Michigan Department of Agriculture

Animal Industry Division 2008 Annual Report

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Animal Industry Division Overview

The Animal Industry Division (AID) protects the health of domestic animals, livestock and pets. Protecting the health of animals provides protection for human health. The State Veterinarian directs the Division, and is responsible for livestock, poultry and farmed fish disease programs and toxic substance contamination concerns as they relate to animal health. The division also works on the eradication of animal diseases, which not only improves animal health, but also allows for the importation and exportation of healthy livestock. These provisions have a significant impact on human health and welfare through the protection of the food supply. Some of the diseases threatening Michigan livestock are bovine tuberculosis (TB), Chronic Wasting Disease (CWD), Pseudorabies (PRV), Eastern Equine Encephalitis (EEE), Equine Infectious Anemia (EIA), pseudorabies, rabies, and various toxicities. Some of these diseases are considered zoonotic, meaning they can infect humans as well as animals – for example, bovine TB, rabies, and EEE are zoonotic diseases.

AID is involved in food safety, animal welfare, monitoring of infectious diseases of birds, cattle, swine, sheep and goats, horses, and farmed fish, as well as companion animals. AID has programs to improve food safety by enhancing the health of farm animals. The state also has a cooperative educational program for veterinarians and livestock producers to reduce the incidence of drug residues in food animals. AID works with Michigan Allied Poultry Industries, Inc., to maintain Michigan's status as Salmonella pullorum-free.

AID licenses and regulates a variety of animal industries including livestock dealers, truckers, sales and auction markets, renderers (carcass dealers), riding stables, pet shops, animal control/ protection shelters, and commercial fish hatcheries and aquaculture facilities. AID monitors health and care of animals at a variety of licensed facilities including pet shops, animal control and protection shelters, and riding stables. AID works with local law enforcement and animal welfare agencies to investigate complaints of inhumane treatment of livestock and domestic animals. The Division investigates all reportable disease cases such as bovine TB, brucellosis, zoonotic influenza viruses, rabies, and pseudorabies, to stop the spread of disease to animals and to humans.

Animal ID Program – Kevin Kirk

Michigan is the only state in the nation requiring all cattle to be identified with official radio frequency identification (RFID) ear tags. These tags are tied to a particular farm or ranch (premises) allowing for rapid tracing of animal movements. RFID tags are an important component of the bovine TB eradication effort and enhance AID's ability to track movement of cattle in the event of a disease outbreak.

As of December 31, 2008, Michigan had 21,695 premises registered in the national database, thus achieving the goal of having 75 percent of the premises in the national database. Beef producers and dairy farmers have ordered 1,718,593 RFID tags. As of December 31st, 480,776 RFID tags were scanned at Michigan markets and 332,888 RFID tags were scanned at slaughter facilities. Electronic reader performance at the livestock markets is in the 90 percent range most weeks. Several RFID readers in livestock markets were upgraded.

MDA staff participated in 15 industry meetings and conferences both in Michigan and out-of-state to discuss ID programs, share ideas, and network with other states working on animal ID projects.

MDA increased the usage of RFID electronic readers with several veterinarians conducting bovine TB testing and expanded the use of movement certificates between TB zones. MDA implemented herd reconciliation plans for the MAZ using RFID tags. MDA also conducted a statewide mailing to accredited veterinarians about the use of premises numbers for all USDA Veterinary Services disease program activities starting in 2009.

Avian Influenza Program – Angela Butler, DVM

Avian influenza (AI) is a viral disease of birds. Avian Influenza viruses are classified based on their ability to cause disease (pathogenicity). Pathogenicity refers to the ability and strength of the virus to produce disease. Many AI viruses have low-pathogenicity (LPAI), while some have high-pathogenicity (HPAI). HPAI H5N1, often referred to as the "Asian" H5N1, is the strain type causing worldwide concern. LPAI H5N1, often referred to as the "North American" H5N1, is of less concern, but can mutate into a high-path strain. Low-path AI commonly occurs in wild birds and generally causes no/minor signs of disease. It is rarely fatal in birds. The low pathogenicity strains, including LPAI H5N1, are not a human health concern.

