ANNUAL REPORT

Fiscal Year 2022

MINNESOTA
BOARD OF ANIMAL HEALTH

BOARD MEMBERS

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ERICA SAWATZKE, President (as of April 12, 2022), Poultry Producer, Kensington
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JIM VAGTS, Livestock Producer, Harmony
DR. JESSICA KOPPIEN-FOX, Veterinarian, Marshall
ALEX STADE, Cattle Producer, Shakopee Mdewakanton Sioux Community, Prior Lake

BOARD MEETINGS

September 15, 2021
December 8, 2021
February 1, 2022
April 12, 2022

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The Annual Report of the Minnesota Board of Animal Health is published in accordance with the provisions of Minnesota Statutes.

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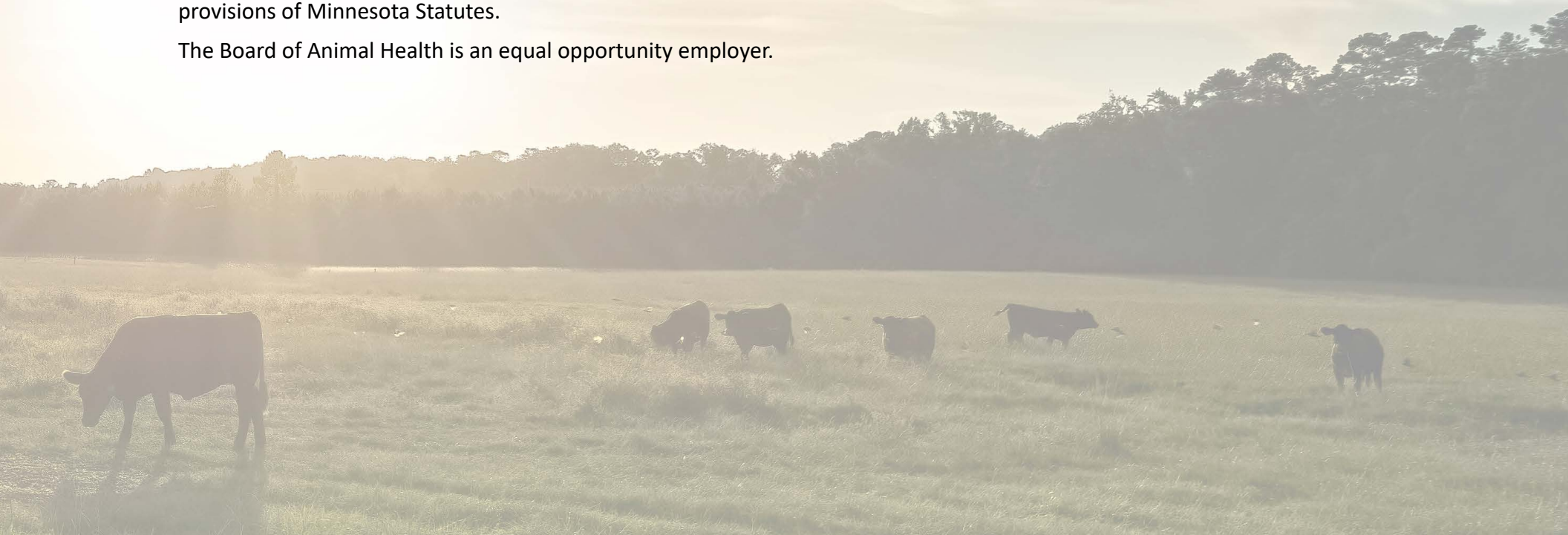


LETTER FROM THE STATE VETERINARIAN

I'm honored to write my first and last Annual Report letter this year as the Interim Executive Director and State Veterinarian. The Board of Animal Health endured some staffing changes this fiscal year, especially among key leadership roles toward the end of the year. Dr. Beth Thompson accepted a new position, Assistant Director Dr. Dale Lauer retired, and Emergency Preparedness Senior Veterinarian Dr. Greg Suskovic retired. All combined, there was around seven decades of experience from those three positions alone. We also had key departures in our field and office staff this year as retirements arrived, and the job market continued to shift. However, we're working hard to fill positions with qualified candidates, and we continue to carry out our mission.

Our Board membership also changed this year and we're pleased to welcome a sixth person to our Board. The legislature modified the statute governing who sits on the Board and required the addition of a livestock producer who is also a member of a federally recognized tribe located in Minnesota. On April 5, 2022, Governor Walz appointed Alex Stade of the Shakopee Mdewakanton Sioux Community. Also, during the April meeting the Board elected new officers—Erica Sawatzke as President and Dr. Peggy Anne Hawkins as Vice President—to serve one-year terms. Lastly, the Board appointed Dr. Linda Glaser as Interim State Veterinarian and will interview candidates and appoint a permanent State Veterinarian in early fiscal year 2023.

Minnesota's poultry industry had quite a tumultuous year with two separate introductions of avian influenza. First, in November a strain of H5 Low Pathogenic Avian Influenza (LPAI) was confirmed in a Kandiyohi County turkey flock. LPAI is not a foreign animal disease, and the Board's response involved quarantining the farm and testing the birds until they recovered from the virus and could be safely sent to market. Then, in March, a strain of H5 Highly Pathogenic Avian Influenza (HPAI) was confirmed in Meeker and Mower Counties. This foreign animal disease detection involved a large state and federal response and eventually totaled 81 affected premises across the state. You can read more about each of these responses in the poultry section of this report.

Zoonotic diseases, those that affect both humans and animals, continue to highlight the need for us to look at disease with a One Health approach, which considers humans, animals and the environment. While many of the diseases we respond to are species-specific, some have the potential to spill over into other species, and we need to stay at the forefront of detecting and responding to those threats. Some examples of zoonotic disease we've had on our radar and responded to this year include canine brucellosis, tularemia, rabies and avian influenza. While not all situations or strains will lead to a human infection, we don't take any chances and work closely with our partners at the Minnesota Department of Health to monitor any human exposure when we detect zoonotic disease in animals.

