrow.

Attendees need to perform satisfactory work at the field school and submit samples to the MPTL for quality assurance. The Board currently has close to 900 commercial and backyard Authorized Poultry Testing Agents (APTAs).

Dr. Voss gave a brief overview of the NPIP and its biosecurity principles. The last of these principles is auditing. Producers must submit a paper audit to the Board every two years. This is important in an HPAI event because to receive USDA indemnity, the producer must have a biosecurity plan they are following and the date of their last audit.

Mr. Compart asked if there has been a “hot wash”—a discussion of what went well, what needs improvement, and other important observations—on the 2022 HPAI outbreak. Dr. Jopp said there was a hot wash after the spring wave, and they will be talking again with the individual case managers soon.

HPAI and the Poultry Industry

Dr. Carol Cardona shared a national view on the HPAI outbreak. Turkeys were disproportionately affected by HPAI, and backyard species had two surges in 2022, one in the spring and another in the fall. Commercial operations were more affected in the spring than the fall. Dr. Cardona said this may be because they were more prepared for the fall surge.

She showed a bar graph of the cases in the north, central and southern portions of the Mississippi Flyway and noted the southern portion had significantly fewer cases in commercial poultry and backyard flocks than the rest of the flyway. This was the case in all U.S. flyways. She then showed a pie chart of types of poultry affected by HPAI in the U.S. Turkeys made up 30 percent of cases, while backyard flocks made up 58 percent of cases, indicating that turkeys are highly susceptible, and birds without biosecurity protections are also susceptible.

HPAI is likely here to stay, either because it will continue to circulate through North American wild bird species, or because new strains will be introduced annually for the foreseeable future. There have already been introductions through migrations from Europe (2022) and from Asia (2015). However, cases do not have to occur at the rate they did in 2015 or 2022. The 2015 outbreak showed that HPAI farm-to-farm spread can be stamped out through rapid application of controls. In 2022/2023 outbreak, it appears many cases have occurred when HPAI entered the farm through wild birds or the environment. The biosecurity measures that are most effective against this spread are unknown, but there is evidence that it can help. Facilities that had outbreaks in 2015 had fewer outbreaks in 2022, and some had no cases despite being in areas with outbreaks.

Vaccination could be used to decrease transmission agents between birds, though the decision to do so is made at the federal level, as vaccination would lead to national trade disruptions. Dr. Cardona discussed how transmissible this HPAI virus in different commercial poultry species. One infected broiler chicken can infect up to 5.5 birds; one layer could infect 9.5 others; and a turkey could infect up to 17.2 additional turkeys. This makes HPAI more contagious than Zika virus (3 – 6.6) or measles (11 – 18) in people.

Dr. Cardona said we can work to reduce the number of HPAI cases by researching biosecurity measures to find what works to reduce transmission among birds. We can also use vaccines to augment protection against HPAI.

The global HPAI response could be improved someday. While we are obligated to follow set trade agreements, we have better tools now than when some of those agreements were put in place. Changes at the national level need

to happen first, but there may be a time in the future when we can consider targeted depopulation, where only some birds on a farm are depopulated.

She said the industry and regulatory authorities need to make plans that recognize HPAI will come back more frequently. We need to find a way to reduce case numbers within the current response process and then work to improve this process. The Board is currently making changes to shift some responsibilities to private industry to keep skilled staff from burning out. There also needs to be a focus on changing the rules for HPAI control to allow for stopping HPAI on a farm and to allow for vaccination.

Dr. Hawkins asked Dr. Cardona about her assertion that vaccination needs to happen and asked if it would take a while for the world to see that this is the best way to treat the domestic poultry population. Dr. Cardona said many political discussions would need to occur. Scientific research on HPAI vaccination shows it would reduce the spread of HPAI to other species, including people, and maintain the poultry supply. Current trade regulations say if a country uses vaccination, they have the virus, and trade with that country is blocked until they can prove they have no virus. This is outmoded thinking, as it is impossible to prove a virus does not exist if you do not have it. Trade rules should be based on risk, examining the probability of transmitting HPAI in different situations.