State and federal Michigan veterinarians and wildlife biologists conduct surveillance for highly pathogenic AI. Evidence of LPAI H5N1 has been found on occasion in wild birds in the United States in recent years. These detections occur as part of routine sampling, not as a result of noticeable illness in birds. LPAI H5N1 was detected in ducks in Manitoba, Canada in 2005 and in a Michigan swan in 2006. These North American LPAI H5N1 strains are not closely related to the more severe HPAI H5N1 circulating overseas.

Bovine Tuberculosis Program

Bovine Tuberculosis (TB) is a bacterial disease that can infect any warm-blooded animal, including humans. In animals, the infection is chronic and incurable, while treatment of humans infected with Mycobacterium bovis requires a long course of multiple antibiotics. Although the preferred host of bovine TB is cattle, the bacteria is known to infect other animals, including white tailed deer.

Program Summary

The goal of Michigan's Tuberculosis program is to eradicate bovine TB from the state's domestic livestock and wildlife. Michigan faces a great challenge in attaining this goal because of the reservoir of infection in native wild white-tailed deer. Michigan currently has three bovine tuberculosis status areas: TB Free zone in the Upper Peninsula, and the Modified Accredited Advanced zone (MAAZ) and the Modified Accredited zone (MAZ) in the Lower Peninsula. The MAZ is the area of northern Lower Michigan where bovine TB has been found in both wild white tailed deer and domestic cattle. A combination of slaughter (passive) and live animal (active) testing are currently used for surveillance in cattle herds in the MAZ. Examination of deer submitted by hunters during regular and special harvest seasons is used for surveillance in the wildlife population.

Bovine TB infected cattle herds 2008

In 2008, two beef herds were identified as being infected with bovine TB, bringing the total number of infected cattle herds in Michigan to 45. A medium sized (over 50 and under 100 head) beef herd in Oscoda county was confirmed infected with bovine TB on 1/17/2008; and a small beef herd (less than 50 head) in Alpena County was confirmed infected on 12/03/08.

Surveillance in Michigan – Mike Vanderklok, DVM

In the MAZ, surveillance is conducted through annual whole-herd testing of all cattle herds, except freezer beef herds and approved feedlots. Risk-based surveillance testing is done in the MAAZ and Bovine TB Free zones. Federal slaughter inspection of cattle at USDA inspected plants and individual bovine TB testing of cattle before movement off a farm are also part of the surveillance program.

Of the 114,085 cattle tested for bovine TB with the initial caudal fold test, 110,812 animals tested negative and 3,273 tested suspect. Of those suspects, only two were infected with bovine TB.

Risk Based Surveillance – Mike Vanderklok, DVM

Michigan implemented a USDA approved risk-based surveillance plan for calendar year 2008 in March, 2008. This surveillance plan allows MDA to focus resources on cattle in areas with the greatest risk of infection and includes testing in the MAZ, MAAZ, and Bovine TB Free zones of Michigan. Priorities include increased testing of higher risk herds which include herds with cattle purchased from a bovine TB infected herd, those within a 10-mile circle of bovine TB infected wildlife, and those herds in higher risk areas (determined by modeling and risk assessment scenarios).

Counties in the MAAZ, but adjacent to the MAZ, are considered higher risk. In the MAAZ Moderate Risk Area, 534 herds will be tested, while in the MAAZ Low Risk Area, a total of 232 herds will be tested. Twenty-five (25) herds are selected for testing in the Free Zone. Goals for surveillance testing in the MAAZ and Free Zone for 2008 were met when 532 herds were tested.

Law Enforcement Assistance – Al Rodriguez

Law enforcement assistance from the State Police was an important part of the Compliance Program in 2008. MDA remained pro-active in enforcing cattle movement requirements related to the bovine TB Program.

Breakdown of the mobile livestock patrol both at the Agriculture Inspection Station at the Mackinac Bridge and along the MAZ-MAAZ border for 2008.

Activity	Number
Hours worked	2,566
Vehicle stops	77
Inspections	66
Citations	2
Complaints	3

Mackinac Bridge Movement Surveillance – Al Rodriguez

MDA's presence at the Mackinac Bridge is necessary to ensure that cattle moving across the bridge (from the MAZ to the Free zone) have met bovine TB testing and movement requirements. Monitoring is critical to preventing introduction of TB infected animals into the Upper Peninsula, which could jeopardize the Bovine TB Free status in the UP.

