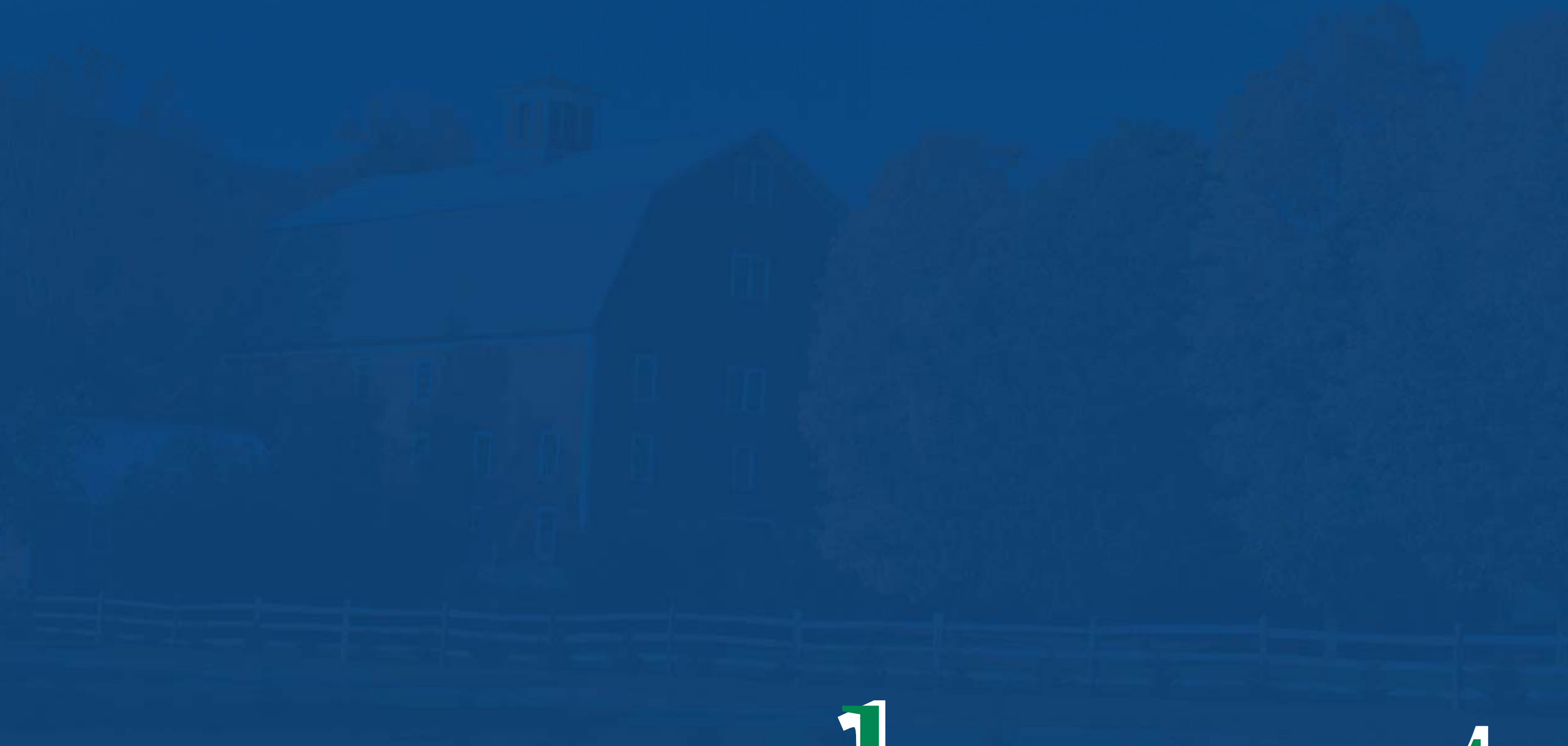

Minnesota Board of Animal Health

Safeguarding Animal Health

annual report 2008

"...working together to safeguard animal health."

July 1, 2008

Dear Friends of Minnesota Agriculture:

For more than a century, the Minnesota Board of Animal Health has been safeguarding one of Minnesota's most important resources: animal agriculture. While the obstacles we face may change from year to year, our goal always remains the same - to work alongside producers and veterinarians in controlling and eradicating disease from Minnesota's domestic animal population.

The past year brought numerous challenges as the Board expanded its workforce and developed a plan and application for Split State Status. In addition to facilitating state, federal, and industry partnerships as we work to eradicate bovine tuberculosis (TB) from northwest Minnesota.

We have been busy this year and I am proud to say that with the help of private practitioners and livestock producers, we have faced each challenge head on. The upcoming year will provide an abundance of work with limited resources, but we will succeed. As the State Veterinarian, I look forward to continuing our important work together.

