

# State of Minnesota



## Board of Animal Health

### Annual Report

July 1, 2001—June 30, 2002

# **Annual Report**

**November 1, 2002**

State of Minnesota  
Board of Animal Health  
Agriculture Building  
90 West Plato Boulevard  
St. Paul, MN 55107

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

William L. Hartmann DVM, MS  
Executive Director

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## Board Members

Ms. Sharon Baker, President Cyrus

Mr. Todd Searles, Vice President Spring Valley

Dr. Mahesh Kumar St. Cloud

Dr. John Whitten.....Alexandria

Dr. Darrell Zehrer Rogers

## Board Meetings

Quarterly Meeting September 21, 2001

Quarterly Meeting December 14, 2001

Quarterly Meeting February 12, 2002

Quarterly Meeting April 19, 2002

The complete minutes of all of the above meetings are recorded in the "Official Minute Books of the Minnesota Board of Animal Health" and are on file in the office of the Board, 119 Agriculture Building, 90 West Plato Boulevard, St. Paul, MN 55107.

## Staff

Executive Director Dr. William L. Hartmann

Assistant Director Dr. Keith Friendshuh

Administrative Assistant Sandra Ives

Administrative Assistant Sandy Hinrichs

Assistant Director Dr. Kristine R. Petrini

Administrative Assistant Melissa Petersen

Administrative Assistant Helen Woodford

Administrative Assistant Lindsey Aipperspach

Assistant Director Dr. Paul L. Anderson  
Administrative Assistant Kimberly Blackford  
Administrative Assistant Ginny Kasper  
Administrative Assistant Janice Schmidt

Willmar Poultry Testing Laboratory Director.....Dr. Dale Lauer

Administration Manager Ms. Barbara Troyer  
Accounting Officer Rita Hatch  
Administrative Assistant .....Marie Marty

Brucellosis Laboratory Manager.....Robert Tiller

Information Technology Specialist.....Dave Wiklund

Emergency Response Coordinator.....Dr. Dale Neirby

#### District Veterinarians

Galen Adkins, DVM Pine River  
Terry Boldingh, DVM Breckenridge  
Arnold Jostock, DVM Dawson  
Brad Peterson, DVM Owatonna  
L. Kern Schwartz, DVM Worthington  
Greg Suskovic, DVM North Mankato

#### Agriculture Regulatory Specialists

Carl Denkinger Faribault  
Glenn Korman Porter  
Don Myren Pierz

## Minnesota's Johne's Disease Control Program

Minnesota's Johne's Disease Program started in 1998 in an effort to assist producers in identifying and controlling Johne's disease in their herds. This program includes the following elements:

**Education:** The Board, in cooperation with University of Minnesota, College of Veterinary Medicine and Extension Service, helps increase awareness of Johne's disease throughout the State. Current information is disseminated to veterinarians and farmers through meetings, brochures, publications, letters, and a website. Educational efforts for FY2002 in Minnesota included the following:

- 5 Informational meetings for veterinarians held throughout Minnesota
- 2 Presentations on Johne's Disease for producers
- 2 Magazine articles on Johne's disease control
- 1 Radio interview on Minnesota's Johne's disease control program

**Herd testing:** The Board provides financial assistance for producers who wish to test their herds for the disease. Since 1998 over 200,000 cattle have been tested in the state. Approximately 3350 of Minnesota's 7000 dairy herds have been tested; 80 % have had positive test results. Testing has been done in 500 beef herds; 70 % have had positive test results.

During FY02 the Board paid the laboratory cost for testing 30 cows in a herd as a screening test for the disease. If infection was detected, the Board paid for a whole herd test, with a maximum of 200 tests per year.

## Cattle tested for Johne's Disease in FY2002

	Dairy	Beef	Mixed/ unknown	Total
Herds	1,549	165	23	1,737
Number of cattle	64,806	4,892	443	70,141

**Johne's Disease Control on the farm:** Minnesota's district veterinarians are available to perform a thorough assessment of farm management practices to help identify areas of Johne's disease risks and to make recommendations for changes to reduce the transmission of disease on the farm.

