



ANIMAL INDUSTRY DIVISION

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LETTER FROM THE DIRECTOR

In 2021, the Animal Industry Division (AID) of the Michigan Department of Agriculture and Rural Development (MDARD) continued to persevere and successfully adapt to unique challenges, allowing the Division to accomplish its core functions of protecting, regulating, and promoting animal health. Below are three highlights of our efforts this year:

- ***Modified Accredited Zone (MAZ) Buffer County Bovine Tuberculosis Testing:*** AID's field staff were able to not only maintain the quality of their work but also expand on the quantity of their work to meet the requirements mandated in the 2019 Memorandum of Understanding (MOU) between the U.S. Department of Agriculture (USDA), the Michigan Department of Natural Resources, and MDARD. In addition to the hundreds of cattle herds tested in the MAZ, the MOU also included the steep goal of testing 150 herds for two consecutive years in six MAZ buffer counties and all herds in Presque Isle County. Over the course of 2021, this goal was met for the first year of required testing, and significant progress was made toward the second year's goal.
- ***Improved Animal Traceability:*** AID and USDA Veterinary Services cooperatively authorized 14 licensed Michigan livestock auction markets to operate as approved tag resellers and approved tagging sites. As of January 1, 2021, these markets input their official Radio Frequency Identification (RFID) tag distribution records directly into the USDA's database, which will enhance national animal traceability. In addition, an [interactive GIS map](#) was developed to help cattle, bison, cervid, and swine producers locate the nearest approved tag reseller or tagging site to purchase official RFID tags.
- ***Approval of a New Vaccine for Rabbit Hemorrhagic Disease Virus Type 2 (RHDV2):*** In October 2021, MDARD authorized the use of a new vaccine for RHDV2, an extremely contagious and fatal disease for rabbits and hares. By making the vaccine available, owners of domestic rabbits in Michigan have an additional resource they can use to keep their animals healthy and safe.

Throughout the following pages, you will find summaries of how our various programs work to protect, regulate, and promote animal health as well as a selection of their accomplishments in 2021. I am proud to share our story with you.

Nora E. Wineland, DVM, MS, DACVPM

State Veterinarian and Division Director
Animal Industry Division



ANIMAL CONTROL

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The Animal Control Program works with local animal control agencies to provide support, education, and guidance on animal health issues and state regulations.

Animal control, along with local law enforcement entities, enforce animal laws that address public safety and animal welfare. This includes dog and local kennel licensing, stray dogs, and animals running at large. Additionally, they are responsible for investigating claims of neglect and cruelty against animals, situations of animal hoarding, and complaints involving exotic or dangerous animals.

IMPACT FOR MICHIGAN:

Animal control agencies and officers play a critical role in ensuring animal welfare, which leads to the greater health and safety of the public. This sector provides resources for the housing and care of lost, stray, and unwanted animals. Also, animal control plays an especially important role in protecting people from animals running at large and animal bites, keeping the public safe from diseases such as rabies.

ACCOMPLISHMENTS:

- Expanded opportunities for the virtual Animal Control Officer Ride-Along Training, an essential part of the course of study prescribed by MDARD to prepare county and municipal animal control officers for the field. By offering this training virtually, the program was able to deliver a consistent, meaningful educational experience and increase the reach of these instructional opportunities.
- Collaborated with the Michigan Association of Animal Control Officers (MAACO) to provide presentations from MDARD and roundtables at the spring and fall MAACO conferences.
- Ensured that there were appropriate virtual training opportunities available for animal control officers to learn about humane euthanasia and field tranquilization of animals, as required by the Public Health Code.

Metric	2020	2021
Virtual Animal Control Officer Ride-Along Training requests	14	15
Animal control officer training reviews completed	34	30

PROGRAM GOALS:

- Provide at least two virtual trainings, in cooperation with the Michigan Association of Animal Control Officers (MAACO), for animal care and enforcement agencies and their partners in 2022.
- Continue to enhance the program’s online presence and create new resources for animal control officers and agencies regarding animal health programs, available trainings, and state animal laws.
- Refresh quarterly meetings with the MAACO’s Board of Directors to discuss educational needs and training opportunities.

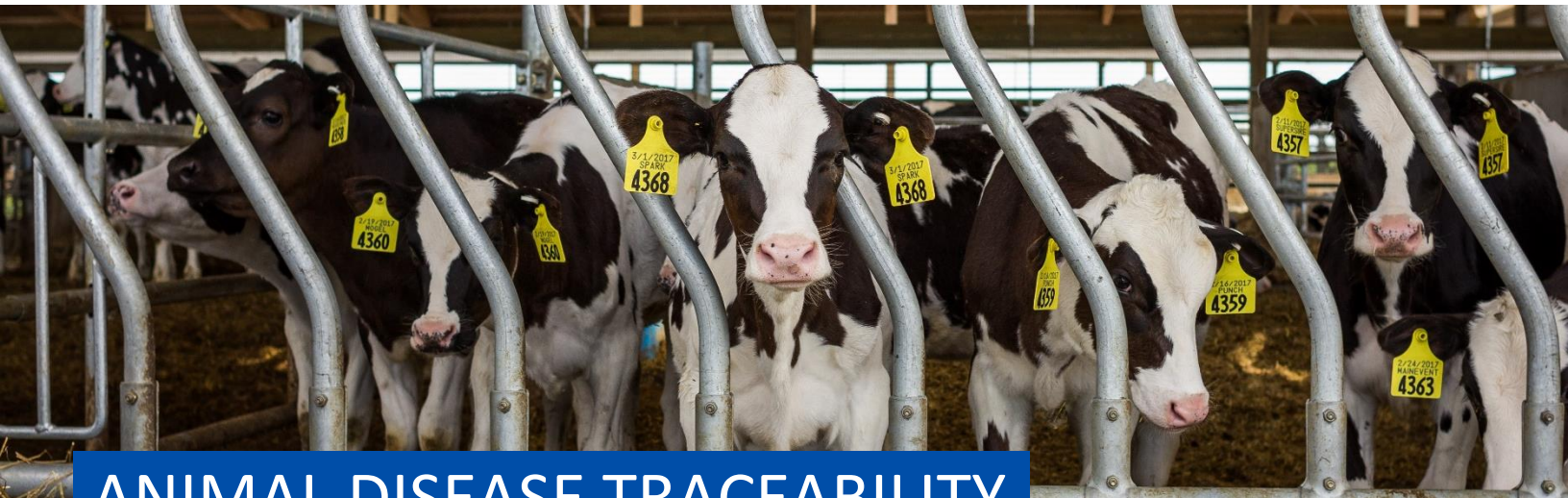


KEY STAKEHOLDERS:

- Michigan Association of Animal Control Officers
- Michigan’s counties, cities, villages, townships, and other local units of government
- Michigan law enforcement agencies
- Michigan Veterinary Medical Association

LEGAL AUTHORITY:

- Act 287, PA 1969 as amended
- Regulation 151
- Act 339, PA 1919 Dog Law of 1919
- Act 309, PA 1939



ANIMAL DISEASE TRACEABILITY

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The Animal Disease Traceability (ADT) Program educates others on the requirements for animals moving into, within, and out of Michigan and enforces these standards. Overall, these requirements provide assurance of animal health and traceability.