I would like to take this opportunity to say thank you to our numerous partners. We have been fortunate to enjoy the support of so many producers, industry leaders, and veterinarians across the state of Minnesota. It is thanks to their support that we continue to improve the quality of Minnesota livestock every year and maintain our status as a national leader in animal agriculture.

I take great pleasure in sharing with you the 2008 Minnesota Board of Animal Health Annual Report. The information contained within is from July 1, 2007 to June 30, 2008. For more information on our disease programs, I encourage you to explore the Board's website at www.bah.state.mn.us or the State's bovine TB website at www.mntbfree.com.

Sincerely,

Dr. William Hartmann
State Veterinarian

Board Members

Dr. John Whitten, President.....Alexandria
Dr. Holly Neaton, Vice-President....Watertown
Mahesh Kumar.....St. Cloud
Paul FitzSimmons.....Good Thunder
Steven Brake.....Wilmont

Board Meetings

December 12, 2007
February 13, 2008
April 23, 2008
September 17, 2008

The Board minutes are recorded in the Official Minute Book of the Board of Animal Health and are kept on file at the Board's office.

Annual Report

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

To receive additional copies of this publication, please send a request to: Malissa Fritz, Communication Director, malissa.fritz@bah.state.mn.us

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cattle health

Anthrax

Anthrax is a bacteria found in the soil. Anthrax can lie dormant for years in soil and infect animals while grazing on pasture or eating stored feed containing the spores. In the last 100 years, more than 250 farms in Minnesota have been infected with anthrax. Animals grazing in areas previously infected with the bacteria are more likely to become infected. It does not spread from animal to animal.

In April 2008, two cows in Becker County died after being exposed to anthrax. The remaining cows in the herd were quarantined and vaccinated against the bacteria.

Cattle producers in Minnesota are advised to vaccinate their animals against anthrax. "By spending a couple of dollars per animal on the vaccine each year, producers can ensure the survival of their livelihood," State Veterinarian Dr. Bill Hartmann said.

Johne's Disease (JD)

Minnesota's has a voluntary Johne's disease (JD) program. With about 2,000 cattle herds enrolled, it is the largest program of its kind in the nation and is used as a model program for other states. The program began in 1998 to help producers find and control JD in their cattle herds. JD is a chronic bacterial disease that can cause significant economic losses. In the last twelve months, 70,710 Minnesota cows were tested for JD; 66,527 tested negative and 4,042 tested positive.

This year, the Board teamed up with the Minnesota Dairy Herd Improvement Association (DHIA) to implement a new JD test. Milk samples collected by DHIA can now be used to test for JD. Each test costs $6, saving the producers money and time by eliminating the need to collect other samples for testing. DHIA tested 24,501 milk samples and found 1,246 samples positive for JD.

The JD program is still in full swing; about 25 percent of enrolled herds now qualify for negative herd status. All herds in the program are visited biannually by a veterinarian trained to evaluate a herd for JD. These vets help producers create a management plan to reduce disease in their herds.

Federal funding for the national JD program has decreased substantially in recent years. With only state resources, the Board has had to decrease the amount of testing it will cover. As a result, individual producers now shoulder a majority of the financial burden to test cattle.

"...bovine TB is a top priority..."

Bovine Tuberculosis (TB)

For the last three years, controlling bovine tuberculosis (TB) has been a top priority at the Board. The cattle industry in Minnesota generates $2.6 billion and the effects of TB have been felt throughout the state. In April, 2008, USDA officially downgraded Minnesota's TB status to Modified Accredited Advanced. With this downgrade, came increased TB testing requirements and movement regulations effective statewide. Governor Tim Pawlenty signed legislation in May that gave the Board increased authority and funding to eradicate TB from Minnesota.

The Board is applying to U.S. Department of Agriculture (USDA) for Split State Status- a move which would separate Minnesota into two TB zones. The majority of the state would be classified as Modified Accredited Advanced (MAA), while 2,600 square miles in northwestern Minnesota where TB has been found, would be Modified Accredited (MA). Splitting the state into separate zones would relieve most Minnesota producers from the increased testing burden and allow the Board to focus its resources in the MA Zone, where they are needed most. Minnesota will sign a Memorandum of Understanding detailing the conditions of the approval of Split State Status.

Once Split State Status is approved, Minnesota will have three separate areas related to bovine TB eradication. Maps of the zones are in the appendix. The areas are:

- Management Zone is located in the MA Zone. This area encompasses where all TB-positive deer have been found.
- The MA Zone, also known as the Split State Zone, is a small area in northwestern Minnesota that is about 2,600 square miles.
- MAA Zone encompasses the majority of the state and has the fewest movement and testing requirements.