During FY2002 **320** risk assessments and herd control plans were completed.

**Identification of test-negative herds:** Test-negative herds provide a source of low risk replacement animals for producers throughout the State and are eligible for participation in the *U.S. Voluntary Johne's Disease Herd Status Program*. The number of Minnesota herds participating in this program is listed below.

### Minnesota Herds Participating in the U.S. Voluntary Herd Status Program

	Dairy	Beef	Dairy/Beef	Total
Level 1	9	3	0	12
Level 2	22	5	1	28
Level 3	9	3	0	12
Level 4	12	3	0	15
Total	52	14	1	67

**Research:** The Board, in cooperation with University of Minnesota, College of Veterinary Medicine, supports a variety of research efforts to identify better testing and more effective prevention and control methods. One of these projects is the ongoing surveillance of our **demonstration herds**. In FY2001, 6 dairy herds and 3 beef herds of varying sizes and with varying management systems were identified to participate in this project. These herds have tested positive for Johne's disease and serve as a model for control programs. These herds are closely monitored and evaluated to determine the effectiveness of the disease control programs that have been implemented.

During FY2002 1,562 elisa tests and 1,594 cultures were performed on these demonstration herds. Information from risk assessments and test results are maintained on a data base and analyzed regularly.

## Bovine Tuberculosis Surveillance

Minnesota was classified a bovine tuberculosis accredited free state by USDA in 1976. USDA, FSIS maintains a bovine tuberculosis surveillance system that checks all Minnesota cattle slaughtered for evidence of tuberculosis. If positive cattle are found, the Board of Animal Health is notified. Utilizing the back tag applied to that animal, the herd of origin is located and an investigation is done. Additionally, the Board of Animal Health follows up on all cattle that test positive on the intradermal test. The follow up consists of a comparative cervical intradermal test and an investigation of the herd of origin. Special testing requirements and permits are required on ruminants imported from Michigan due to the discovery of TB in free-ranging whitetail deer in the northeast part of that state. Thirty (30) ruminants were imported from Michigan under permit during this fiscal year.

## Slaughter Surveillance

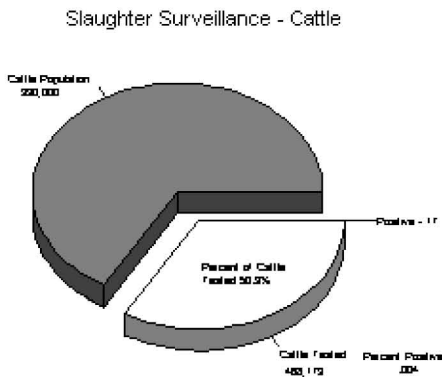
No investigations and no herd tests were completed in fiscal year 2001 because of infected cattle found.

Follow up on positive intradermal tests	
Cattle tested with the intradermal test	4,471
Number of positive tests	0
Percent positive	0.0%

One (1) cattle herd and one (1) bison herd were accredited tuberculosis-free as of June 30, 2002.

### Bovine Brucellosis Surveillance

Minnesota was classified a bovine brucellosis certified free state by USDA on October 1, 1984. Calfhood vaccination and surveillance are carried out to maintain that status. Surveillance consists of testing cattle at slaughter and testing milk from all dairy herds.

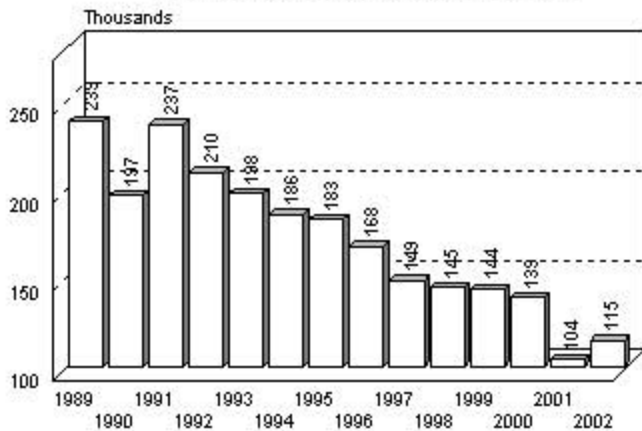


### Change of Ownership Testing in Cattle

At Livestock Auction Markets	
Cattle Tested	20,047
Positive	5
Percent Positive	0.02%
On Farm Testing	
Cattle Tested	8701
Positive	8
Percent Positive	0.09%