The next fiscal year brings the promise of a lot of growth at the Board. New staff are inheriting programs and bringing a fresh perspective to the approaches we take to protect the health of Minnesota's domestic species. We continue to push new technologies and efficiencies to better serve our residents. We collaborate with other state and federal agencies and track legislative initiatives to stay in lockstep with our partners and be prepared for any changes to our statutes. In short, these past couple years have taught us the value of flexibility in handling the day-to-day operations and the infrequent foreign animal disease responses. We learn, adapt and achieve to serve our state and maintain the health of our livestock and domestic animals.

Linda C. Glaser, DVM, DACVPM
Interim State Veterinarian, Executive Director

DOGS AND CATS

Commercial Dog & Cat Breeder (CDCB) Program

The Board licenses and inspects dog and cat breeders that possess 10 or more intact animals and produce six or more litters of puppies or kittens in a year. This year the Board developed detailed inspection standards and guidance to assist breeders in meeting licensing requirements and ensure the health and well-being of animals in their breeding programs.

The Commercial Breeder of Excellence program continued to grow this year. This program recognizes commercial breeders that exceed state required standards in the areas of facilities management, behavior and socialization, continuing education, health screening, and canine brucellosis or feline leukemia/FIV screening. Two commercial breeders were awarded badges, with one being awarded badges in all areas and earning the title of Breeder of Excellence. Several other commercial breeders have started the evaluation process for this program as well.

Companion Animal Advisory Task Force

In December 2021, the Board formed a Companion Animal Advisory Task Force with the goal of assembling a group of companion animal experts to identify concerns with companion animal health and welfare from Minnesota veterinarians and other stakeholders, identify zoonotic and vector-borne diseases of the highest concerns, and review import requirements for dogs and cats coming into the state. The task force members include individuals from across the companion animal industry: animal shelters and kennels, foster based animal rescue organizations, commercial pet breeders, animal control agencies, the Humane Society of the United States, the Minnesota Veterinary Medical Association, the University of Minnesota, Tribal representatives, and the Minnesota Department of Health. The task force meets quarterly, with subgroups continuing discussions independently between meetings. Recommendations from the task force will be presented to the Board's program directors and governing board for consideration for future activities and programming.

Kennel Licensing Program

The Board licenses and inspects facilities that accept impounded, stray, abandoned, or owner-surrendered cats and dogs. This includes humane societies, rescue organizations and impound facilities. The Board does not license training and boarding facilities, animal day care facilities or groomers.

Canine Brucellosis

The Board continues to partner with the Minnesota Department of Health to investigate all non-negative test results for Canine Brucellosis. Canine Brucellosis is a zoonotic disease of concern because it can be spread from dogs to humans. Because of the contagious nature of this disease, infected dogs must be permanently isolated from other dogs or be euthanized. The Board and MDH are committed to preventing the spread of this disease by educating the public, canine businesses and rescue organizations, and veterinarians about the importance of surveillance and reporting.

Licensed Kennel & Commercial Dog and Cat Breeder (CDCB) Data: Fiscal Year 2022

87
Kennels licensed

9
New kennels licensed

115
CDCB licensed

3
New CDCB licensed

2
Participants in the Breeder of Excellence Program

Canine Brucellosis:

27
Investigations

41
Total dogs tested

14
Positives

27
Negatives

SWINE

U.S. SHIP

The United States Swine Health Improvement Plan (U.S. SHIP) is modeled after the National Poultry Improvement Plan that has been in place since 1935. U.S. SHIP is intended to provide a national program for certifying swine health status and is initially focused on two diseases: African Swine Fever (ASF) and Classical Swine Fever (CSF). Our state committed to participating in U.S. SHIP, and we encourage swine producers to enroll their production and packing site(s) in this unique program. Industry and state representatives from Minnesota attended the inaugural U.S. SHIP House of Delegates in August 2021 and approved the initial requirements for certification in the program.

The benefits of U.S. SHIP enrollment include:

- Strengthened ASF/CSF preparedness (prevention, response and recovery) for our state.
- Establish a uniform biosecurity, traceability, sampling/testing approach across participating states in both normal time and in times of emergency response.
- Participate in a collaborative industry (producers/packers), state, and federal program in which producers can help establish appropriate standards for health certification.

Enrollment in U.S. SHIP is by site and is straightforward, specifically:

- Complete the enrollment form (either single premise or multi-premise form).
- Complete the biosecurity enrollment survey (one survey for all sites in a given state).
- Provide evidence of ability to provide 30 days of swine movement records in an electronic format.

An electronic application process can be accessed on the Board of Animal Health website, allowing producers to submit their enrollment information instantly for processing.

Current complete enrollments for U.S. SHIP in Minnesota (total capacity = 3,093,332) are as follows:

- Boar Studs: 2 (600 head capacity).
- Breeding Herds: 89 (272,941 head capacity).
- Growing Pigs: 863 (2,813,714 head capacity).
- Small Holding: 9 (5,477 head capacity).
- Slaughter Plant: 1 (enrolled after National Map was generated).
- Farrow-Feeder/Finisher: None.
- Non-commercial: None.

The second annual U.S. SHIP House of Delegates meeting will be held in Bloomington, Minnesota in Fiscal Year 2023. Minnesota enrollments in U.S. SHIP have resulted in awarding 13 voting delegates and two non-voting guests to attend the 2022 U.S. SHIP House of Delegates meeting. Program updates and new resolutions under consideration include managing feed biosafety, live-haul trailer cleaning and disinfection, sampling protocols and procedures, enhancing traceability, and establishing an enrollment category for “Live Animal Marketing Operations.”