In order to reduce the likelihood of disease transmission, the Board implemented a buyout program to remove cattle from the Management Zone. Forty-five herd owners are taking part in the herd buyout. This will remove about 4,000 head of cattle from the area. All buyout cattle must be removed by January 31, 2009. The remaining 28 farms will need to install 74,000 linear feet of deer-exclusion fencing to protect cattle herds and feed from deer.

Cattle producers in the MA Zone must test their cattle for TB annually. When cattle leave the farm the herd test must be up to date and the animals moving must have had a TB test within 60 days. To regulate this, the Board will be issuing Animal Movement Certificates that must accompany any cattle moving out of the proposed MA Zone.

By implementing these regulations, we will be able to attain Split State Status. Minnesota is expecting to be granted Split State Status in fall, 2008. Gaining Split State Status will be a milestone for the State; however it will not signify the end of the eradication plan. The Board will work tirelessly until TB is eliminated from Minnesota.

cervidae health

Chronic Wasting Disease (CWD)

In Minnesota, all farmed cervidae producers must register with the Board of Animal Health. Cervidae include all deer, moose, caribou, reindeer and muntjac. Throughout the state, there are 20,000 cervids on 657 farmed cervidae operations.

Cervidae producers work with the State to keep their animals safe and healthy. All herds in Minnesota are enrolled in a Chronic Wasting Disease (CWD) surveillance program. CWD is a fatal brain and nervous system disease found in cervidae that is highly contagious. An infected animal loses significant body weight and has neurological problems. Any cervidae 16 months or older must be tested for CWD if it dies or is slaughtered. In the last 12 months, 2,022 animals were tested for CWD. All were negative. The last case of CWD in Minnesota was found in March, 2006.

In addition to CWD testing, all cervidae must have official identification and report any transport of the animals. The fencing around a cervidae farm must be at least 8 feet to keep farmed cervidae in and wild deer out. Every cervidae herd is inspected annually by the Board.

"producers work together with the State..."

horse health

"...producers are protecting their horses..."

West Nile Virus (WNV)

West Nile Virus (WNV) is an endemic in Minnesota. This year, 17 horses tested positive for WNV. The disease is spread via mosquitoes and causes lethargy, convulsions, paralysis and coma in horses. It is also possible for humans to contract WNV from mosquitoes.

The Board recommends that owners vaccinate their horses against WNV and take other precautions to keep their animals healthy. By changing the water in drinking troughs often, hanging mosquito netting, and eliminating mosquito breeding areas can reduce their horse's risk of getting WNV.

The vaccine and these management techniques have proven extremely effective in reducing the number of horses infected with WNV- a figure that peaked in 2002, when 992 horses tested positive for WNV. Horse owners should vaccinate their horses each year in the spring to reduce the risk during peak mosquito season, which usually spans from mid-July through mid-September. Based on what has been documented in years past, very few horses that were correctly vaccinated developed the disease. Due to the drop in positive horses cases, it seems as though many producers are protecting their horses from WNV.

Equine Infectious Anemia (EIA)

More than 44,000 horses were tested for Equine Infections Anemia (EIA) in Minnesota in the last twelve months, all were negative. EIA is a viral disease that usually affects horses and is similar to the virus that causes human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) in people. EIA causes fever, depression and weight loss in horses and there is no vaccine against the disease. Horses in close quarters can become infected by horse and deer flies.

The Board quarantines any horse exposed to EIA for a minimum of 45 days to ensure the animal will not be a reservoir for the disease. Once a horse is infected, it is infected for life. EIA is fatal in about 30 to 70 percent of cases. Horses that test positive in Minnesota are placed in permanent isolation. There are currently nine infected horses in the state.

poultry health

Avian Pneumovirus

Avian Pneumovirus (APV) is a viral respiratory disease of turkeys, which has been an issue for the Minnesota turkey industry since identified in 1998. Minnesota is one of several Midwestern states that have detected APV. The economic significance of APV led the Board, the turkey industry, and the University of Minnesota to research control and eradication strategies, which included a three year U.S. Department of Agriculture (USDA) funded field project.

As a result of these efforts, a processing plant surveillance program was established to identify positive APV turkey flocks, track the disease, and implement control measures. The percentage of positive flocks over 10 years has dropped substantially which suggests that Minnesota is moving quickly toward disease eradication. From 2003 to 2005, more than 50 percent of Minnesota turkey flocks were APV-positive. This year less than two percent were positive.