Bovine TB compliance activities conducted during 2008:

A. Inspection reports
- Total Reports Taken: 373
- Bovine Reports: 43

B. Head count
- Total Bovine Reported: 6,919
- Bovine for Slaughter: 5,581
- Bovine Owner Transport: 1338

C. Drive-by/empty surveillance
- Empty Trailer Inspections:. 220
- Fast Pass Inspections: . . . . . 26 (All Equine)
- Drive-by Trailers Observed: . . . . . 24 (seven) intercepted by Patrol

D. Investigations
- No Paperwork/Improper Paperwork 5
- Possible Movement Certificate Violation 2

Bovine TB Enforcement – Al Rodriguez

Immediate enforcement of potential violations through pursuit and stopping of livestock vehicles not stopping at the checkpoint and random surveillance of movements from the MAZ to the MAAZ is conducted through the Mackinac County Sheriff's Office. This is done under a memorandum of understanding with MDA. The Michigan State Police Traffic Safety Division/MDA memorandum of understanding was renegotiated in the 4th Quarter to meet USDA requirements after a TB Program review was conducted by USDA APHIS.

Activities at the Agriculture Inspection Station between the MAZ and TB Free Zone showed that 81percent (5,581 head of 6,919) of the cattle went to slaughter. Of the 373 inspections of livestock vehicles hauling cattle, seven were investigated for movement without permits. Of these, five were issued warnings for improper paperwork (cattle destined to slaughter) and two were found in compliance with movement certificates.

Wildlife Risk Mitigation Project – Rick Smith, DVM

One goal of the bovine TB eradication effort is to decrease the interaction between wildlife and domestic cattle. MDA contacted all producers in the core five county area and offered an on-farm wildlife risk assessment. These assessments are conducted by USDA Wildlife Services biologists and an Alpena Conservation District conservationist, who draft Wildlife Risk Mitigation Action Plans and help producers walk through the process of applying for either cost-share MDA funds or USDA funds.

AID sent a letter October 6, 2008 introducing the program and the wildlife biologists and conservationist. Apart from this initial introduction, the assessors are responsible to make phone and mail contacts according to the following priorities: 1) A premises with previous history of bovine TB infection; 2) herds located less than 10 miles from other TB positive herds; 3) herds located within 30 miles of the center of DMU 452; 4) other herds in the 5 county area requesting a risk assessment/risk mitigation assistance and; 5) other MAZ herds requesting a risk assessment/ risk mitigation assistance.

Once contacted for a wildlife risk assessment, the assessors will schedule an appointment and make a farm visit and assess the farm's wildlife risks using the Wildlife Risk*A*Syst tool. From August 18th to December 31st, 2008, Wildlife Risk Mitigation assessments were done using the Wildlife Risk*A*Syst tool and 21 Risk Mitigation Plans were developed.

Brucellosis Project – Angela Butler, DVM

Canine brucellosis (CB) is a contagious bacterial disease of dogs, usually sexually transmitted, that causes abortions, death of puppies, and chronic health problems in adult dogs. Canine brucellosis is a reportable disease and an emerging concern in dog breeding facilities and "puppy mills" in Michigan. There is no vaccine for the disease and no long-term cure. Antibiotics will control the infection and spaying dogs will minimize the risk of transmission.

CB is considered a zoonotic disease. Although people can become infected with canine brucellosis from infected pets, transmission is very rare. It is generally transmitted through handling birthing tissues from an infected dog, although it can be transmitted in water and food dishes, in urine, and in feces. Children, the elderly, and immunosuppressed people are more susceptible and there is a higher risk to people working in infected kennels.

Canine brucellosis was confirmed in five Michigan breeding kennels that provide small, mixed breed, and purebred dogs to pet shops and individual pet owners. The Missaukee, Osceola, Wexford, and Van Buren county kennels were quarantined and MDA notified known purchasers of the illness and recommended pets be tested.