The ADT Program also gathers and stores searchable data on animal identification and movement, enabling a rapid response when an outbreak of a reportable animal disease occurs.

IMPACT FOR MICHIGAN:

By facilitating the prompt identification and tracking of animals, the ADT Program safeguards Michigan’s residents from the potential impacts of an animal health crisis. Animal disease outbreaks can affect the continuity of agricultural business, the strength of Michigan’s economy, and/or the health of the public. The efforts of this program ensures the viability of Michigan’s livestock industry and protects public health.

ACCOMPLISHMENTS:

- Educated extension agents, breeders, exhibitors, and county fairs on official identification options for exhibition swine.
- Introduced an interactive GIS map where livestock producers and exhibitors can find local businesses approved to distribute official radio frequency identification (RFID) ear tags.

Metric	2020	2021
Interstate certificates of veterinary inspection issued electronically in Michigan versus paper-based certificates, enhancing traceability efforts	41%	56%

PROGRAM GOALS:

- Integrate ultra-high frequency (UHF) RFID readers into the existing low frequency (LF) RFID infrastructure, creating dual-frequency RFID reader systems in additional facilities.
- Increase the collection of electronic data by automating third-party data transmission directly into USAHerds, implementing and promoting the use of a new electronic certificate of veterinary inspection, and converting more paper forms into searchable electronic documents.
- Educate stakeholders on the importance of traceability for effectively and efficiently responding to animal disease outbreaks.



KEY STAKEHOLDERS:

- U.S. Department of Agriculture
- Michigan Farm Bureau
- Michigan Milk Producers Association
- Michigan Cattlemen’s Association
- Accredited Veterinarians

LEGAL AUTHORITY:

- Public Act 466 of 1988, as amended, the Animal Industry Act
- 9 CFR Part 86



ANIMAL SHELTERS

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The Animal Shelters Program is responsible for registering animal shelters. This includes both municipal open-admission animal control shelters and animal protection shelters, which are closed-admission facilities typically operated by private (mostly non-profit) organizations. Also, the Animal Shelters Program staff work with shelters to provide guidance and education on animal health issues and state regulations.

IMPACT FOR MICHIGAN:

Animal shelters care for animals needing protection, serve as a place for lost pets to be reunited with their families, and help to home surrendered or abandoned animals. Situated in the communities they serve, animal shelters partner with law enforcement agencies, animal advocacy groups, veterinarians, and animal behavior specialists to ensure the safety of both animals and the community at large. Shelters also play a key role in preventing unwanted animals by encouraging and offering low-cost spay/neuter programs.

ACCOMPLISHMENTS:

- Ensured there were appropriate virtual training opportunities available for animal shelter employees regarding the humane euthanasia of shelter animals, as required by the Public Health Code.
- Developed and updated materials that were needed by the animal shelter community to continue their services during the pandemic.
- Presented on Michigan animal shelters at the 2021 Michigan Veterinary Conference.
- Initiated a new web page project for the [Animal Welfare Fund](#).

Metric	2020	2021
Registered shelters not requiring a follow-up for corrections or improvements (target 70%)	97%	91%
Registered shelters inspected annually (target 100%)	86%	94%
Shelters reporting their annual statistics	95%	98%

PROGRAM GOALS:

- Administer a successful Animal Welfare Fund Grant Program, helping to increase the number of shelter animals being spayed/neutered prior to adoption, facilitate more education and training opportunities regarding proper animal care, and provide additional funding for animals ordered to be held at a shelter as evidence for court cases.
- Improve animal shelter-related outreach through updating the program’s online presence and creating new resources for shelters and those looking to adopt a shelter animal.



KEY STAKEHOLDERS:

- Michigan Association of Animal Control Officers
- Michigan’s counties, cities, villages, townships, and other local units of government
- Michigan Partnership for Animal Welfare
- Michigan Veterinary Medical Association

LEGAL AUTHORITY:

- Act 287, PA 1969 as amended
- Regulation 151
- Act 339, PA 1919 Dog Law of 1919
- Act 309, PA 1939
- Act 132, PA 2007 Animal Welfare Fund Act



AQUACULTURE

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The Aquaculture Program manages the registration and regulation of aquaculture facilities. It also serves to protect and promote the aquaculture industry by addressing issues related to fish health, environmental protection, and industry concerns. Specific activities of the program include pre-licensing inspections, routine annual inspections, and reportable disease or escapement responses. Further, in collaboration with the Michigan Department of Natural Resources, the program oversees the issuance of all prior-entry import permits, including permits for baitfish and other aquaculture intended for stocking public waters. Lastly, the program works with other state agencies to prevent and control aquatic invasive species in the Great Lakes area.

IMPACT FOR MICHIGAN:

Within the next 30 years, estimates show that twice as much food will be needed to sustain the world's growing population. The U.S. currently imports more than 90 percent of the seafood consumed in America. This offers a considerable opportunity for domestically-raised fish. Michigan's abundant water resources and diverse agricultural base uniquely positions the state to capitalize on this prospect and help meet the protein needs of the world. The efforts of the program are integral for being able to capture this opportunity.

ACCOMPLISHMENTS:

- Completed 36 annual inspections of registered aquaculture facilities.
- Participated in Michigan's PFAS Action Response Team, investigating and responding to multiple surface, groundwater, and drinking water contamination sites throughout the state.

Metric	2020	2021
Number of registered facilities inspected	33	36
Number of new facilities registered	2	0
Number of import permits issued	119	124

PROGRAM GOALS:

- Promote the expansion of the aquaculture industry by effectively working with other state agencies to facilitate the registration of new facilities.
- Protect the aquatic health of public and private waters and meet the importation needs of the industry by timely issuing prior-entry import permits.
- Respond promptly to suspected cases of reportable aquatic disease in commercial aquaculture facilities.
- Collaborate with other state agencies to meet the goals outlined in the Invasive Species State Management Plans, including the Michigan Invasive Species Grant Program.



KEY STAKEHOLDERS:

- Michigan Aquaculture Association
- Quality of Life Agencies (Departments of Environment, Great Lakes, and Energy; Agriculture and Rural Development; and Natural Resources)
- Michigan State University
- Michigan Farm Bureau
- Michigan Aquaculture Producers

LEGAL AUTHORITY:

- Michigan Aquaculture Development Act, 1996 PA 199
- Animal Industry Act, 1988 PA 466 as amended



BOVINE TUBERCULOSIS

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The goal of the Bovine Tuberculosis (TB) Program is to prevent, control, and ultimately eradicate the disease in cattle. The activities of the program are critical in order to ensure Michigan's cattle industry has access to national and international markets. Within the state, there are currently two TB zones: a four-county area in northern lower Michigan called the Modified Accredited Zone (MAZ) and the remainder of the state is referred to as the Accredited Free Zone (AFZ). In the MAZ and its adjacent counties, the Bovine TB Program works daily on disease surveillance, animal traceability, and prevention of bovine TB transmission from deer-to-cattle. These efforts are complimented by a variety of communication strategies intended to increase awareness and engagement.