Mycoplasma

Mycoplasma is a contagious respiratory disease that can cause significant economic loss in poultry. There are three types of Mycoplasma that require routine testing; Mycoplasma synoviae (MS), Mycoplasma gallisepticum (MG), and Mycoplasma meleangridis. This year, the Minnesota Poultry Testing Laboratory tested144,016 samples. All tests were negative.

Minnesota was recognized and certified by the USDA as the first state to eliminate MS and MG from turkey and meat-type chicken breeder flocks in 2003. To maintain this status, breeder flocks and hatcheries must complete annual testing.

"...moving quickly toward disease eradication..."

"first in the nation..."

Avian Influenza

Minnesota ranks first in the U.S. in turkey production, ninth in egg layer production, and eighteenth in chicken production.

A majority of Minnesota's poultry production occurs in the same area where wild water fowl nest, raise their young and gather for the fall migration. The result of this contact has meant occasional low pathogenic avian influenza (AI) findings. The discontinuation of range turkey production in the mid 1990's has significantly lowered the number of AI introductions. In spite of the numerous low path introductions, highly pathogenic avian influenza (HPAI) has never emerged from Minnesota poultry. To date, every introduction of AI in Minnesota has been successfully and quickly eliminated.

The reason for this success is the cooperative disease control program implemented by the poultry industry, the Board, and the University of Minnesota. In 1986, Minnesota was among the first states to work with turkey growers to establish a program to identify infected flocks. The State has maintained its status as a national leader in disease response. Recent enhancements to this program include expanded surveillance of chickens, upland gamebird and live bird markets. A Poultry Emergency Management Committee serves in an advisory role as part of the Minnesota Response Plan.

In the last fiscal year, the Minnesota Poultry Testing Laboratory tested 64,672 samples from 3,902 flocks for AI. Of those tested, 20 flocks were positive for low pathogenic AI (LPAI). Due to quick response by the Board and the industry, the disease did not spread from any of these flocks.

Salmonella

Salmonella is a type of bacteria that is carried in the intestines of animals and poultry and can be shed into the environment. People typically become infected after eating contaminated foods or from contact with animals or their environments. Poultry is a recognized source of Salmonella responsible for a variety of diseases in humans. Although Salmonella cases in people are often associated with poultry, salmonella is a food safety concern with products from all animal sources.

The Board has provided a voluntary Salmonella typhimurium flock certification program for turkey breeder flocks and hatcheries since 1971 and a mandatory Salmonella enteritids program for egg-type chicken breeder flocks and hatcheries since the 1990's. This year, the Minnesota Poultry Testing Laboratory tested more than 40,000 samples for salmonella and expanded surveillance in turkey breeder flocks to include additional environmental testing. The findings will assist the industry in developing and implementing control measures.