MDA has limited information that the illness might be present in other canine populations. An individual in Macomb County adopted a recently spayed female dog from an animal shelter; the new owner brought the dog to her veterinarian because of signs of illness. The dog was tested and found positive for canine brucellosis. The veterinarian treated the dog with a course of antibiotics. The dog is home and is not considered infectious. To limit the potential spread of infection, the State Veterinarian strongly recommends pet shops purchasing puppies for resale require the kennel of origin provide evidence that all animals are tested negative for brucellosis. This includes puppies from kennels in other states.

The State Veterinarian also recommends sexually intact dogs from unknown backgrounds, or adopted from shelters, be screened for CB. State law requires adopted dogs and cats to be spayed and neutered by the new owners, in order to safeguard public health.

MDA quarantined the breeding kennels and some were depopulated at the owners' expense, others are on a test-and-remove program. With test-and-remove, the kennel remains quarantined, with no sales allowed; and the animals are treated with antibiotics until there is no infection.

Known individuals who purchased or traded dogs from these kennels have been contacted. Since some neighbors' dogs were allowed to breed at the kennels these individuals were also contacted. Unfortunately, some of the kennel operators do not have complete records; as a result, the State Veterinarian sent out a request to private veterinarians to be on heightened alert for canine brucellosis, in small, mixed breed, and pure bred small dogs, and dogs found at shelters. The Michigan Veterinary Medical Association (MVMA) assisted MDA by contacting practicing veterinarians. Veterinarians exposed to the blood, or placentas, of infected dogs are at risk for the disease.

Cervid Program – Angela Butler, DVM

Chronic Wasting Disease (CWD)

MDA confirmed the state's first case of Chronic Wasting Disease (CWD) in a three-year old white-tailed deer from a Privately Owned Cervid (POC) facility in Kent County on Monday, August 25, 2008. The disease investigation did not conclusively determined where or how CWD was transmitted to the deer. In order to prevent the potential spread of the disease, MDA quarantined all POC facilities, prohibiting any movement of privately owned deer, elk, or moose.

Under the direction of MDA's Emergency Manager, and with help from DNR staff, 27 MDA employees were trained under "emergency conditions" in four days to audit POC facilities. One hundred twelve facilities were contacted, 77 confirmed they were in compliance with Public Act 190 and were visited by staff. The field audits resulted in the release of 50 quarantines. POC quarantines were systematically lifted as audits confirmed compliance with rules, regulations, and disease surveillance.

A total of 172 POC facilities were released from quarantine by January 2009. Over 2,300 privately owned cervids were tested for CWD; all, but the original case in Kent County, were negative. No other CWD positive animals were found.

Per DNR, there were 48 POC facility owners who elected to get out of the business and were in the process of de-commissioning. By January 2009, 12 facilities had completed the process and have been de-commissioned.

Communication Projects – Bridget Patrick

The MDA Animal Industry Division has unique communication needs that require stakeholder outreach for regulatory purposes and risk communications for the general public. In 2008, there were five major areas of concern that required concentrated communications for disease investigations and or/planning.

Bovine Tuberculosis Communications

The bovine TB eradication and cattle ID programs conducted stakeholder outreach through billboards, border crossing signs, radio messages, and videos. The wildlife risk mitigation/ biosecurity messaging from the State Veterinarian, "Do your part to Stop Bovine TB" was placed on every TV station, including cable and satellite for six weeks when the majority of cattle are moved from farms to the market.

Additionally, when a wild-free-ranging deer in Shiawassee County was harvested in December of 2007 and confirmed positive in 2008, all cattle producers within a ten-mile circle of the positive animal had to be reached, quarantined, and informed of the need to test for bovine TB over a six-month period. MDA collaborated with USDA Veterinary and Wildlife Services, the Michigan Department of Community Health (MDCH), the DNR, Michigan Farm Bureau, and MSU Extension to hold Town Hall meetings, reach cattle producers, and test cattle. No bovine TB was found in the cattle herds surrounding the TB positive deer. The DNR also tested a higher percentage of wild free-ranging deer in the area and no additional TB was found.

Canine Brucellosis Communications

Canine brucellosis is a bacterial disease of dogs that causes abortions. It can spread to humans by close contact with secretions from the reproductive tract, such as aborted puppies, urine, or vaginal secretions from infected dogs. Infection usually results when infected tissues or secretions come in contact with broken skin or are accidentally ingested.