IMPACT FOR MICHIGAN:

The Bovine TB Program protects cattle markets as well as public health in Michigan. Since bovine TB is a disease that can affect people, controlling the disease in cattle is essential. Additionally, bovine TB has economic implications for farmers, producer groups, hunters, and the federal government. With more than 12,000 cattle producers in the state who maintain more than 1.2 million cattle, the Bovine TB Program plays a crucial role in maintaining market access for Michigan cattle, meat, and milk products. For example, dairy producers located in the MAZ require the activities of this program to sell Grade A milk.

ACCOMPLISHMENTS:

- Responded successfully to the detection of one TB-infected herd in a county directly adjacent to the MAZ.
- Found no occurrence of TB-infected cattle herds in the MAZ for a 12-month period.
- Conducted program activities safely throughout the COVID-19 pandemic, ensuring ongoing control of the disease, stability of the Michigan cattle industry, and the continued preservation of the market for Michigan's cattle as well as meat and milk products.
- Completed the first year and started the second year of TB surveillance for cattle herds within six counties bordering the MAZ and implemented full TB program activities in Presque Isle County, continuing the TB-Free status of 95% of Michigan's counties.

Metric	2020	2021
Percentage of Michigan counties at TB-Free status	95%	95%
Percentage of active commercial herds with Wildlife Risk Mitigation (WRM) verified status	89%	71%

PROGRAM GOALS:

- Continue to maintain Michigan’s split-state status for bovine TB.
- Complete a new Memorandum of Understanding with the U.S. Department of Agriculture (USDA) continuing the current status designations.
- Use available resources to assist farmers outside of the Enhanced Wildlife Biosecurity (EWB) area, the highest risk area for TB in the MAZ, with implementing improvements to on-farm infrastructure and management.
- Expansion of deer surveillance efforts to identify additional cattle herds outside of the EWB area that have high deer pressure; and subsequently, a high risk of getting TB.
- Work in partnership with USDA Wildlife Services and owners of herds at high risk to protect their feed, cattle, and cattle areas as well as to remove deer that become habituated to living on the farm.

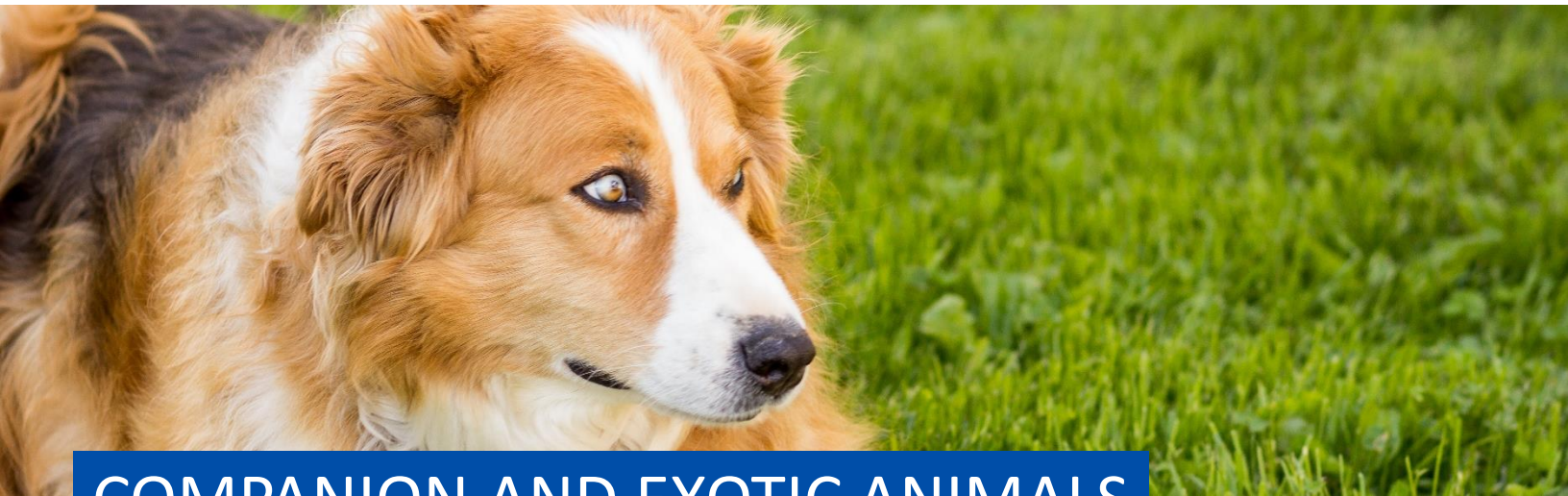


KEY STAKEHOLDERS:

- Michigan Farm Bureau
- Michigan’s Dairy Industry Associations
- Michigan Cattlemen’s Association
- Michigan Department of Natural Resources
- USDA APHIS, Wildlife Services
- USDA APHIS, Veterinary Services

LEGAL AUTHORITY:

- Public Act 466, as Amended
- CFR 9, Part 77
- Uniform Methods & Rules 2005



COMPANION AND EXOTIC ANIMALS

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The Companion and Exotic Animals Program investigates cases of reportable diseases within species such as dogs, cats, ferrets, and pet birds. Commonly reported diseases include rabies, leptospirosis, brucellosis, and poisonings. The program also authorizes animals to be tested for SARS-CoV-2, the virus that causes COVID-19 in people.

In addition, the program serves as a subject matter expert in state laws related to companion and exotic animals, oversees the importation of these animals into Michigan, licenses zoos to breed large carnivores (i.e., exotic cats and bears), and approves euthanasia and chemical capture training programs for animal shelters and dealers.

IMPACT FOR MICHIGAN:

The benefits of the program's activities are numerous. First, by identifying and rapidly addressing reportable diseases within companion and exotic animals, both animal health and public health are protected. Second, approving SARS-CoV-2 testing helps conserve limited testing resources, so only the most likely animals are tested. Through overseeing the importation of animals, the program helps to further protect public health by ensuring healthy animals are brought into Michigan and their movement can be traced. In addition, licensing large carnivores to breed helps threatened and endangered species to survive. Lastly, approving training programs ensures euthanasia and chemical immobilization curriculums are adequate.

ACCOMPLISHMENTS:

- Received and approved 22 requests to test animals for SARS-CoV-2, resulting in the identification of cases in a tiger from a Michigan zoo and a dog from Delta County.
- Investigated 220 suspected cases of reportable disease in companion and exotic animals; 141 of which were found to be actual cases.
- Released several new, revised educational infographics for the public, including information on pet safety during the holidays.
- Responded to three separate brucellosis clusters, one involving a breeding kennel and two involving imported shelter dogs.
- Responded promptly, in collaboration with the Centers for Disease Control and Prevention and the Michigan Department of Health and Human Services, to a dog imported into Michigan from Azerbaijan that was exposed to rabies (canine strain).