Scrapie

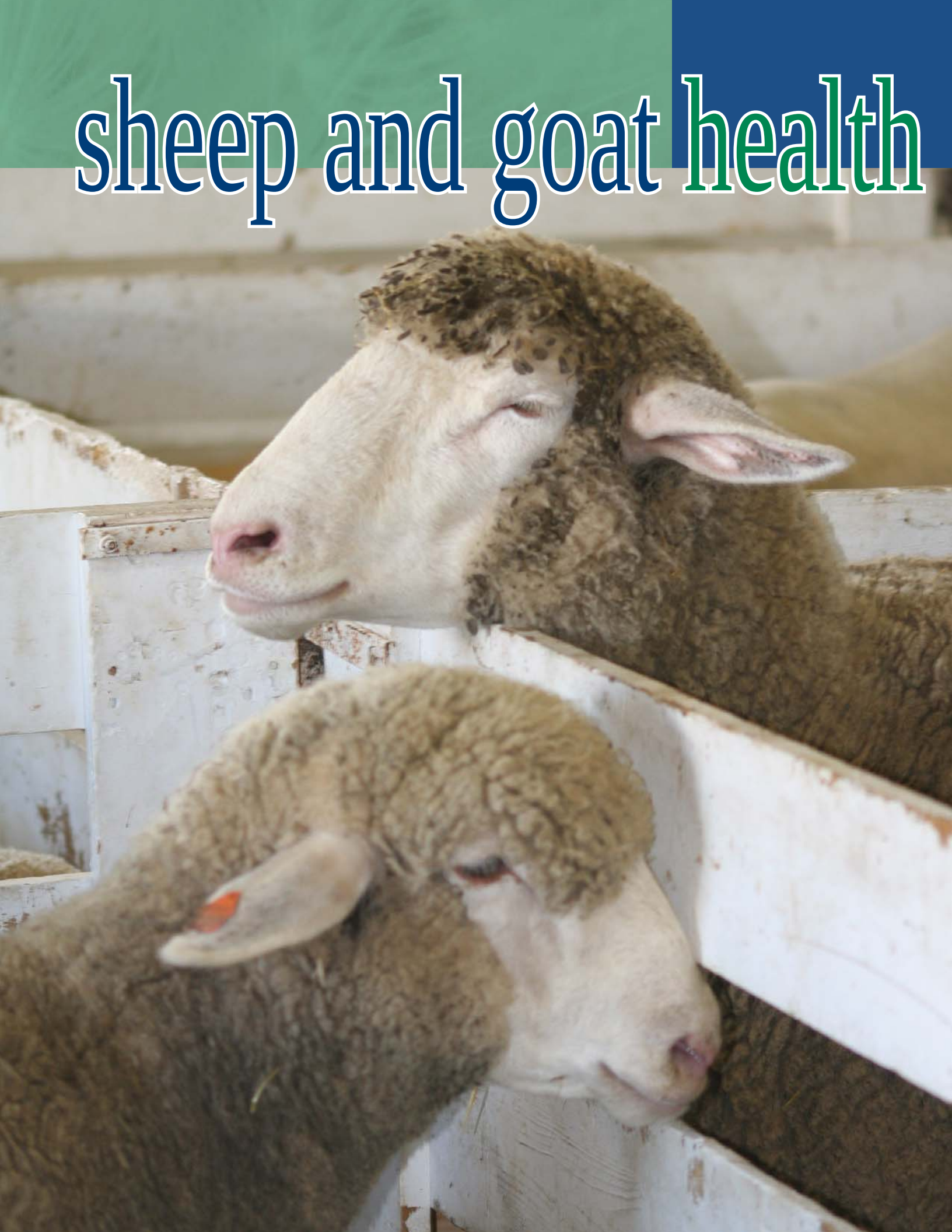
Minnesota participates in a federally funded Scrapie Eradication Program that works to identify infected animals through slaughter surveillance. Once an infected animal is found it is traced to the flock of origin. The flock is quarantined and a flock clean-up plan developed. Scrapie is a fatal degenerative disease found in sheep and goats. There are 4,644 goat herds and sheep flocks registered with the Board.

This year, 50 animals from six flocks were found infected with scrapie. One flock was heavily infected and had 37 positive animals. These flocks were quarantined and a flock clean-up plan was developed. The flocks undergo genetic testing, also referred to as DNA testing or genotyping to determine susceptibility to scrapie. Susceptible animals are euthanized and tested for scrapie. More than 2,670 animals had genotype testing done during scrapie investigations in the past year. The premises were then cleaned and disinfected. The flocks were placed on a five year monitoring plan.

The Board will continue to work with federal partners and the producers of Minnesota to eliminate this disease by 2010.

"...eliminate this disease by 2010..."

sheep and goat health



Pseudorabies

Pseudorabies was effectively eradicated from Minnesota swine herds in October, 2002, and is no longer found in domestic swine in the U.S. Years of hard work and dedication have proven successful in eliminating this disease from domestic pigs. The Board administers a Pseudorabies surveillance program and is prepared if the disease should reappear. Pseudorabies is still common in feral swine. The disease is caused by a herpes virus and affects an animal's nervous and respiratory systems. More than 84,300 swine were tested for Pseudorabies this year. Four animals tested positive, but after further investigation the tests were deemed false positives.

The disease is not a threat to humans, but is almost always fatal in other animals. Pseudorabies does not infect people or horses and is not a human health or food safety concern.

Swine Brucellosis

Brucellosis is a bacterial disease that causes abortions in sows and infertility in boars. Although this disease is not fatal, it decreases profits for swine producers. Swine brucellosis was eradicated from Minnesota swine herds in 1975. The Board maintains a brucellosis surveillance program to ensure there are no recurrences of the disease as it has a high prevalence in feral swine nationwide.

During the last year, almost 82,600 sows and boars were tested for brucellosis at slaughter plants. Nineteen of the animals tested positive and were traced to their farm of origin. The herds were evaluated and none were high risk, so no further testing was needed.

"Years of hard work and dedication..."

swine health

Garbage Feeding

The Board requires a permit to feed garbage to livestock in Minnesota. The garbage usually comes from restaurants, mall food courts, school cafeterias, and hotels. Nine Minnesota producers have obtained a permit from the Board to feed their swine garbage. Garbage feeding is regulated nationwide. The Foot and Mouth Disease virus can remain viable in meat scraps for long periods of time necessitating that all garbage be cooked to 212 degrees Fahrenheit for 30 minutes before it is fed to animals.