The need to reach individuals who may have been exposed to canine brucellosis required one-on-one communications with religious leaders, a letter writing campaign, and communications through the Michigan Veterinary Medical Society. The AID also collaborated with pet shops and feed stores by asking them to post flyers that informed owners of small breed dogs they should be aware of the signs and symptoms of canine brucellosis.

CWD Surveillance Communications

Chronic Wasting Disease is one of a group of diseases called transmissible spongiform encephalopathies (TSEs) or prion diseases that affect deer, elk, and moose. Chronic Wasting Disease is fatal once symptoms appear. No treatment or vaccine is available.

The Michigan departments of Agriculture (MDA) and Natural Resources (DNR) confirmed the state's first case of Chronic Wasting Disease (CWD) in a three-year old white-tailed deer from a privately owned cervid (POC) facility in Kent County on Monday, August 25, 2008. The disease investigation as to where or how CWD was transmitted to this animal was inconclusive.

The state quarantined all POC facilities, prohibiting the movement of all – dead or alive – privately-owned deer, elk, or moose. POC quarantines were systematically lifted as audits confirmed compliance with rules, regulations, and disease surveillance.

Communications to the Commission of Agriculture and interested legislators on the disease surveillance effort were documented in a weekly, bi-weekly, and final monthly updates. Specific audiences such as bait growers/sellers and POC facility owners received targeted communications.

The DNR bait ban, a CWD Fact Sheet, a clarification on POC facility quarantines and releases, and information from MDCH on human health as it relates to CWD and prion diseases were made available to the public at stakeholder meetings and on the Emerging Diseases Website. Michigan State University's Product Center collaborated with MDA by providing an outlet to bait growers on the Market Maker Clearing House.

MDA updated the venison processing guide and developed a presentation for the public that was shown to the Legislature, to the Michigan Commission of Agriculture, at cervid industry meetings, and at Town Hall meetings in Clare, Lake City, Gaylord, Gladwin County, Sandusky, Lapeer County, Bad Axe, Huron County, Ionia High School, Petoskey Fair Grounds, Kent County, Alpena Community College, and Michigan Community College in Harrison.

Pandemic Influenza Coordinating Committee Communications

The Pandemic Influenza Coordinating Committee (PICC) Steering Group consists of a representative from each State Agency and includes Tribal representation. The subcommittees are comprised of individuals representing appropriate departments and stakeholders. The PICC steering group subcommittees report on a quarterly basis and ensure development of a State Pandemic Influenza Response Plan.

The PICC ensures the Governor and senior governmental officials will provide statewide continuity of government in the event of a pandemic. The Michigan Departments of Agriculture and Natural Resources and USDA have an avian influenza response plan, and MDCH has a Pandemic response plan which includes responses to novel strains such as avian influenza.

The PICC Animal Health Sub-Committee is made up of the Avian Influenza Interagency Working Group (AIIWG) which has been in place since November of 2005, and addresses the state efforts on animal disease surveillance and disease eradication processes in the event of an avian influenza outbreak.

In 2008 the AIIWG subcommittees developed: 1) a DVD on Avian Influenza that includes domestic, wild birds, and human implications; 2) employee safety/human health occupational safety protocol for an avian influenza outbreak in poultry or wild waterfowl; and 3) the ability to reach special populations, including backyard poultry producers, the underground cock fighting community, and 4-H children.

Pseudorabies in Transitional Swine Communications

Pseudorabies (PRV), also known as Aujeszky's disease, is a viral disease of swine that causes respiratory disease and reproductive problems, including abortions and stillbirths in breeding swine. Occasionally, death losses in breeding and finishing hogs occur.

MDA confirmed PRV infection in 19 sport swine on a privately owned cervid (POC) facility in Saginaw County on May 6, 2008. Five feral swine, taken near the original Saginaw County index case, also tested positive for PRV.

As a result, a massive communications effort occurred statewide. Outreach with weekly, bi-weekly and monthly reports and updates were distributed to the Michigan Pork Producers, Michigan Farm Bureau, MSU Extension, MSU College of Veterinary Medicine, USDA, National Association of Swine Veterinarians, National Association of Pork Producers, and agriculture media. An updated Pseudorabies Eradication Plan was produced by AID and made available to the public.