Metric	2020	2021
Percentage of investigations conducted timely* by field staff (target 100%)	86 % (18/21)	91 % (29/32)
Percentage of large carnivore breeding applicants alerted to incompleteness within 14 business days of receipt	50% (2/4)	None submitted
Percentage of complete large carnivore breeding applications approved or denied within 90 business days of receiving	100% (5/5)	None submitted

**In this context, “timely” refers to an inspection or investigation being completed by its due date and all related paperwork is submitted within the following seven business days.*

PROGRAM GOALS:

- Respond promptly to requests for SARS-CoV-2 testing and to complaints regarding reportable diseases, illegally imported animals, and ferrets and turtles sold without state-required advisory sheets.
- Finalize a response plan for rabbit hemorrhagic disease.
- Minimize cases of reportable diseases through effective response.
- Review and process large carnivore breeding license applications timely and thoroughly.
- Systematically and promptly review proposed euthanasia and chemical immobilization training programs and communicate approvals to stakeholders in a timely manner.



KEY STAKEHOLDERS:

- Michigan Department of Health and Human Services
- Michigan Department of Natural Resources
- Michigan State University
- United States Department of Agriculture
- Michigan Veterinary Medical Association
- Michigan Association of Animal Control Officers

LEGAL AUTHORITY:

- Act 466, PA 1988, as amended, The Animal Industry Act
- Act 358, PA 1994, Ferrets
- Act 424, PA 1988, Turtles
- Act 368 of 1978, as amended, Public Health Code
- Act 274, PA 2000, as amended, Large Carnivore Act



COMPLIANCE INVESTIGATIVE UNIT

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The Compliance Investigative Unit’s (CIU) purpose is to investigate allegations of violations to the laws, regulations, and program standards that the Animal Industry Division (AID) is responsible for carrying out under Chapter 286 and 287 of the Michigan Compiled Laws. The CIU is also tasked with utilizing fair and uniform progressive enforcement measures to obtain compliance with these laws, regulations, and program standards.

IMPACT FOR MICHIGAN:

The CIU is important to Michigan residents because it supports AID’s programs in protecting animal health and public health. Enforcement of the laws, regulations, and program standards helps to ensure a safe and high-quality food supply. Additionally, the CIU helps to safeguard the state from unwanted animal pests and diseases, which could substantially devastate segments of Michigan’s economy.

ACCOMPLISHMENTS:

- Closed investigations within 40 days over 85 percent of the time.

Metric	2020	2021
First-time offenders who did not repeat (target 90%)	95%	96%
Average time to complete investigations (target 40 days)	31 days	20 days
Average time to issue out investigations (target less than 7 days)	5 days	7 days

PROGRAM GOALS:

- Have 90 percent or more of first-time offenders not repeat the same violation of laws, regulations, or program standards.
- Complete investigations within 40 days on average from when an allegation is reported to the CIU.
- Define the role of the CIU within four of the Animal Industry Division’s program areas and develop clear compliance enforcement processes for each program.
- Create a process to regularly review department rules, regulations, and laws in order to address current industry / citizen standards and/or program relevancy.



KEY STAKEHOLDERS:

- Michigan Farm Bureau
- Michigan State Police, Commercial Vehicle Enforcement Division
- Michigan County Sheriff’s Offices

LEGAL AUTHORITY:

- Laws identified in Chapter 286 and 287 of the Michigan Compiled Laws
- Regulations identified under the Michigan Administrative Code



DEAD ANIMAL TRANSPORT AND DISPOSAL

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In Michigan, dead animals can be buried, composted, burned, or rendered—including being made into animal feed. The Animal Industry Division (AID) licenses and regulates businesses that produce animal feed and/or other products from dead animals and used restaurant grease. Additionally, AID licenses and regulates businesses that collect, transport, and/or transfer used restaurant grease and dead animals for further processing.

As part of this program, AID assists other agencies investigating improper animal disposal at non-licensed facilities by providing education on proper disposal.

IMPACT FOR MICHIGAN:

The Dead Animal Transport and Disposal Program ensures dead animals and grease are properly transported and processed. The program also looks for new alternatives to animal disposal to reduce the impact on the environment, allowing more disposal choices for animal owners.

If not properly disposed, dead animals can attract predators, spread disease to other animals and people, and be malodorous and unsightly. Dead animals also have the potential of negatively affecting the environment.

ACCOMPLISHMENTS:

- Licensed 16 dead animal and disposal-related businesses in 2021.
- Conducted routine inspections of all 15 licensed plants and transfer stations. These inspections were completed on time despite needing to modify how they were conducted because of the pandemic.

Metrics	2020	2021
Timely* inspections conducted by field staff (target 85% or greater)	70% (14/20)	74% (17/23)
Facilities found to be in compliance at annual inspection (target 70% or greater)	77% (10/13)	93% (14/15)

**In this context, “timely” refers to an inspection or investigation being completed by its due date and all related paperwork is submitted within the following seven business days.*

PROGRAM GOALS:

- Improve the public’s awareness of the proper disposal of animals.
- Conduct timely inspections (annual and pre-licensing) and complaint investigations of dead animal facilities and vehicles.
- Conduct yearly routine inspections of licensed facilities in conjunction with the Michigan Department of Agriculture and Rural Development's Pesticide and Plant Pest Management Division.
- Revise the current animal disposal brochure and potentially create additional materials on the subject for different audiences.
- Develop and utilize a new, fully web-based database for conducting licensing and inspections.



KEY STAKEHOLDERS:

- MDARD’s Pesticide and Plant Pest Management Division
- Michigan Department of Environment, Great Lakes, and Energy
- Michigan State University Extension
- National Renderers Association
- Law Enforcement

LEGAL AUTHORITY:

- Act 239, PA 1982, Bodies of Dead Animals and Regulations (BODA)



EMERGENCY MANAGEMENT

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The Emergency Management Program plans and facilitates activities that prepare the state to respond quickly and effectively to animal-related emergencies. This preparedness helps to protect livestock industries. For example, following thorough biosecurity protocols helps to prevent the introduction and spread of disease to other animals and to other farms.

Overall, these actions serve to maintain a healthy livestock industry, reduce animal suffering, protect human health, and provide for a safe and viable food supply.

IMPACT FOR MICHIGAN:

Thousands of livestock and livestock products are involved in Michigan's daily economic activity. The Emergency Management Program works to maintain continuity for livestock business entities during emergency situations. These efforts protect the state's livestock economy and Michigan jobs. Also, the program assists Michigan's residents with planning for and responding to disasters or emergencies that impact both livestock and companion animals. Examples of these types of disasters or emergencies include foreign animal disease outbreaks and natural disasters such as flooding and tornados.