Garbage Feeding

The Board continues to license five non-exempt garbage feeders (garbage may contain, or have come in contact with, meat) and 11 exempt garbage feeders (garbage does not contain or has not been contaminated by contact with meat). Non-exempt garbage feeders are inspected monthly for records related to garbage acquisitions, equipment maintenance, and treatment as well as livestock records. Additionally, temperature verification is performed every 90 days to determine garbage is adequately treated (cooked to 212° F for 30 minutes). Exempt feeders are inspected twice annually for records related to garbage acquisitions, equipment maintenance, and livestock records. Additionally, a goal of 25 searches for non-licensed garbage feeders is established to ascertain where food waste is being disposed of and to allow for educational opportunities relative to garbage feeding for both food waste sources and livestock producers.

African Swine Fever

Evaluation of the worldwide ASF status continues with particular attention to the situation in the Caribbean and Western Europe. Haiti and the Dominican Republic have struggled to combat and eliminate the virus on the island of Hispaniola due to culture, governmental relations, and lack of resources. Additional cases of ASF in Western regions of Germany have brought the disease within close proximity to France, Switzerland, and the Netherlands as well as near Germany's most densely populated commercial swine region. With the continued presence of the virus in our hemisphere and movements across Europe, preparations for a possible North American incursion are ramping up. Strategies to control the virus have been augmented by additional research developed by the Minnesota Emergency Disease Management Committee for Swine—Depopulation and Disposal Subcommittee. Specifically, swine depopulation utilizing nitrogen foam during both warm and cold weather has proven effective and is gaining national attention as a top depopulation method. Shallow burial/composting was included in the research to verify temperatures within the pile were able to reach levels sufficient to eliminate viruses with promising results. Additionally, air monitoring was employed to determine potential aerosolization of viruses associated with the grinding and composting of swine carcasses. Those results are still pending.

Certified Swine Sample Collector (CSSC) training of non-veterinarians to collect and submit diagnostic samples in a swine disease event response is underway. Seven individuals have completed training and received certification, while an additional eight individuals are in process. The limited numbers of swine veterinarians nationwide led to the realization that efficient outbreak control would be hindered without additional resources to assist with disease surveillance. The CSSC training program has been under development with collaboration from the Board of Animal Health, Department of Agriculture and Minnesota swine veterinarians as well as counterparts from several states and federal partners. CSSC's will be deployed by state veterinarians to assist in response to disease outbreaks like ASF. The Board of Veterinary Medicine approved the use of CSSC, non-veterinarians to assist accredited swine veterinarians in disease responses within Minnesota.

U.S. SHIP Program Data: Fiscal Year 2022

Minnesota U.S. SHIP Sites Enrolled by Type:

863	Growing Pig
89	Breeding Herd
9	Small Holding
2	Boar Stud
1	Packing Plant

U.S. SHIP Biosecurity Survey: Minnesota Participation by Site Type:

5,421	Growing Pig
680	Breeding Herds
217	Farrow-to-Feeder/Finish
100	Small Holding
57	Non-Commercial
47	Boar Stud
9	Packing Plants

FARMED CERVIDAE

The Board's farmed cervid program didn't have as much disease activity this year as in previous fiscal years. The last detection of chronic wasting disease (CWD) in a farmed cervid herd was in April 2021. Despite no new CWD detections, program staff were still busy with the ongoing CWD investigation of the Beltrami County herd found infected in April 2021 and the nine additional Minnesota farmed cervid herds quarantined as part of the investigation. No CWD was detected in 132 CWD-exposed animals euthanized in these herds. Six herds in the investigation were cleared of any concern for CWD infection by July 2021, and their herd quarantines were released. CWD was not detected in an entire herd depopulated in November 2021, and its quarantine was released in January.

It was another year of multiple legislative proposals related to farmed cervid laws. However, by the end of the session, nothing new was enacted. The State Veterinarian and Board staff testified at hearings and worked on fiscal notes required for these legislative initiatives. Additionally, the Board continues to work with the Department of Natural Resources to outline a Memorandum of Understanding for the policies and operational details of concurrent authority for farmed white-tailed deer.

For the past three years, the U.S. Department of Agriculture, Veterinary Services has offered cooperative agreement funding for CWD control and prevention through a competitive application process. Board staff worked with University of Minnesota researchers and farmed cervid producers to identify high priority projects to submit to the USDA for funding consideration. In the first two years, a proposed project was awarded funding each year for work with Dr. Scott Wells at the University of Minnesota. The first year's project identified key farm and environmental risk factors associated with CWD-positive herds and delivered those study results to state farmed cervid industry representatives to help protect cervid farms from CWD infection. The second year's project is developing an on-farm CWD risk assessment tool for cervid producers and their veterinarians to assess risk of CWD introduction to their operation. This also includes development of educational resources for implementing biosecurity measures to prevent introduction of CWD into a herd. The final part of this project will evaluate the impact of biosecurity measures using the risk assessment tool to determine if the herd risk has decreased.

There were 227 farmed cervid herds registered with the Board this year. The number of animals, broken down by species and purpose for which they're raised, is outlined in the tables below. The purpose for which animals are raised is collected to determine the inspection fee amount to be assessed each year for registration renewal, either hobby or commercial.