Sixteen producers have 'exempt materials' permits to feed their animals garbage that does not contain meat- such as discarded items from a bakery. This garbage does not have to be cooked. Garbage feeding is an eco-friendly, cost-effective way to recycle unused food waste.

Kennel, Dealer, and Institution Licenses

With a pet in more than 60 percent of American households, dogs and cats are an important part of our daily lives. If a person finds they can no longer keep their companion animal, it is often sent to a kennel. In Minnesota, a kennel is defined as a licensed facility that keeps impounded or abandoned animals. The Board routinely inspects animal kennels statewide to ensure the facilities meet basic animal care standards, such as good animal health and cleanliness. This year, five new kennels were licensed and 62 routine inspections were performed. In all, there are 120 kennels in Minnesota, two research institutions, and one dealer who takes in unwanted animals.

The Board also investigates public complaints about kennels. Six kennels were inspected this year after complaints were made to the Board. The Board enforces its regulations to ensure that man's best friend gets adequate care while in a state-inspected facility.

Rabies

Rabies is a fatal disease endemic in Minnesota's skunk and bat populations. Infected wild animals can expose people and domestic animals to the rabies virus. The Board of Animal Health and the Department of Health work cooperatively to investigate rabies positive cases where there is domestic animal or people exposure. During the past year, 67 animals were euthanized and 37 quarantined after exposure to a rabid animal. The University of Minnesota Veterinary Diagnostic Laboratory tested 2,536 animals for rabies, with 55 testing positive. Most of the positive animals were skunks and bats.

The Board works hand in hand with the Minnesota Department of Health to educate people about the risk of rabies. Last year, 48 people were given rabies prophylaxis after potential exposure.

other programs

Livestock Auction Markets

The Board regulates livestock auction markets to track animal movements and enforce good biosecurity practices. In Minnesota, there are 22 auction markets that operate under the authority of the Board. Auction markets maintain necessary records so animals can be traced through the sale, if necessary. The Board also oversaw 14 annual sales and 55 special permit sales in the state this year.

Each auction market or sale must have an on-site accredited veterinarian to inspect animals that are for sale. State regulatory officials inspect each market on a regular basis. This year, 240 inspections were conducted.

Two new compliance officers were hired this year to supervise cattle moving from the Modified Accredited Zone. The officers at each sale review movement certificates, testing records, animal identification, and enforce regulations. The Board also implemented a new policy in Minnesota markets to help track slaughter animals. All slaughter buyers must sign an affidavit stating animals will be slaughtered within five business days and identify the location of processing.

Animal Identification

The Board participates in the National Animal Identification System (NAIS). The goal of NAIS is to identify every livestock premise in the U.S. with uniform identification for premises and individual animals. This will help the Board and federal animal health officials track animals in a disease emergency.

Producer participation is voluntary for this program; however 12,248 premises numbers have been issued to Minnesota producers. The Board also has a similar program for Minnesota farms with 42,682 premises on record.

"... effectively and efficiently notify Minnesota producers and stakeholders quickly..."

other programs continued

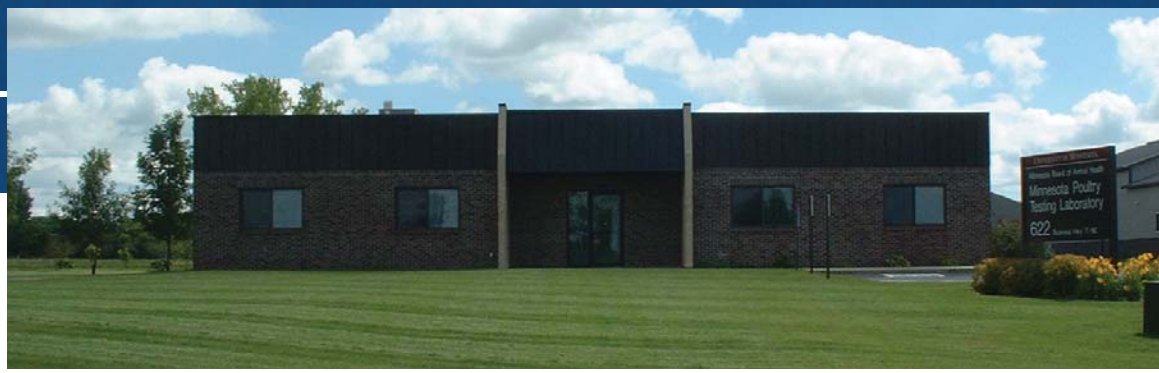
Communications

Upon the discovery of a fourth bovine tuberculosis (TB) infected herd, the state began preparing for a status downgrade. It became evident that Minnesota producers needed frequent updates on the TB investigation and current movement and testing requirements. Communications staff began publishing a bi-monthly TB newsletter, containing updates on the State's TB eradication efforts and alerting producers of upcoming informational meetings. An Incident Command Structure was established, including a Joint Information Center. Board Communication Director, Malissa Fritz, was appointed as lead Public Information Officer to coordinate TB related outreach activities and messages. A website was created to be Minnesota's "one-stop shop" for information on bovine TB. A series of meetings explaining the impending downgrade were hosted in cooperation with other agencies, reaching over 4,000 producers statewide. Weekly radio interviews were established and the board's TB Hotline received over 800 phone calls in only one month.