ACCOMPLISHMENTS:

- Participated in and represented Michigan in three national exercises focused on the dairy and swine industries.
- Collaborated with industry partners and Michigan State University Extension on African swine fever response planning.
- Implemented quality control measures to improve the accuracy of premises information in USAHerds, a data management system routinely used by the Animal Industry Division for normal operations and animal-related emergencies.

Metric	2020	2021
Division staff trained in Incident Command System	98%	98%

PROGRAM GOALS:

- Identify and train staff to support an Incident Management Team within the Animal Industry Division (AID).
- Complete National Incident Management System training requirements for all AID staff.
- Continue to work on response plans for each species.
- Track and maintain adequate inventories of emergency response supplies and equipment.
- Support animal emergency response planning efforts with key partners.



KEY STAKEHOLDERS:

- Livestock and companion animal industries within Michigan
- Michigan State Police Emergency Management and Homeland Security Division
- Michigan Department of Environment, Great Lakes, and Energy
- Michigan Department of Natural Resources
- County Emergency Management Offices

LEGAL AUTHORITY:

- Act 466, P.A. 1988, as amended, the Animal Industry Act
- Act 390, P.A. 1990, Emergency Management Act
- Michigan Emergency Management Plan Animal Annex



EQUINE

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With 28 reportable equine diseases, one of the main goals of the Equine Program is to investigate any reports of these diseases in Michigan. Common reportable diseases include Eastern Equine Encephalitis (EEE), West Nile virus (WNV), herpesvirus-1, and strangles. In a typical year, the program receives about 40 reports of potential disease. Also, the program oversees the importation and intrastate movement of equine in Michigan and serves as a subject matter expert in state laws related to equine.

IMPACT FOR MICHIGAN:

The reportable equine diseases can cause serious disease and economic losses to the equine industry. Some of these diseases also pose a risk to humans, and equine can serve as a sentinel species for risk to humans. By promptly reporting cases to national industry platforms, it alerts other agencies and organizations to potential disease threats, so they can take additional actions to control and prevent the disease. Also, with overseeing the importation of equine into Michigan, the program helps to protect the health of animals and people by ensuring healthy animals are brought into Michigan and their movement can be traced.

ACCOMPLISHMENTS:

- Contributed to a manuscript outlining the history of EEE in Michigan, along with staff from Michigan's Departments of Natural Resources and Health and Human Services and Michigan State University. The manuscript was published in the November 21 issue of the *Journal of Medical Entomology*.
- Partnered with Michigan State University to deliver a webinar for veterinary professionals on equine reportable diseases.
- Responded to 85 reports of reportable equine diseases; 53 of these reports were confirmed to be Michigan cases.
- Received 26 requests to test suspect equine for WNV and EEE through federal grant money. Of these, 25 requests were approved; and 24 equine were tested, identifying six cases of EEE and four cases of WNV.
- Released new educational infographics for the public on equine vaccines.

Metric	2020	2021
Percent of investigations (related to both reportable disease and animal movement) completed in a timely* manner by field staff (Goal is 100%)	86% (6/7)	100% (4/4)
Percent of confirmed cases (regulated, monitored diseases) reported to the Equine Disease Communication Center within five business days of being reported to MDARD	100% (56/56)	96% (46/48)

**In this context, "timely" refers to an inspection or investigation being completed by its due date and all related paperwork is submitted within the following seven business days.*

PROGRAM GOALS:

- Respond in a timely and effective manner to cases of reportable diseases and complaints regarding the movement of equine (import/export).
- Minimize cases of reportable diseases through effective response.
- Report 100 percent of confirmed reportable diseases to the Equine Disease Communication Center.



KEY STAKEHOLDERS:

- Michigan Veterinary Medical Association
- Michigan State University
- United States Department of Agriculture, Veterinary Services
- Michigan Department of Health and Human Services
- Michigan Gaming Control Board
- Michigan Farm Bureau
- Michigan Horse Counsel
- Michigan Harness Horseman

LEGAL AUTHORITY:

- Act 466, PA 1988, as amended, The Animal Industry Act
- Act 93, PA 1974, Horse Riding Stables and Sales Barns



FAIRS AND EXHIBITIONS

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The Fairs and Exhibitions Program protects, regulates, and promotes animal health by performing inspections and educational outreach at fairs and exhibitions. The program and field staff work with these events to ensure all livestock not only appear healthy and have proper care but also have appropriate official identification, test charts, and (if needed) interstate certificates of veterinary inspection. Also, when notified, all reportable disease cases at fairs and exhibitions are investigated to assist with diagnostics and control of the disease. Additionally, the program emphasizes the role of biosecurity at these events to protect both animals and humans from disease.

IMPACT FOR MICHIGAN:

This program regulates fairs and exhibitions where livestock are shown. Both the commingling of animals from different premises and the overall stress caused by unfamiliar housing, ambient heat, and/or interaction with the public can contribute to disease. Also, with the animals having more direct public contact at these events, the risk of potential disease transmission is high. By implementing proper biosecurity and addressing disease issues, this program protects both animal and public health.

ACCOMPLISHMENTS:

- Visited and inspected 58 county and community fairs.
- Conducted avian influenza (AI) surveillance at three county fairs, testing poultry after receiving owner permission. This is a voluntary program offered to the fairs at no cost to them or the owners, which helps to protect Michigan flocks by testing birds for AI.
- Received no notifications of potential reportable diseases occurring at a fair or exhibition.

Metric	2020	2021
Local, county, community, and state fairs and exhibitions inspected	1	58
Reportable disease responses conducted by AID field veterinarians	0	0
Avian influenza surveillance testing performed (number of fairs)	0	3
Number of fairs with one or more violations	0	10

PROGRAM GOALS:

- Inspect as many county, community, and state fairs as possible and update MDARD’s Fairs and Exhibitions website.
- Present the current edition of the Fairs and Exhibitions Requirements at the annual Michigan Association of Fairs and Exhibitions (MAFE) convention and give other presentations as requested by MAFE or fair boards.
- Respond to, and investigate, any notification of a potential reportable disease occurring at a fair or exhibition.
- Conduct avian influenza surveillance testing at any fair wishing to participate.
- Continue to develop the relationships with key stakeholders (listed below) in order to provide education, outreach, and resources that will help to further protect, regulate, and promote animal health in Michigan.



KEY STAKEHOLDERS:

- Michigan Association of Fairs and Exhibitions
- MSU College of Veterinary Medicine
- MSU Extension
- MSU Veterinary Diagnostic Laboratory
- Michigan Department of Health and Human Services
- Local Public Health Departments

LEGAL AUTHORITY:

- Act 466, P.A. 1988 as amended, the Animal Industry Act



FARMED CERVIDS

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The practice of raising deer and elk (farmed cervids) in captivity is jointly regulated by the Michigan Department of Natural Resources (DNR) and the Michigan Department of Agriculture and Rural Development’s (MDARD) Animal Industry Division (AID). AID manages the animal health component of this program, including chronic wasting disease (CWD), bovine tuberculosis (TB), and movement.