Dr. Fox said it seems that in the past, HPAI carried through waterfowl and did not affect them much. In 2022, waterfowl were very much affected, and many have died. She asked Dr. Cardona if this virus will continue to get more virulent in wild waterfowl. Dr. Cardona said it is hard to say, as there are so many different species of birds. Figuring out the level of transmission in each species is very time consuming. This also makes it difficult to tell if new transmission reservoirs are being established.

Minnesota Department of Health Update

Dr. Joni Scheftel stated the Minnesota Department of Health (MDH) has a new commissioner, Brooke Cunningham. She is an internal medicine doctor with PhD in Sociology.

Dr. Scheftel shared MDH's stance on CWD. It has been studied for decades, and there is no evidence that CWD has been transmitted to a human. However, there is still much that is unknown about this disease. There are no natural infections in domestic animals or livestock (except for deer and elk), but prion diseases have been transmitted to other species in the laboratory. For this reason, MDH does not recommend anyone consume prion-infected meat.

She mentioned MDH's surveillance for Creutzfeldt-Jakob Disease (CJD), another prion disease that occurs in humans. Five to seven Minnesotans get CJD every year, and for decades, MDH has looked for risk factors, abnormal infections, or clusters of cases and nothing has been found. MDH still recommends hunters have their deer tested for CWD, though this must be done at the hunter's expense.

Mr. Compart asked if CJD is spontaneous. Dr. Scheftel confirmed this, saying it often appears for no apparent reason. Mr. Compart asked how many people died from BSE. Dr. Scheftel said around 290 people died.

Board of Animal Health Update

Dr. Marion Garcia shared Board personnel updates. Melissa Jantzen was hired in January as the Board's new Business Manager. Dr. Wheeler is now the Assistant Director for Field Operations. With this change, the Board will now be looking to hire a senior veterinarian to oversee the Farmed Cervid Program. Dr. Katie Cornille will be joining the Board at the end of the month. She will oversee the Cattle Program and Livestock Concentration Points.

The Board still has several positions in the hiring process, including two district veterinarians, a Human Resources Specialist, and an Emergency Manager. Dr. Garcia said Ms. Marita Bliven, the Board's Finance Manager, is retiring this spring, so they are starting the hiring process for her position to give Ms. Bliven time to train the new hire.

The Minnesota Veterinary Medical Association (MVMA) Annual Meeting was last week, and many Board senior veterinarians had presentations during the meeting. They also had a "Just in Time" lunch series panel on the Board of Animal Health, which also included Drs. Scheftel and Schaeftbauer. Other recent outreach opportunities include presentations to the Minnesota Farm Bureau, Minnesota Elk Breeders Association, a talk to senior vet students about accreditation, a talk on how to be a successful county fair manager and a talk on biosecurity to state dairy inspectors.

Ms. Sawatzke asked about the status of the State Program Administrator Senior position formerly held by Annie Balghiti. Dr. Garcia recognized the importance of filling this position and said they plan to hire for it after Human Resources/Finance has a full team and the Tribal Liaison position is posted and filled.

Appreciation for Departing Board Members, Next Meeting and Adjourn

Ms. Sawatzke recognized Mr. Jim Vagts and Mr. Dean Compart for their years of service on the Board. Both members' terms expired in January. Mr. Vagts was appointed to the Board by Governor Walz in March 2020, and Mr. Compart was appointed in March of 2011 and served as Board President. She presented Mr. Compart with a plaque commemorating his years of service. She thanked both for their time and expertise to the Board of Animal Health.

The next meeting of the Board of Animal Health will be on Wednesday, April 12, starting at 9:30 a.m., at a location to be determined.

Ms. Sawatzke asked for a motion to adjourn the meeting. Mr. Compart made the motion, and Dr. Hawkins seconded it. Members voted unanimously to adjourn.

Respectfully Submitted,

Dr. Marion Garcia
Executive Director
State Veterinarian