18 Investigations and 3 herd tests were completed because of the positive tests at slaughter.

Calves Vaccinated for Brucellosis



## Bovine Anaplasmosis

### Permits

All breeding cattle imported into Minnesota from states with a high prevalence of anaplasmosis must test negative for this disease prior to entry. Permits are issued when tests are pending or cattle are imported without testing.

**136 anaplasmosis permits were issued in fiscal year 2002.**

### Testing

In fiscal year 2002, 2,430 cattle were tested for anaplasmosis.

<b>Negative</b>	2,248
<b>Suspect</b>	103
<b>Reactor</b>	79

### Quarantines

Cattle which **test positive** for anaplasmosis are quarantined.

14 cattle on 5 premises were quarantined in fiscal year 2002 as a result of positive anaplasmosis tests.

Cases of **clinical anaplasmosis** are investigated and the herd quarantined.

7 premises were quarantined as a result of clinical anaplasmosis in fiscal year 2002.

### Brands

The Board approves, registers, and maintains records on livestock brands in the state. Forty (40) new brands were issued during



this fiscal year. Total brands now registered in Minnesota is 1,033.

## Scrapie Programs

### Scrapie Eradication Program

The USDA, APHIS National Scrapie Eradication Program went into effect on November 19, 2001. As part of this new federal program, many classes of sheep and goats require official identification when moving in interstate commerce. During FY02 the Minnesota Board of Animal Health registered and supplied ear tags to 1650 Minnesota sheep flocks. In addition, 350 goat herds registered with the Board. One hundred of these herds registered tattoos as their official identification, while the remainder received official ear tags. Tags were also issued to 31 veterinarians, 18 county extension offices, 7 markets/sale barns, 5 animal auctions, and 5 private businesses. The identification requirements of this program will enable the trace-back of scrapie-infected animals to their flock of origin.

The scrapie eradication program also requires that scrapie positive, suspect, and trace animals are investigated, reported, and control measures implemented. Activity relating to scrapie eradication within Minnesota during FY02 is summarized below.

### Scrapie Flock Certification Program

The Scrapie Flock Certification Program is a voluntary program which provides producers the opportunity to protect their sheep from scrapie and to enhance the marketability of their animals through certifying their origin in scrapie-free flocks. The intent of the program is to monitor flocks over a period of 5 years or more to identify flocks that are free of scrapie.

Source of Investigation	
Traces from infected flock	3
Suspect animal	29
Other	1
Infected flocks identified	4
Source flocks identified	0
Flocks depopulated	3
Flock plans initiated	26
Scrapie tests conducted, total	253
Test type	
Tissue IHC	88
Genotype	39
Third Eyelid	126
<b>Scrapie Investigations, total</b>	<b>33</b>

The longer a flock is enrolled and following the program requirements, the more likely the sheep in the flock are free of scrapie. The Board registers and maintains records on all participants in this program. As of June 30, 2002 there were 22 flocks enrolled in the program.

### Imports and Exports - Swine, Horses, Deer and Elk

Imported or exported between July 1, 2001, and June 30, 2002.

Type of Animal	Imported	Exported
Elk	86	763
Deer	137	293
Horses	7,398	11,747
Breeding Swine	120,774	201,255
Feeding Swine	3,802,859	1,730,582

## Pseudorabies Control and Eradication

The program to eradicate pseudorabies from Minnesota began in 1975. During that year, two infected herds were identified and placed under quarantine. Efforts intensified when the national pseudorabies eradication program was endorsed in 1989. In the following three years, all swine herds in the state were tested for pseudorabies and the infected herds were identified and quarantined.

The number of infected herds peaked in 1992 with 903 premises under quarantine.

In the years to follow, progress toward eradication was steady and the number of quarantined premises was reduced to 144 sites by the end of December 1998.