When Minnesota's TB status was downgraded in April 2008, communications staff went to work by sending 3,600 emails, faxing 1,200 vet clinics and stakeholders, and personally calling 80 media and key stakeholders. Over 40,000 letters were sent to Minnesota cattle producers, and numerous public service announcements were distributed to media outlets throughout the state.

Communications staff developed and executed a plan to effectively and efficiently notify Minnesota producers and stakeholders quickly of the state's TB status downgrade, allowing for a smoother transition during a difficult time.

official laboratories



Poultry Testing Laboratory

Since the 1960s, the Minnesota Poultry Testing Laboratory (MPTL) has served as the official disease testing lab of Minnesota's poultry industry. Over the years, as the poultry industry has grown, so has the MPTL. And with a long-awaited and much-needed renovation project now complete, it is sure to be another milestone year for the MPTL.

Located in the heart of poultry-producing Kandiyohi County, the MPTL is a cooperative venture of the Board and the University of Minnesota Veterinary Diagnostic Laboratory (VDL). The MPTL manages surveillance programs, tracks disease trends and develops disease prevention and food safety strategies. The MPTL's programs have detected harmful diseases that could have severely impacted the poultry industry.

Most testing at MPTL is conducted under the guidelines of the National Poultry Improvement Plan (NPIP), a state-federal-industry partnership program designed to prevent and control disease across all segments of the poultry industry. The MPTL is one of only two laboratories in the state authorized to test samples under NPIP guidelines. The program certifies states, flocks, hatcheries, and dealers that meet specific disease control standards so that customers can be certain that they are buying poultry that has tested disease-free or has been monitored for particular diseases. NPIP participation allows producers greater ease in moving hatching eggs and live birds intrastate, interstate, or internationally.

The MPTL plays an integral role in keeping Minnesota poultry and poultry products wholesome and safe. Testing for diseases such as AI and salmonella has helped the Minnesota poultry industry to become the national leader in turkey production as well as a top state for the production of broiler chickens, eggs, and upland gamebirds such as pheasant, partridge, and quail. The MPTL tested nearly 280,000 poultry samples in the past year, collected by certified testing agents from hatcheries and flocks across Minnesota.

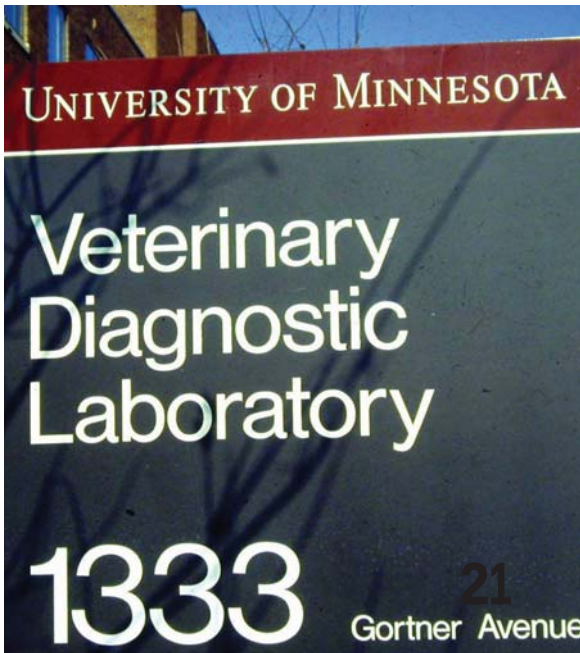
This summer, the MPTL prepared for an American Association of Veterinary Laboratory Diagnosticians (AAVLD) accreditation audit. The preparation included standardized operating procedures, staff training, and the introduction of a new workflow management program to streamline corrective actions within the laboratory.

University of Minnesota Veterinary Diagnostic Laboratory

The University of Minnesota Veterinary Diagnostic Laboratory (VDL) is the official lab of the Board of Animal Health. It is accredited by the American Association of Veterinary Laboratory Diagnosticians. During the last twelve months, the VDL conducted 1.6 million tests which is a 6 percent increase from last year. Increased surveillance for Avian Influenza accounts for some of this increase.