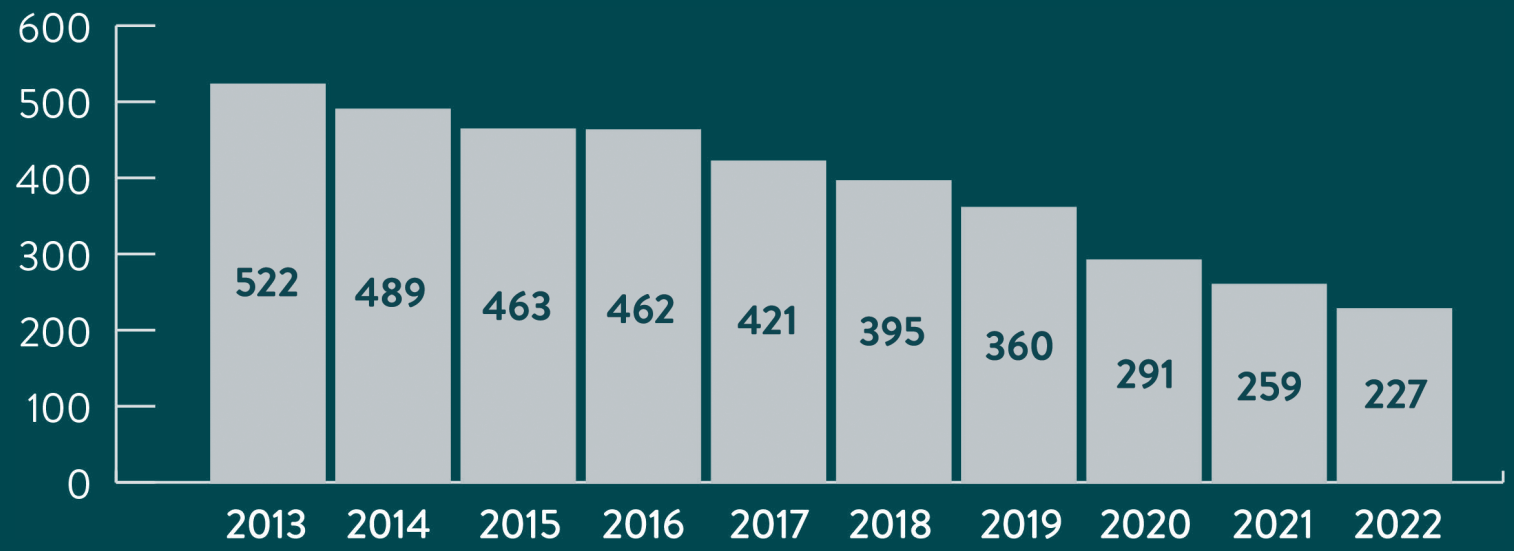
Species breakdown by animal

BREED	TOTAL ANIMALS	NUMBER OF HERDS
White-Tailed Deer	3,337	140
Elk	3,073	83
Red Deer	154	7
Reindeer	75	9
Fallow Deer	93	7
Sika Deer	27	4
Muntjac	23	5
Pere David's Deer	4	1
Moose	2	1
Caribou	2	2
White-Lipped Deer	1	1
TOTAL:	6,791	227

Herd Usage

USAGE	TOTAL HERDS
Breeding	57
Exhibition/Competition	17
Hobbyist	106
Hunting Preserve Site	12
Meat Production	45
Other Animal Products	8
Trophy/Hunting Animal Sales	71
Urine Production	4
Velvet Antler Production	16
Unknown	1
TOTAL:	227

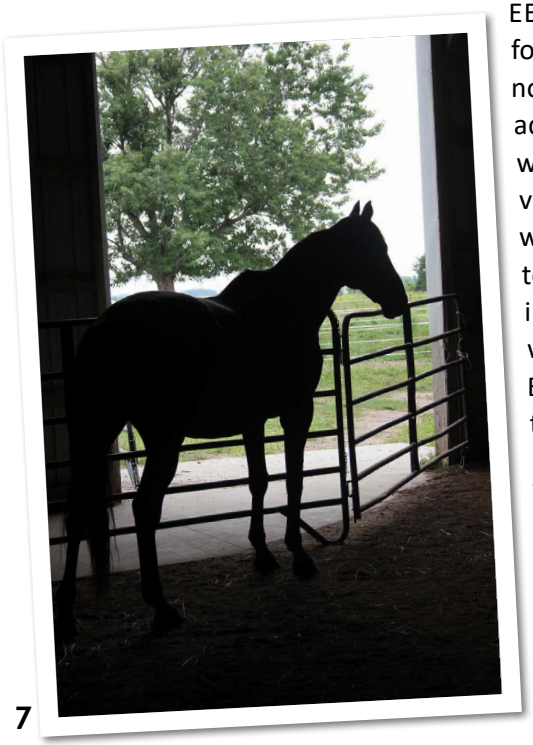
Total Registered Cervid Herds by Fiscal Year, 2013-2022



HORSES

Equine import regulations continued to be evaluated for enforcement during this fiscal year, with fewer cases of non-compliance identified. Markets were encouraged to implement change of ownership Coggin's (EIA) testing requirements for all horses passing through their sales to enhance traceability within the industry.

Vector borne diseases reported included one Eastern Equine Encephalomyelitis (EEE) case located in Itasca County, where the horse owner reported a 6-year-old Quarter Horse mare was found isolated from the herd and ataxic. The horse showed no signs of illness 24 hours earlier. The horse became more ataxic and eventually recumbent when led from the pasture to the barn and appeared to be convulsing prior to humane euthanasia. Brain tissue was submitted for rabies testing that eventually was reported negative. Laboratory protocol was to test for additional neurologic diseases including Equine Herpes Virus 1 (EHV-1), West Nile virus (WNv) and EEE of which she was negative for all except EEE. The horse had not been vaccinated for EEE. Nine additional horses remained on site with none having a history of EEE vaccinations. Rabies vaccinations were administered prior to rabies test results, and the owner indicated that the veterinarian was scheduled to return for EEE/WEE/Tetanus vaccinations for the remaining horses.



Additionally, three cases of confirmed West Nile virus (WNv) infections in horses were reported in Wadena, Benton, and Crow Wing Counties. In all three cases, veterinarians examining the horses reported that the affected horses, as well as additional, unaffected horses at each site, were not vaccinated for WNv. Due to the severity and progression of neurologic signs in the horses from Benton and Crow Wing Counties, humane euthanasia was performed. Both horses were tested postmortem to confirm WNv infections. The Wadena County horse was treated medically and appeared to be recovering after several days of supportive care. Vector borne disease diagnoses are shared collaboratively between the Board and the Minnesota Department of Health (MDH) due to the risk of human exposure to the viruses. While not considered zoonotic diseases, these positive equine cases represent risk of contracting the same viruses by horse owners due to the presence of disease-carrying mosquitoes. MDH follows up with horse owners to discuss symptoms of these vector borne diseases in humans as well as measures that can be taken to help reduce the risk of exposure.