Maps with five-mile radius circle testing were distributed to the public so that any individuals (including those with 4-H show hogs) would know to expect PRV testing of their swine, which was paid for by the state. Saleyard hand-outs and signage regarding terminal sales, consumer warnings regarding garbage feeding to swine, and a declaration from the State Veterinarian that all fairs and exhibitions where pigs co-mingle were terminal shows to prevent any potential spread of disease - were all important components of the disease surveillance effort.

Emergency Management – Nancy Barr, DVM • Mike Neaualt, DVM

In order to prevent the spread of animal diseases, AID is involved in drills to assess and improve the state's emergency preparedness. In 2008, there was an avian influenza outbreak exercise to evaluate the level of preparation of emergency personnel. The goal was to determine how the various individuals and agencies involved in an outbreak of avian influenza would respond, what improvements could be made, and how the system functioned. Participant actions were evaluated against current response plans and capabilities for an agricultural incident response, including (1) Critical Resources Logistics and Distribution; (2) Animal Disease Emergency Support; and (3) On-Site Incident Management.

Key events in the drill included:

- The State Veterinarian has issued a quarantine for the infected zone
- Poultry operations within the infected zone were scheduled for sampling and depopulation
- Sampling teams and euthanasia & disposal teams were mobilized
- The Michigan Veterinary Corps was notified of a call-up to assist
- Responders were directed to report to the staging area in Allegan, Michigan, for an incident briefing
- Evaluators observed and critiqued the avian influenza drill. Another drill is planned for 2009.

Equine Programs – Angela Butler, DVM

Eastern Equine Encephalitis (EEE) is caused by a virus that infects mosquito and bird populations, most often in the summer. The virus gradually spills over to horses and humans. Mosquito precautions for horses are recommended and horses should be vaccinated against the disease to protect them throughout the year. EEE, commonly called sleeping sickness in horses, requires a bite from an infected mosquito and cannot be transmitted directly from infected horses to other horses or humans. Tips for preventing mosquito-borne sickness in horses include vaccination, mosquito repellents, stabling horses during prime mosquito exposure hours (dusk and dawn), and eliminating standing water. In 2008, the Michigan Department of Community Health did not report any cases in humans; MDA reported one case in a Calhoun County Horse.

Equine Infectious Anemia (EIA) is an incurable viral disease of horses transmitted by biting flies. There is no vaccine and no treatment. Most animals die after becoming infected, but some appear to recover and become carriers of the virus. Equidae (e.g., horses, ponies, mules, and donkeys) are the only known animals affected by this virus. Once an animal is infected with the EIA, it is infected for life, regardless of the severity of the symptoms. A blood test can determine if animals are infected and testing (Coggin's Test) is required for movement and for shows and events where horses congregate. Animal Industry Division veterinarians follow-up on infected animals and are involved in retesting. Prevention of the spread of the disease is the goal and is accomplished by quarantine and/or euthanasia or slaughter. One case of EIA was reported in Montcalm County in 2008.

Johne's Disease – Vacant

Johne's disease is a chronic, incurable bacterial disease of cattle cause by Mycobacterium paratuberculosis, that results in significant economic loss through decreased production, decreased value of cull cows, and inability to sell breeding stock. The disease is complicated by the fact that cattle are infected at a young age (by exposure to contaminated manure), but do not show clinical signs until years later. The key to preventing Johne's disease from entering a clean herd, or managing the disease once it is established in a herd, is assessing the risk, adopting biosecurity measures that prevent exposure, and wise use of testing strategies. The control of Johne's disease is especially important for individuals selling registered breeding stock.

In 2008, 218 herds were involved in the USDA-Michigan Cooperative Johne's Disease Eradication Program. A total of 180 risk assessments were done on 122 dairy and 58 beef herds. Herds can achieve increasing levels of confidence that their cattle are not infected with the bacteria that causes Johne's disease by annual testing of cattle. Herds with infected animals are considered "management level", herds without evidence of infection are called "status level herds" (test negative herds), with status level 4 being the highest achievable status.