IMPACT FOR MICHIGAN:

Deer and elk are raised for breeding, meat production, private hunting, animal watching, and specialty products. Maintaining healthy farmed cervids is critical to protecting the health status of the free-ranging population of white-tailed deer and elk in Michigan. Disease surveillance programs provide early detection of infected individuals, which reduces the spread of disease. Also, herd certification and accreditation programs minimize the risk of introduction, transmission, and spread of disease in farmed cervid populations.

ACCOMPLISHMENTS:

- Welcomed a new member to the Farmed Cervids Program staff.
- Responded to and managed CWD-positive deer farms.
- Issued 453 movement permits in 2021, with an average turnaround time of three days.
- Received cooperative agreement funding from the United States Department of Agriculture (USDA) to conduct genomic predictions for selective breeding to reduce susceptibility to CWD in farmed cervids.

Metric	2020	2021
Percent of herds where CWD Certification was completed within 42 days	60%	80%
Percent of herds where TB Accreditation was completed within 42 days	58%	92%
Number of deer and elk imported into Michigan	5	8
Number of herds involved in special surveillance zones around CWD positive free-ranging deer	84	84

PROGRAM GOALS:

- Work cooperatively with the DNR to mitigate the impact of CWD in both free-ranging and farmed cervids in Michigan.
- Continue to implement the changes outlined in the revised Animal Industry Act for farmed cervids.
- Maintain Approved State Status for the USDA CWD Herd Certification Program.
- Provide excellent customer service in farmed cervid regulatory disease programs by processing CWD Certifications and TB Accreditations within 42 days.



KEY STAKEHOLDERS:

- Michigan deer and elk farmers
- Cervid Advisory Committee
- USDA Animal and Plant Health Inspection Service
- Michigan Department of Natural Resources
- United Deer Farmers of Michigan

LEGAL AUTHORITY:

- Act 466, P.A. 1988, as amended, the Animal Industry Act
- Act 190, P.A. 2000, the Privately-Owned Cervidae Producers Marketing Act Memorandum of Understanding with Department of Natural Resources
- Nine Code of Federal Regulations (CFR) Part 55 9 CFR Part 77
- Bovine Tuberculosis Eradication: Uniform Methods and Rules, Effective January 22, 1999
- Chronic Wasting Disease Program Standards, USDA, May 2014



LARGE-SCALE DOG BREEDING KENNELS

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The Large-scale Dog Breeding Kennels (LDBK) Program provides state regulatory oversight on dog kennels with more than 15 qualifying females that are in the business of selling puppies. The LDBK Program ensures specific standards are met in order to ensure healthy dogs as well as their safe housing and adequate care. In addition, puppies are required to be accompanied with a current pet health certificate.

It is crucial to note these kennels may also require local kennel licensing or licensing by the U.S. Department of Agriculture.

IMPACT FOR MICHIGAN:

Companion animals play an increasingly important role in Michigander’s lives. Breeding kennels are a resource for specific types of dogs, which can help people find a dog compatible with their lifestyle or service need. Breeding kennels also provide dogs to people who enjoy participating in expositions and sporting activities. This program offers a relatively new opportunity to work with this segment of the companion animal industry as well as our local animal care partners.

ACCOMPLISHMENTS:

- Collaborated with the newly-formed Michigan Council on Animal Welfare to provide outreach and education regarding the large-scale dog breeding kennel requirements in Michigan.
- Reviewed and updated kennel materials, emphasizing enhanced biosecurity protocols and interstate movement of canines.

Metric	2020	2021
Follow-up on registration assessments for requesting kennels (target 95%)	100%	100%
Number of registered large-scale dog breeding kennels	12	13

PROGRAM GOALS:

- Partner with key stakeholders to determine the best practices for identifying and resolving issues with non-compliant large-scale dog breeding kennels.
- Collaborate with animal control agencies to provide key updates and discuss emerging issues within the Large-scale Dog Breeding Kennels Program.
- Work toward obtaining full functionality of the database used to manage the program, allowing for improved efficiencies regarding system-generated registrations and data input/sharing.



KEY STAKEHOLDERS:

- Michigan Association of Animal Control Officers
- Michigan’s counties, cities, villages, townships, and other local units of government
- Michigan Council on Animal Welfare (MI-CAW)
- Michigan dog breeders
- Michigan Veterinary Medical Association
- Michigan companion animal veterinarians
- Michigan pet shops

LEGAL AUTHORITY:

- Act 287, PA 1969, as amended
- Regulation 151
- Act 339, PA 1919, Dog Law of 1919



LIVESTOCK DEPREDATION

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The Livestock Depredation Program provides fair and timely compensation to livestock owners for animals killed, injured to the extent of requiring euthanasia, or missing as a result of wolves, coyotes, and cougars. Some areas of the state, and certain species of livestock and their offspring, experience greater than average depredation events.

IMPACT FOR MICHIGAN:

The Livestock Depredation Program supports local businesses, communities, and economies by assisting livestock producers in areas of the state with high populations of predators.

ACCOMPLISHMENTS:

- Collaborated with the Michigan Department of Natural Resources (DNR) to improve the quality of livestock depredation investigation reports.
- Processed all livestock depredation claims within 45 days of receipt, as described in the Memorandum of Understanding with DNR and in statute.

Metric	2020	2021
Number of livestock killed by wolves, coyotes, or cougars	58	28
Number of livestock reported missing	0	0
Number of livestock producers submitting claims	18	14
Total of payments made for depredation or missing livestock	\$13,601.94	\$13,196.80
Average number of days between depredation claim and payment	12	25

PROGRAM GOALS:

- Process all livestock depredation claims within 45 days of receiving all approved and completed forms from the DNR and livestock producers.
- Continue communication efforts to livestock producers in high-risk areas on mortality management best practices to minimize attracting predators, reducing livestock depredation claims.
- Assist new producers with registration in SIGMA (the State’s accounting system) to reduce the average number of days between the depredation claim and payment.



KEY STAKEHOLDERS:

- Michigan Department of Natural Resources
- United States Department of Agriculture Animal and Plant Health Inspection Service, Wildlife Services
- Michigan livestock producers

LEGAL AUTHORITY:

- Wildlife Depredations Indemnification Act, Public Act 487 of 2012



LIVESTOCK MARKETS

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The Livestock Markets Program provides regulatory oversight on animal welfare, disease control, and traceability issues pertaining to livestock marketing activities. Entities engaged in the business of buying, selling, transporting, or negotiating the sale and transfer of livestock are required to maintain records and be licensed and bonded when appropriate. Additionally, licensed livestock facilities and transport vehicles must be well-maintained to ensure animal welfare and human safety as well as to prevent the spread of disease.