Recently a biosafety level 3 necropsy facility was added on to the VDL. The new lab will be a safe area for VDL employess to work with high-risk pathogens, and will be used in the event of a highly-pathogenic Avian Influenza outbreak. The addition was completed in January, 2008.

The VDL provides valable services to veterinarians and livestock and poultry producers statewide. The VDL works to protect both animal and human health by detecting and monitoring for animal diseases.



appendix

"working together to safeguard domestic animal health in Minnesota..."

Chart 1.1
Imports & Exports

Type of Animal	Imported	Exported
Cattle	366,624	210,762
Chickens - Broiler/Layer	1,870,977	24,465,906
Farmed Cervidae (DeerElk)	205	1,465
Goats	3,392	4,520
Horses	71,890	24,551
Poultry - Non Commercial	1,220,093	260,771
Sheep	25,130	12,164
Swine - Breeding	102,892	174,390
Swine - Feeding	5,837,191	1,792,891
Turkeys - Commercial	7,266,236	29,524,822

Chart 1.2
Minnesota Poultry Testing Laboratory Statistics

Program	Tested	Positive
Avian Influenza	64,672	20
Avian Pneumovirus	23,830	37
Mycoplasma Program (MG)	31,761	0
Mycoplasma Program (MM)	48,617	0
Mycoplasma Program (MS)	63,638	0
Salmonella Enteritidis	1,500	0
Salmonella Pullorum-typhoid	16,802	0
Salmonella Sanitation Monitored (Environment and Pre-Placement)	2,513	682
Salmonella Sanitation Monitored (Hatchery Debris)	3,309	601
Salmonella Typhmurium	36,495	1

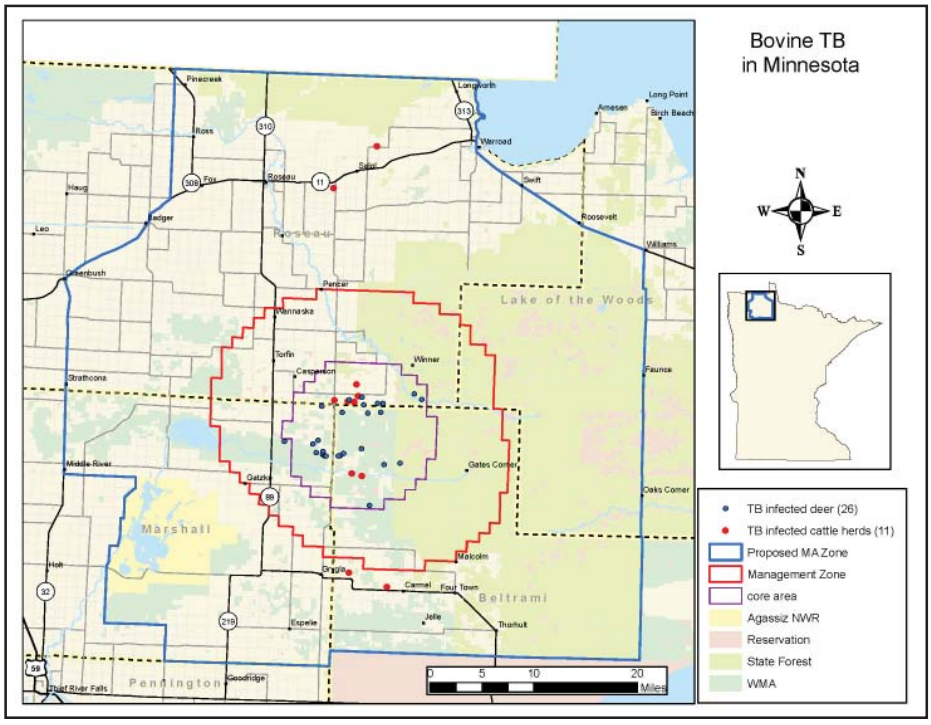
Chart 1.3
Poultry Hatcheries, Dealers, and Agents

Item or Employee	Number
Poultry Dealer Permits*	199
Hatchery and Independent Flock Owner Permits*	108
New Authorized Testing Agents**	46
Authorized Testing Agents**	492
District Veterinarian Field Instructions	21

Poultry Regulations*
The Board oversees and issues permits to poultry hatcheries, dealers and flock owners. The regulatory system works to prevent poultry diseases and certify Minnesota poultry businesses for interstate and international commerce, in addition to protecting public health.

Authorized Poultry Testing Agents**
The Board trains and authorizes individuals to collect samples and conduct field testing for the Board's regulatory poultry programs.

Map 1.1
Bovine Tuberculosis Zones in Minnesota



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