Equine Herpes Virus 1 (EHV-1) can cause Equine Herpes Myeloencephalopathy (EHM). While upper respiratory EHV-1 infections are not uncommon in the equine industry, neurologic disease associated with the virus has caused devastating impacts in the horse world within the last decade. Routine vaccinations for EHV-1 are recommended for prevention of the upper respiratory form of infection but have not shown protection against EHM. Biosecurity remains the most effective tool in preventing infection of this highly contagious virus. Due to the threat of rapid spread of the virus, Minnesota requires reporting of EHM cases to the Board of Animal Health. Quarantines are established at facilities housing positive cases for at least 21 days with twice daily temperature monitoring of all horses on site. Additional horses revealing fevers of 102 degrees Fahrenheit or higher restarts the 21-day quarantine for that farm. Three unrelated cases of EHM were reported in Minnesota during the 2022 fiscal year.

Fiscal Year 2022 EHM Cases

In September 2021, a horse in Washington County was being evaluated by a veterinarian to issue a Certificate of Veterinary Inspection and was exhibiting subtle ataxia, or lack of coordination. Testing was performed, and EHV-1 was detected. Ataxia progressed to more significant neurologic signs, and the horse was humanely euthanized due to poor prognosis for recovery. An additional 31 horses were housed on site. The owner reported a second horse displaying similar signs and decided to euthanize that horse as well. Test results from the second horse were negative for EHV-1. No other horses presented signs.

Additionally, in September 2021, the University of Minnesota Veterinary Medical Teaching Hospital reported a patient with neurologic signs accompanied with a positive EHV-1 test. Despite evidence of cervical vertebrae degeneration seen on radiographs, the horse was diagnosed with EHM due to the inability to distinguish the cause of the horse's ataxia between EHV-1 infection or spinal cord compression. An additional 29 horses and two donkeys were quarantined at the farm of origin for 21 days with twice daily temperatures recorded. No additional horses presented clinical signs. The infected horse continued to improve and was eventually discharged to return to the farm of origin.

An unrelated case in Olmsted County was reported in March 2022. The affected horse was found unable to stand and unable to void its urinary bladder. Samples were submitted for EHV-1 testing and the horse was humanely euthanized 24 hours later due to progression of signs. A total of 25 horses on site were quarantined with temperatures recorded twice daily. Three horses developed fevers greater than 102 degrees Fahrenheit, with two testing positive for EHV-1. However, signs remained upper respiratory, and those horses were not considered EHM cases.

Equine Disease Case Numbers: Fiscal Year 2022

3
West Nile Virus

1
Eastern Equine Encephalitis

0
Equine Infectious Anemia

3
Equine Herpesvirus Myeloencephalopathy

POULTRY

The poultry industry in Minnesota faced some difficult disease challenges this year. Minnesota responded to both Low Pathogenic Avian Influenza (LPAI) and Highly Pathogenic Avian Influenza (HPAI) this fiscal year. In late 2021, two commercial turkey premises were identified with an LPAI H5N3 virus of North American wild bird lineage. The Minnesota H5/H7 LPAI Initial State Response and Containment Plan (Minnesota Plan) was implemented, and swift actions were taken to control the virus. One flock was quarantined and disposed of via Controlled Marketing, which allows quarantined birds to recover from the infection and be marketed through normal channels once the flock is virus negative. Due to the high poultry density in the area, the second flock was disposed of via mass depopulation. All testing conducted on flocks in the surveillance zones and epidemiologically linked premises was negative.

The second disease event, unfortunately, was much larger and more severe. Cases of HPAI were being detected both in wild birds and domestic poultry in many states across the United States during the winter and spring of 2022. On March 25, 2022, two flocks in Minnesota (one commercial, one backyard) were tested for influenza due to spikes in mortality and were confirmed infected with Eurasian lineage HPAI. In total, 81 sites in 28 counties were confirmed with H5N1 HPAI:

- 52 commercial turkey meat birds (18 counties)
- 5 commercial breeder turkeys (2 counties)
- 1 commercial table-egg layer (1 county)
- 1 commercial broiler (1 county)
- 21 non-commercial flocks (defined as non-poultry by the World Organization of Animal Health) (15 counties)
- 1 epidemiologically linked premises of commercial turkey meat birds (1 county)

On March 31, 2022, the Board announced a 31-day statewide ban on all poultry sales and exhibitions due to the HPAI event. The goal was to allow time to understand where the virus was circulating, to prevent the spread of the virus by limiting the co-mingling of susceptible species, and to protect Minnesota flocks by reducing the likelihood of people bringing the virus back to their own flocks. The ban applied to all poultry swaps, fairs, exhibitions and other events where live poultry and susceptible birds are brought together and then disperse. It did not apply to single or private sales or sales through NPIP hatcheries and feed stores. On April 28, 2022, due to continued HPAI detections in both commercial and backyard flocks, the decision was made to extend the ban until June 1, 2022, with a goal of suppressing cases leading into the busy fair and exhibition season. While commercial cases significantly decreased in May, the detection of HPAI in backyard flocks was ongoing. A decision was made to extend the ban until July 1, 2022. Cooperation and acceptance with the ban were generally good, and no compliance issues were identified. University of Minnesota-Extension and 4H worked with fairs on alternate options for individuals involved with poultry exhibitions.

Because biosecurity has been identified as a key component in preventing introductions of infectious diseases, USDA-APHIS continues to require producers meeting the minimum size requirements to qualify for HPAI indemnity claims to have a biosecurity plan in place addressing the 14 biosecurity principles

included in the National Poultry Improvement Plan (NPIP) Program Standards. This includes an audit by the NPIP Official State Agency, which in Minnesota is the Board of Animal Health. The Board continues to work with poultry producers and audit their written biosecurity plans according to the NPIP Program Standards. In fiscal year 2022, the Board audited and rated 34 biosecurity plans as satisfactory. Without the continued efforts on biosecurity by the poultry industry, the 2022 HPAI outbreak could have been much worse.