IMPACT FOR MICHIGAN:

The Livestock Markets Program protects, regulates, and promotes animal health and traceability by enforcing the Licensing Livestock Dealers Act. Keeping these businesses in compliance mitigates the risk of spreading animal diseases and ensures the economic success of this sector of the agricultural industry.

ACCOMPLISHMENTS:

- Administered license inspection training for field staff, emphasizing livestock trailer assessments.

Metric	2020	2021
Licensed livestock markets and buying stations inspected	100%	100%
Licensed livestock dealers and truckers inspected (target 40%)	0%*	0%*

**No inspections were assigned in 2020 and 2021 due to an increased workload in the Bovine Tuberculosis Program and the risk of COVID-19 exposure.*

PROGRAM GOALS:

- Implement revised inspection standards for increased transparency and consistency.
- Transition from using multiple databases and filing systems to using one shared database, improving internal communications and efficiency.



KEY STAKEHOLDERS:

- U.S. Department of Agriculture
- Michigan Farm Bureau
- Livestock Marketing Association
- United Producers, Inc.

LEGAL AUTHORITY:

- Public Act 284 of 1937, as amended, the Licensing Livestock Dealers Act
- Public Act 466 of 1988, as amended, the Animal Industry Act



POULTRY

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The Poultry Program is responsible for responding to cases of reportable avian diseases, maintaining an active and passive surveillance program for avian influenza in compliance with the National Poultry Improvement Plan, and collaborating with Michigan’s commercial poultry industry and other stakeholders on emergency avian disease response planning. In addition, the program works with Michigan State University (MSU) Extension and Michigan Allied Poultry Industries, Inc. (MAPI) to maintain a statewide group of certified pullorum testers to meet the needs of poultry exhibitors at Michigan fairs.

IMPACT FOR MICHIGAN:

Michigan’s poultry industry contributes a combined \$725 million to the state’s economy, and the industry continues to grow. Michigan’s poultry industry includes broiler, table-egg, and turkey flocks as well as breeding flocks of exhibition birds, table-egg hens, and upland game birds. In addition to the commercial industry, there are many small flocks throughout the state that are kept for exhibition, food, or simply as a hobby. The Poultry Program aims to protect all of Michigan’s poultry flocks from reportable diseases and to respond quickly and effectively when such a disease is detected. By protecting flocks, the program helps to safeguard Michigan’s economy, food availability, and public health.

ACCOMPLISHMENTS:

- Responded to 23 reportable disease cases in backyard and commercial poultry operations.
- Responded to an animal welfare situation involving poultry.
- Continued coordination between the Poultry Program, MAPI, and MSU Veterinary Diagnostic Laboratory for Pullorum Testing Certification at Michigan fairs and exhibitions.
- Continued planning and preparing highly pathogenic avian influenza in collaboration with the Animal Industry Division’s Emergency Management Coordinator.

Metric	2020	2021
County fairs participating in avian influenza surveillance	0*	3
Birds tested as part of the active avian influenza surveillance program for the National Poultry Improvement Plan Subpart E flocks	570	660

** Due to the COVID-19 pandemic, the majority of the state's fairs were cancelled.*

PROGRAM GOALS:

- Perform avian influenza surveillance at county fairs.
- Conduct a Certified Pullorum Tester School.
- Assist industry in compliance with the National Poultry Improvement Plan's H5/H7 avian influenza monitored and clean programs.
- Maintain Michigan's Initial State Response and Containment Plan for low pathogenic avian influenza, according to U.S. Department of Agriculture requirements.
- Continue to plan and prepare for an emergency poultry disease response, particularly highly pathogenic avian influenza.



KEY STAKEHOLDERS:

- Michigan Allied Poultry Industries, Inc.
- Michigan State University Veterinary Diagnostic Laboratory
- Michigan State University Extension and 4H
- United States Department of Agriculture's Animal and Plant Health Inspection Service, Veterinary Services
- Michigan Farm Bureau

LEGAL AUTHORITY:

- Act 466, PA 1988, as amended, The Animal Industry Act
- Code of Federal Regulations (CFR) parts 145, 146 and 147, The National Poultry Improvement Plan (NPIP)



SHEEP AND GOATS

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The Sheep and Goats Program focuses on ensuring these animals have proper official identification and providing educational information to producers on scrapie and other animal health concerns. Scrapie is a transmissible spongiform encephalopathy affecting sheep and goats. The presence of scrapie in the U.S. sheep and goat population can have an economic impact through production losses, lost exports, and disease costs.

Reportable diseases for sheep and goats, such as scrapie, are tracked and investigated by the Michigan Department of Agriculture and Rural Development's Animal Industry Division when appropriate.

IMPACT FOR MICHIGAN:

Producers of sheep and goats in Michigan can participate in interstate and international trade because of a maintained scrapie-free status. Monitoring for proper official identification on sheep and goats at livestock markets provides animal disease traceability and minimizes the use of resources in disease investigations.

ACCOMPLISHMENTS:

- Welcomed a new staff member to the Sheep and Goats Program.
- Investigated and responded to reportable diseases.
- Continued education and outreach efforts to sheep and goat producers on the importance of scrapie ID requirements and recordkeeping.

Metric	2020	2021
Compliance actions for inadequate official identification observed at livestock markets	30	35
Scrapie identification compliance at livestock markets for sheep	96%	99%
Scrapie identification compliance at livestock markets for goats	93%	86%

PROGRAM GOALS:

- Maintain state status for the United States Department of Agriculture’s Scrapie Eradication Program.
- Continue efforts to ensure all sheep and goats leaving a Michigan premises have proper official identification.
- Investigate reportable diseases in sheep and goats when a situation arises.



KEY STAKEHOLDERS:

- Michigan sheep and goat farmers
- Michigan livestock markets
- United States Department of Agriculture’s Animal and Plant Health Inspection Service, Veterinary Services
- Michigan Sheep Producers Association
- American Goat Federation

LEGAL AUTHORITY:

- Act 466, P.A. 1988, as amended, the Animal Industry Act
- CFR 54-Control of Scrapie
- Scrapie Eradication Uniform Methods and Rules, effective June 1, 2005



SWINE

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The Swine Program supports the state's swine industry through implementing, maintaining, and coordinating animal health programs. These programs focus on preventing foreign animal diseases, specifically African swine fever (ASF), classical swine fever (CSF), and foot-and-mouth disease (FMD). To be prepared for a disease response, the Michigan Department of Agriculture and Rural Development creates emergency plans and participates in exercises. Also, the program manages swine importation requirements and Swine Health Plan agreements with other states.

IMPACT FOR MICHIGAN:

The swine industry in Michigan is a growing and significant part of the state's agricultural economy. To keep this industry vibrant, pigs and pork products must have access to both U.S. and international markets. It is vitally important that the U.S. remains free of foreign animal diseases to keep these channels open. In addition, other emerging diseases could cause significant economic impacts to the industry while zoonotic diseases could affect both swine and human health.