Michigan herds enrolled in the Johne's Eradication Program

Category	Total # enrolled	Dairy herds	Beef herds
Management	142	102	40
Status level 1	60	22	38
Status level 2	12	5	7
Status level 3	1	0	1
Status level 4	3	1	2

Licensing Program – Field Veterinarians

AID licenses and regulates a variety of animal industries including livestock dealers, truckers, sales and auction markets, renderers (carcass dealers), riding stables, pet shops, animal control/ protection shelters, and commercial fish hatcheries and aquaculture facilities.

The table lists the number of licenses issued in 2008, total number of licensees, and those undergoing prelicensing inspection (facilities wishing to obtain license).

License	# issued 2008	Total licensees	Prelicensing inspection*
Riding stables	4	89	9
Pet shops	32	255	31
Animal Shelters	12	186	17
Aquaculture	2	53	3
Livestock dealers			2
Auction markets	0	16	
Collection points/ buying stations	0	9	
Horse auction markets	2	4	
Dealers/brokers/agents	14	218	
Disposal/transportation of dead animals			5
Rendering plants	0	7	
Transfer stations	0	3	
Vehicles	1	17	
Animal feed plants	0	2	
Dead animal dealers	0	9	9

AID investigates complaints of licensed facilities. The total number of valid complaints received in 2008 was 211 - 88 animal shelter complaints, 113 pet shop complaints, and 4 animal welfare complaints (enforcement requesting MDA assistance). Other complaints were as follows: disposal of dead animals, 1; livestock dealer, 1; riding stable, 4; and aquaculture, 0.

One hundred facilities received visits for other reasons, including recheck visit or failure to renew their license. These included animal shelters (28), pet shops (50), aquaculture (3), disposal of transportation of dead animals (2), livestock dealers (4), and riding stables (13).

In addition, MDA annually determines the number of Psittacosis positive animals (3) and the number of rabid animals (79). MDA also conducted two training ride-alongs for animal control officers. CDC issued 47 prevention and control quarantines for animals imported into Michigan from other countries, six of which were visited by MDA in 2008.

Rabies Program – Michelle Finateri, DVM

Rabies is a viral disease that can infect all mammals. Rabies infection is most often the result of a bite from an infected animal and is considered universally fatal in people. Vaccination of domestic animals is used to create a barrier between wildlife and humans. In 2008, there were 79 rabies positive animals in the state. This is in contrast to 2007 when 210 animals tested positive for rabies.

Most people are not routinely vaccinated for rabies. Exposure to a rabid animal results in a risk assessment by a physician to determine if the individual should receive the series of rabies vaccinations (rabies post-exposure prophylaxis). In 2008, 95 people were exposed to rabid animals and received rabies post-exposure prophylaxis.

Domestic animals exposed to a rabid animal are evaluated to determine the risk of exposure and the fate of the animal. Most dogs and cats vaccinated against rabies are re-vaccinated. Unvaccinated dogs and cats may be vaccinated and quarantined or euthanized. In 2008, there were 42 vaccinated dogs and 19 vaccinated cats exposed to a rabid animal. Eight unvaccinated dogs and 14 unvaccinated cats were evaluated, vaccinated, and quarantined. Eighteen unvaccinated animals exposed to a rabid animal were euthanized.

Rabies positive animals	2008	2007
Bats	70	199
Skunk	6	5
Fox	2	2
Cat	1	2
Dog	0	1
Horse	0	1
Total	79	210

Scrapie Program – Mark Remick, DVM

In March 2008, MDA officials announced that a three-year-old female Nubian goat from Ottawa County tested positive for scrapie. Scrapie is a transmissible spongiform encephalopathy, which can be transmitted between sheep and goats. Scrapie is a fatal, contagious disease affecting the central nervous system of sheep and goats. This discovery means Michigan goats no longer meet the requirements to be classified as “low-risk” or “low-risk commercial” by USDA.

The goat was born in 2004 and sold in July of 2007. There was no known contact between this goat and any sheep, indicating that goat-to-goat transmission most likely occurred.

The positive Scrapie result was reported on December 12, 2007 by the APHIS National Veterinary Services Laboratories. Scrapie is not known to pose a human health risk, but it is a reportable animal disease and its eradication is only possible through testing, good record keeping, and animal identification.