In accordance with Minnesota Board of Animal Health rules (1721.0330), all samples collected from hatcheries and poultry flocks in Minnesota to meet Board disease program requirements must be collected by an Authorized Poultry Testing Agent (APTA). APTAs collect samples for routine NPIP disease surveillance testing, and are called upon to collect samples during disease outbreaks. All flocks located within HPAI surveillance zones were required to collect samples to monitor for disease spread and prior to movements of poultry and poultry products. Having trained APTAs on-site helps protect flocks by limiting movements of traffic, people and supplies onto and off a premises. The Board is grateful for the assistance of these APTAs in collecting and submitting samples during the HPAI 2022 outbreak. As of June 30, 2022, the Board has 875 Authorized Poultry Testing Agents certified.

NPIP Program Participants as of June 30, 2022:

67	Commercial Breeding Flock Facilities
27	Commercial Egg Layer Facilities
8	Commercial Hatcheries
6	Commercial Slaughter Plants
3	Live Bird Markets
218	Poultry Dealers
2	Subpart F - Ratites
12	Subpart J - Gamebirds
66	Waterfowl, Exhibition Poultry and Gamebirds (WEGBY)

NPIP participating flocks: Fiscal Year 2022

POULTRY TYPE	NPIP PARTICIPATING FLOCKS	NUMBER OF BIRDS
Commercial Egg-Type Chicken Breeders	1	39,000
Commercial Meat-Type Chicken Breeders	33	508,200
Commercial Turkey Breeders	81	1,095,400
Commercial Egg-Type Chicken	139	13,933,542
Commercial Meat-Type Chicken	1,345	73,661,000
Commercial Meat-type Turkeys	1,696	47,118,815
WEGBY Facilities	66	9,794
Subpart J - Gamebirds	12	243,300
Subpart F - Ratites	2	8

CATTLE

The Board's Cattle Program staff partner with state and federal agencies, producers, and other stakeholders to rapidly detect, prevent the introduction, and mitigate spread of diseases that could severely impact our state's cattle and bison industry. Board staff continue to work with producers to help them comply with the state's official identification requirements which facilitate rapid tracing of potentially diseased cattle and bison. Producers and veterinarians can contact the Board for free radio frequency identification (RFID) tags and to borrow RFID readers. Read more about official identification including RFID in the Traceability section of this report on page 16.

Minnesota remains bovine tuberculosis (TB) and brucellosis (Brucella abortus) free, thanks to our more than 500 accredited and certified veterinarians who conduct disease surveillance in cattle across the state. In fiscal year 2022, Minnesota veterinarians screened 5,634 cattle and bison for bovine tuberculosis using the caudal fold tuberculin (CFT) test. Twenty responders required additional testing by regulatory veterinarians, and all were confirmed to be negative. A total of 116 cattle tested negative for, and 13,946 cattle were vaccinated against B. abortus. The Board did not conduct any TB or brucellosis trace investigations this fiscal year.

SHEEP AND GOATS

Minnesota sheep and goat producers continue to actively participate in the state and national Scrapie Eradication Programs. Thanks to collaborative efforts by regulatory agents, veterinarians, producers, slaughter establishments, livestock concentration points and industry partners, no cases of scrapie have been confirmed in Minnesota since 2011. Minnesota maintains its status as a consistent state under the USDA's National Scrapie Eradication Program. Board staff verify sheep and goats in the state are officially identified and routinely collect and submit samples for disease surveillance. Minnesota once again exceeded minimum requirements for Scrapie surveillance in sheep and goats and assisted other states in reaching their minimum sampling requirements.

The Board continues its ongoing partnership with the Ovine Progressive Pneumonia (OPP) Concerned Sheep Breeders Society and multiple state and federal partners to promote a voluntary OPP and Caprine Arthritis Encephalitis (CAE) program. The goal of the program is to eradicate these diseases and promote herd health through routine testing, robust management practices and biosecurity.

RABIES

The Board, Minnesota Department of Health (MDH), Minnesota Veterinary Diagnostic Laboratory and Minnesota Public Health Laboratory work hand in hand to conduct rabies surveillance and investigate possible rabies exposures in both people and animals. Domestic animals exposed, or potentially exposed, to an animal suspected or confirmed to be infected with the rabies virus are confined and observed, or officially quarantined at the direction of the Board.

The incidence of rabies infection in wildlife continues to decline in Minnesota, and bats and skunks remain the most common wild carriers. Decreasing wild carriers and increasing rabies vaccination rates have led to fewer cases of rabies in domestic animals. Education and vaccination continue to be the most important measures to reduce the risk of rabies.

The Board and MDH continue to collaborate to educate Minnesota veterinarians, physicians, animal control personnel and the public about risks of exposure to this deadly virus. Together, we develop, and regularly improve, resources to assist Minnesotans in recognizing the signs of rabies, submitting animals for rabies testing, and protecting domestic animals and people from rabies. The Board also communicates rabies case information and other updates to Minnesota veterinarians through Rabies Alerts and Animal Bytes newsletters. This year, that included updated recommendations for pre-exposure prophylaxis based on risk of exposure. These new guidelines decreased the vaccination regimen from three shots to two and eliminated the need for serial titer testing for most veterinary personnel.

Rabies Cases: Fiscal Year 2022

Number of Rabies Investigations:

148

Number of Positives Per Species:

Bats:	Skunks:	Cat:
28	2	1

EMERGENCY PREPAREDNESS

Emergency preparedness is having a plan in place for an unforeseen event. When it comes to the Board's work with animal health, these events are often triggered by foreign animal disease investigations. If an investigation leads to a positive disease diagnosis, the Board responds immediately and appropriately to protect the health of Minnesota's domestic animal populations. In Fiscal Year 2022, the Board and USDA's Foreign Animal Disease (FAD) Diagnosticians conducted 35 FAD investigations.