ACCOMPLISHMENTS:

- Collaborated with industry during the inaugural U.S. Swine Health Improvement Plan, House of Delegates session, which was aimed at preparedness and future surveillance for ASF and CSF.
- Participated in an ASF workgroup (which included regulatory staff from the 15 top swine-producing states, U.S. Department of Agriculture, and industry representatives) to develop consistent response plans.
- Advanced Michigan's Secure Pork Supply planning and preparedness in partnership with the Michigan Pork Producers Association and Michigan State University Extension.

Metric	2020	2021
USDA pseudorabies and brucellosis Free, Stage 5 status	Maintained	Maintained
Seneca Valley Virus investigations/number of positive pigs	101/424	91/308

PROGRAM GOALS:

- Work with external stakeholders to help producers develop, improve, and know how to implement Secure Pork Supply Plans during a foreign animal disease (FAD) outbreak.
- Increase producer awareness of biosecurity protocols and other mitigation practices to prevent the introduction of a foreign animal disease into Michigan production facilities.
- Maintain Michigan’s pseudorabies and brucellosis free status.



KEY STAKEHOLDERS:

- Michigan Pork Producers Association
- Michigan State University Extension
- Michigan State University College of Veterinary Medicine
- Michigan Swine Health Committee
- Michigan State University Veterinary Diagnostic Laboratory
- Michigan Department of Natural Resources

LEGAL AUTHORITY:

- Animal Industry Act, 1988 PA 466, as amended
- Pseudorabies and Swine Brucellosis Control and Eradication Act, 1992 PA 239



VETERINARY BIOLOGICALS

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Companies and manufacturers selling or distributing veterinary biologics in Michigan are regulated by the federal and state government. Veterinary biologics are regulated federally through Title 9, subchapter E, Part 101-123 of the Code of Federal Regulations. At the state level, the Michigan Department of Agriculture and Rural Development (MDARD) Director has the authority to restrict the sale and distribution of veterinary biologics when necessary for the protection of domestic animals or the public's health, interest, or safety through the Animal Industry Act, 1988 PA 466, MCL 287.743. Sale and distribution requests are submitted to MDARD through the State Veterinarian's office. Approvals or denials are based on requirements outlined in the statute and rules.

IMPACT FOR MICHIGAN:

Michigan's 3,000 licensed veterinarians and 35 million domestic animals rely on veterinary biologics. These products help ensure animal health, create a safe food supply, and protect the general public from zoonotic diseases.

ACCOMPLISHMENTS:

- Assisted with 13 studies exploring new products/uses for veterinary biologics.

Metric	2020	2021
Approvals for veterinary biologicals	175	148
Approvals for autogenous vaccine/bacterin	158	134
Doses of autogenous vaccine/bacterin	26,633,100	11,776,295
Approved veterinary biological studies	17	13

PROGRAM GOALS:

- Ensure veterinary biologicals are safe, effective, and available for the diagnosis, prevention, and treatment of animal diseases.
- Have an efficient and effective approval/denial process for veterinary biologicals.
- Improve the ability to measure the impact of the Veterinary Biological Program.



KEY STAKEHOLDERS:

- Private veterinarians
- Pharmaceutical companies
- Livestock producers and pet owners

LEGAL AUTHORITY:

- Act 466, P.A. 1988, as amended, the Animal Industry Act R 287.703 Importation, distribution, and use of veterinary biologicals

APPENDIX A: 2021 REPORTABLE DISEASES

Livestock Diseases:

Disease	Species	Number of Animals
Anaplasmosis	Bovine	1
Bovine Leukemia Virus	Bovine	337
Johnes	Bovine	88
Listeriosis	Bovine	3
Toxic Substance Contamination (Lead)	Bovine	2 Herds
Tuberculosis	Bovine	1 Herd
CAE (Caprine Arthritis Encephalitis)	Caprine	113
Chlamydia	Caprine	1
Johnes	Caprine	16
Listeriosis	Caprine	4
CWD (Chronic Wasting Disease)	Cervid	19
Johnes	Cervid	4
Listeriosis	Cervid	1
Tuberculosis	Cervid	1
Bluetongue Virus	Ovine	2
Brucellosis	Ovine	1
CAE (Caprine Arthritis Encephalitis)	Ovine	2
Listeriosis	Ovine	3
Seneca Valley Virus	Porcine	308
Toxic Substance Contamination (Selenium)	Porcine	2
Duck Viral Enteritis	Poultry	1
ILT (Infectious Laryngotracheitis)	Poultry	1
Mycoplasma gallisepticum	Poultry	4 Flocks
Mycoplasma meleagridis	Poultry	1
Mycoplasma synoviae	Poultry	16 Flocks

Small Animal, Equine, and Exotic Diseases:

Disease	Species	Number of Animals
Batrachochytrium dendrobatidis	Amphibian	1
Rabies	Bat	48
Brucellosis	Canine	14
SARS-CoV-2	Canine	1
Leptospirosis	Canine	66
Rabies	Canine	1
Toxic Substance Contamination (HABs)	Canine	2
Toxic Substance Contamination (Methomyl)	Canine	1

Tuberculosis (Canine leproid granuloma)	Canine	1
EEE (Eastern Equine Encephalomyelitis)	Equine	9
EIV (Equine Influenza Virus)	Equine	4
Equine rhinopneumonitis (EHV-1 non-EHM)	Equine	1
Strangles	Equine	32
West Nile Virus	Equine	7
SARS-CoV-2	Exotic Felid	1
West Nile Virus	Exotic Bovid	1
SARS-CoV-2	Feline	1
Tuberculosis (M. goodie and M. avium)	Feline	2
Tuberculosis (M. tuberculosis)	Primate	1

APPENDIX B: 2021 DEPREDAATION REPORT

Vendor Name	# Animals	Species	Reason	Amount
Buckham Farms	2	Ovine	Coyote - Kills	\$525.13
Dykstra, Terry	12	Bovine	1 Coyote - Kill 11 Wolf - Kills	\$6,915.51
Haindl, Jon	1	Bovine	Coyote - Kill	\$275.00
Kowalski, Nathan	1	Caprine	Coyote - Kill	\$203.13
Miller, Dannie (Daniel)	7	Ovine	Coyote - Kills	\$789.50
Miller, Joe D.	2	Ovine	Coyote - Kills	\$465.38
Miller, Joe E.	6	Ovine	Wolf - Kills	\$1,284.02
MSU UP Research Center	1	Bovine	Coyote - Kill	\$275.00
Pine Rock Ranch, LLC	1	Bovine	Wolf - Kill	\$700.00
Piawarski, Larry	1	Bovine	Coyote - Kill	\$235.00
Scarcelli, Frank	1	Ovine	Coyote - Kill	\$286.00
Stapleton, John	1	Bovine	Coyote - Kill	\$400.00
Weatherby, Will	1	Caprine	Coyote - Kill	\$583.13
Wernette, Anthony	1	Ovine	Coyote - Kill	\$260.00
TOTALS	28			\$13,196.80