Title 9 of the U.S. Code of Federal Regulations, part 79.3 stipulates that official individual identification is required for all sexually intact goats, regardless of age, for movement in interstate commerce, unless the movement is in slaughter channels, or for grazing or similar purposes without change of ownership. This discovery underscores the need for animal identification and premises registration. This is only the second scrapie positive goat identified in Michigan since 2000.

The small ruminant (sheep and goats) industry has a significant impact on Michigan’s agricultural economy. In 2006, gross income from Michigan’s sheep and goat industries was $3.5 million. One of the major impacts to the industry with the loss of Michigan’s low-risk and low-risk-commercial status is producers are required to obtain a certificate of veterinary inspection or a health certificate when moving goats interstate.

Swine Program – Angela Butler, DVM

Pseudorabies

Pseudorabies, also known as Aujeszky’s disease or PRV, is a viral disease of swine that causes respiratory disease and reproductive problems. Although death does occasionally occur in breeding and finishing hogs, abortion and stillbirth are common. Michigan’s commercial hog industry was declared pseudorabies free in 2000, after a 10-year eradication effort. Pseudorabies is a threat to the commercial hog industry.

There are three categories of swine in Michigan that may affect Michigan's PRV-free status (which is a federal/international designation) in different ways. Commercial swine are those domesticated pigs raised in bio-secure housing units, raised for the purposes of meat, and consumed as pork. If PRV is found in commercial swine, Michigan's status is affected. Transitional swine are Razorback/Russian/Eurasian wild boar type swine, often crossbred with commercial (domestic swine) and are bred or used for shooting on large fenced game ranches. These swine can be dangerous and can easily become feral. Pasture raised and 4-H/backyard swine are included in this category because they may come into contact with feral swine. PRV in transitional swine does not affect the status of a state (until the virus is transmitted to commercial swine). Because the risk of transmission to commercial swine is high, swine in outdoor facilities, game ranches, and/or pasture raised swine will be destroyed if they are PRV positive. Feral swine are defined in Michigan as any pig free-ranging outside an enclosure. PRV in feral swine does not affect the status of a state (until the virus is transmitted by feral swine to commercial swine). In most Michigan counties, feral swine may be shot through-out the year, as long as a shooter has a valid Michigan hunting license.

On May 6, 2008, MDA confirmed PRV infection in 19 individual sport swine on one privately owned shooting facility in Saginaw County. An epidemiological investigation confirmed three additional transitional swine herds on three separate locations that were associated with the first infected herd. An incident command unit was set up to respond to the disease outbreak. The incident command unit identified, quarantined, tested, and depopulated the four PRV positive transitional swine herds. All four PRV positive transitional swine herds were destroyed and MDA confirmed all four facilities were depopulated by USDA Wildlife Services on September 23, 2008.

MDA will continue to conduct surveillance testing and if PRV is detected on a shooting facility, a full disease investigation will be conducted, the facility will be depopulated, and trace testing will occur. Testing of 153 premises, either inside the four epidemiological circle areas in Cheboygan, Gladwin, and Saginaw counties, or associated with trace testing from the original PRV positive shooter swine facility in Saginaw County, is complete. No additional PRV positive facilities associated with this trace investigation have been identified. There are 53 Michigan ranches with swine, as of October 24, 2008, 37 remain under quarantine. To date, 16 quarantines have been lifted. All ranches are required to submit blood samples for disease testing.

Feral swine

On November 18, 2008, MDA and DNR urged hunters to shoot feral swine and reminded them to report any sightings. Feral swine are defined as free-ranging populations of wild pigs, not owned by any person. During the 2007-2008 hunting season, 65 feral swine were taken by Michigan hunters. Free ranging swine displace wildlife and severely impact Michigan's natural resources. By shooting feral swine, hunters are preserving Michigan's natural beauty for future generations to enjoy. Free ranging swine, both domestic and exotic, can transmit disease such as pseudorabies, as well as cause extensive crop damage. Hunters can help prevent disease transmission by shooting swine running at large.

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Bovine TB Wildlife Risk Mitigation	Rick Smith, DVM
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