The Minnesota Department of Agriculture worked to develop a patented nitrogen foam delivery system for use in large-scale swine depopulation in animal disease emergency response events. The technology mitigates several challenges currently associated with large-scale swine depopulation, and it is a humane and ethical method accepted by the American Veterinary Medical Association. The technology was tested in the field this fiscal year with state and industry observers.

This fiscal year, the Board staff trained several new case managers, the individuals responsible for directly engaging affected producers during a foreign animal disease response. The training proved to be just in time for most staff because HPAI arrived in the spring and put them to work right away.

Foreign Animal Disease Investigations by Species: Fiscal Year 2022

12
Swine

16
Rabbit

3
Bovine

0
Equine

4
Poultry

0
Caprine

COMPLIANCE

The goal of the Board's Compliance Program is to ensure compliance with statutes, rules and policies in place to protect the health of Minnesota's domestic animals. A new initiative of the Board is consistency with inspections and enforcement of compliance actions across all programs. One of the first steps in launching this initiative was creating and filling a Compliance Unit Supervisor position at the Board. Over the next year, the Compliance Unit Supervisor will collaborate with program directors and field inspectors to determine resource and training needs and develop procedures on compliance action best practices.

Compliance Actions: Fiscal Year 2022

PROGRAM	NOTICE OF VIOLATION/ CORRECTION ORDER	CIVIL PENALTY
Animal Disease Traceability	1	0
Carcass Disposal	4	0
Commercial Dog and Cat Breeders	3	1
Dealers	3	0
Farmed Cervidae	32	5
Food Waste to Livestock	1	0
Import/Intrastate Movement	1	0
Kennels	3	0
Markets	1	0
Poultry	1	0
Rabies	1	0
Sales	0	0
Scrapie	0	0
Testing Authorization/ Certification	0	0
Tuberculosis	0	0
Veterinary Accreditation	2	0
TOTAL:	53	6

ANIMAL MOVEMENTS AND TRACEABILITY

Producers and veterinarians can help control animal diseases by applying official identification and keeping accurate movement records. The Board utilizes funds awarded from USDA cooperative agreement opportunities to encourage the use of electronic identification and streamlined record keeping. The Board has a ready supply of official and radio frequency identification (RFID) tags and wands (tag readers) to distribute to producers and veterinarians upon request. Cattle and bison producers can also take advantage of the USDA's no-cost program for RFID in replacement heifers. Veterinarians are encouraged to transition to electronic Certificates of Veterinary Inspection (CVIs) to save time and resources and to improve the efficiency of Minnesota's Animal Disease Traceability program.

CVIs by Species: Electronic versus Paper

SPECIES	ELECTRONIC	PAPER	NUMBER OF CVIs ISSUED
Bison	33%	67%	18
Bovine	42%	58%	6,731
Cats	62%	38%	433
Dogs	31%	69%	3,189
Equine	67%	33%	4,928
Farmed Cervidae	59%	41%	176
Goats	44%	56%	428
Regulated Animals	30%	70%	20
Sheep	36%	64%	546
Swine	95%	5%	3,441
Swine Semen	84%	16%	526
Other (other than species listed)	60%	40%	212
TOTAL:	55%	45%	22,057

BUDGET

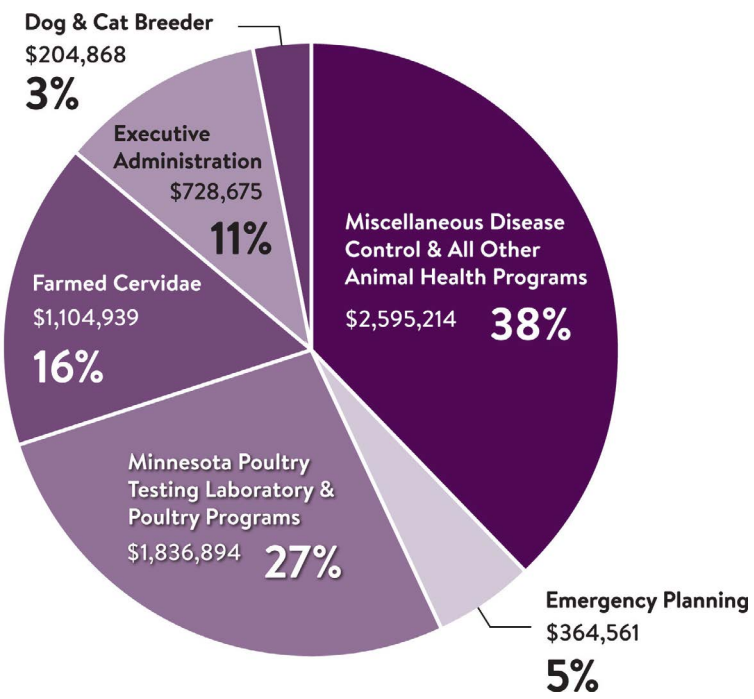
During Fiscal Year 2022, the Board expended $6,835,151 to carry out its many animal health and disease programs. Funding for these programs came from the following sources.

Expenses Charged to Revenue Source: Fiscal Year 2022

SOURCE OF FUNDS	FISCAL YEAR 2022 EXPENDITURES
State - General Appropriation	$5,214,207
State - Emergency Planning and Preparedness	$192,090
Federal	$1,141,005
Restricted Miscellaneous Special Revenue	$287,848
TOTAL:	$6,835,151

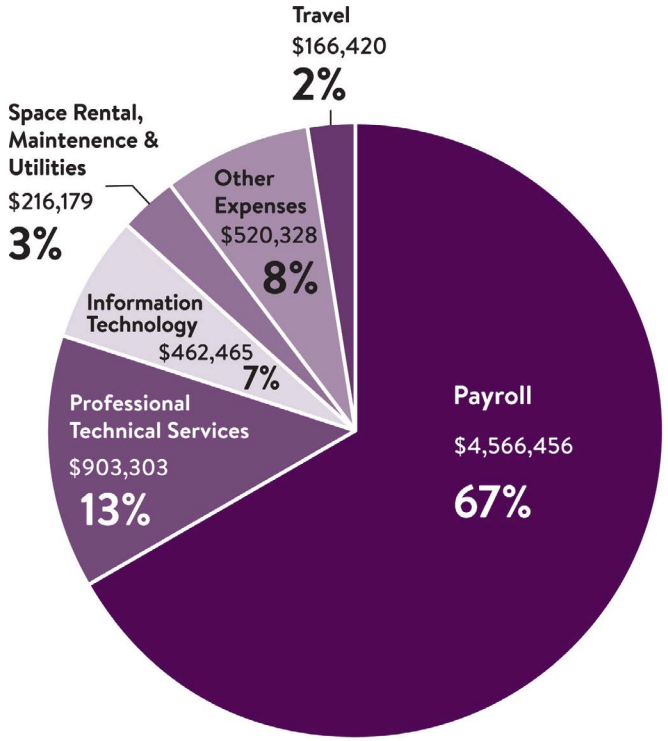
During Fiscal Year 2022, the Board expended $6,835,151 to carry out its many animal health and disease programs. The following two charts show how the Board used the funding that was provided to us:

Board of Animal Health: Fiscal Year 2022 Total Expenses by Program - $6,835,151



- Miscellaneous Disease Control and All Other Animal Health Programs: $2,595,214 (38%)
- Emergency Planning: $364,561 (5%)
- Minnesota Poultry Testing Laboratory and Poultry Programs: $1,836,894 (27%)
- Farmed Cervidae Program: $1,104,939 (16%)
- Executive Administration: $728,675 (11%)
- Dog and Cat Breeder $204,868 (3%)

Board of Animal Health: Fiscal Year 2022 Total Expenses by Category - $6,835,151



- Payroll: $4,566,456 (67%)
- Professional Technical Services: $903,303 (13%)
- Information Technology: $462,465 (7%)
- Space Rental, Maintenance and Utilities: $216,179 (3%)
- Other Expenses: $520,328 (8%)
- Travel: $166,420 (2%)

VETERINARY DIAGNOSTIC LABORATORY

The University of Minnesota Veterinary Diagnostic Laboratory provides diagnostic services at two sites: the main laboratory, referred to as the "VDL," on the St. Paul campus of the University of Minnesota, and the Minnesota Poultry Testing Laboratory, or "MPTL," at a stand-alone facility in Willmar. Together, they make up the only diagnostic laboratories in the state accredited by the American Association of Veterinary Laboratory Diagnosticians. Both are Level-one members of the USDA National Animal Health Laboratory Network.

Following the 2015 outbreak of HPAI, the state of Minnesota funded a significant expansion of the MPTL facilities to allow for the addition of molecular diagnostic and avian pathology services. This allowed for PCR testing for avian diseases in the region of the state where many poultry farms are located.

This expansion of diagnostic services in Willmar was very beneficial in 2022 with another large scale HPAI event. The MPTL ran PCR tests for avian influenza with multiple testing runs seven days a week during the peak of the outbreak, providing test results that facilitated rapid decision making and responses. The VDL also ran PCR tests so flocks closer to St. Paul had another location option for testing. The VDL also performed testing for wildlife rehabilitation centers that allowed them to continue operating during the outbreak and also generated new discoveries on the species affected by influenza virus. Combined, the two laboratories performed more than 18,000 PCR tests for avian influenza during the HPAI event in fiscal year 2022.

Both laboratories can perform testing for other foreign animal disease investigations or outbreaks. This requires each scientist in the lab performing the test to pass a USDA proficiency test for each type of test performed as part of the standards of the National Animal Health Laboratory Network.

VDL Fiscal Year 2022: Procedures by Laboratory

LABORATORY	NUMBER
Bacteriology	25,270
Clinical Pathology	55
Histology	29,139
Immunohistochemistry	5,108
MN Poultry Testing Lab+	166,959
MN Poultry Testing Lab*	142,673
Molecular Diagnostics	295,012
Necropsy	8,146
Necropsy/Histopathology Only	6,089
Non-Accredited Research Laboratory	485
Outsourced Lab Service	7,144
Parasitology	2,918
Receiving, Reporting and Admin	3,774
Serology	134,191
Udder Health	96,733
Virology	8,230
GRAND TOTAL:	931,926

+Producer-funded testing
*Board-funded testing

VDL Fiscal Year 2022: Animals Submitted

SPECIES	NUMBER
Amphibian	42
Avian, Chicken	46,750
Avian, Miscellaneous	2,332
Avian, Turkey	144,805
Bovine	91,394
Canine	2,096
Caprine	2,065
Cervidae	2,455
Equine	3,316
Feline	953
Fish	1,126
Miscellaneous Mammals	1,635
Non-Animal Submission	150
Ovine	4,261
Porcine	198,307
Reptile	44
GRAND TOTAL:	501,731

VDL Fiscal Year 2022: Procedures by Species

SPECIES	NUMBER
Amphibian	363
Avian, Chicken	63,759
Avian, Miscellaneous	7,066
Avian, Turkey	252,777
Bovine	142,044
Canine	6,978
Caprine	3,815
Cervidae	6,409
Equine	4,196
Feline	3,265
Fish	2,506
Miscellaneous Mammals	4,235
Non-Animal Submission	253
Ovine	5,494
Porcine	428,299
Reptile	467
GRAND TOTAL:	931,926

MINNESOTA
BOARD OF ANIMAL HEALTH

Healthy animals for healthy people and communities.

625 Robert Street North
St. Paul, Minnesota 55155

651-296-2942

animalhealth@state.mn.us