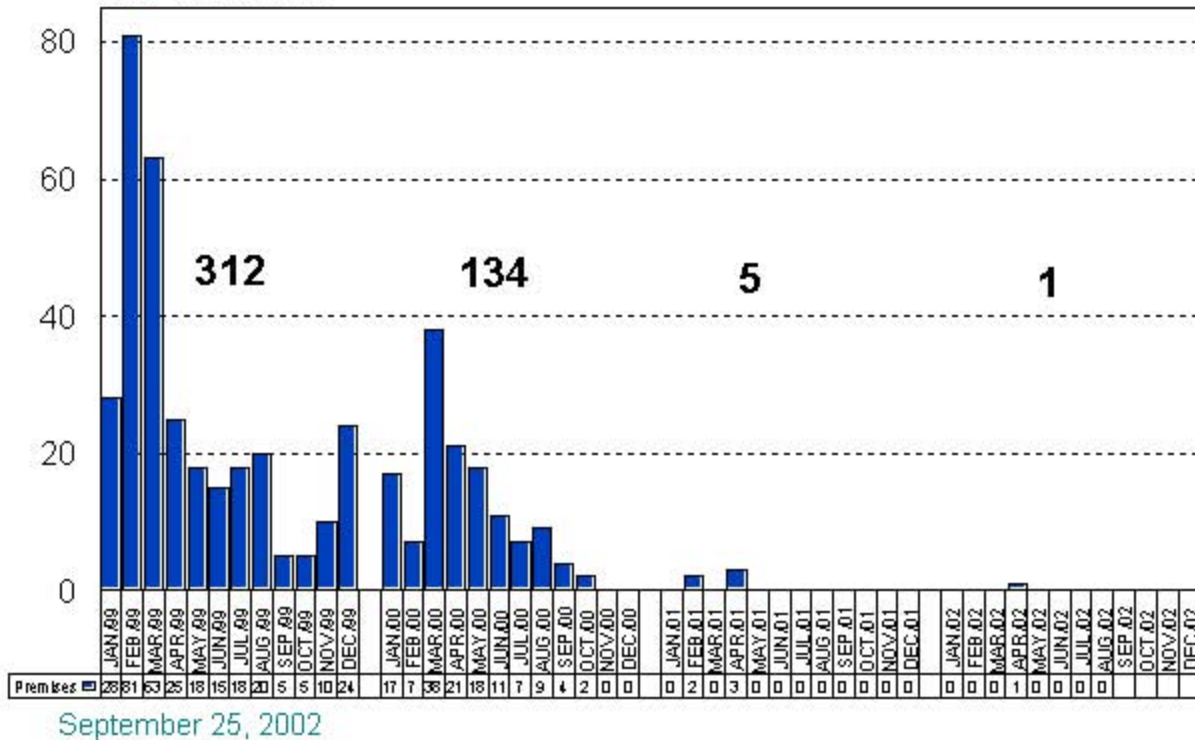
Progress toward eradication was temporarily halted when an unexpected pseudorabies epidemic began in January 1999. Virus began to spread from farm to farm in January and continued to spread during February and March. By the end of the year, over 312 new premises in six counties had been placed under quarantine. Clinical reports during the epidemic described outbreaks where death losses in swine herds were unusually high. Death losses in other species, including sheep, dogs, cats, and cattle were also reported.

Progress was halted once again when a second epidemic began in February 2000. This time, the outbreak occurred predominantly in Waseca and Blue Earth counties. These counties had been relatively free of pseudorabies for a number of years and producers were not prepared for the event. Few of the pigs in these counties were vaccinated and over 100 new premises were infected before spread was brought under control.

# New Pseudorabies Quarantines

1999-2002

New Quarantines



One herd in Nobles county was quarantined in April 2002. This herd was depopulated within 15 days and released from quarantine in June 2002.

In an effort to prevent outbreaks, pork producers continued to vaccinate pigs for pseudorabies. Federal dollars were available during fiscal year 2002 and producers were reimbursed \$1,391,228 (.25/dose) for vaccinating 5,564,912 pigs.

## Pseudorabies Testing Activity

July 1, 2001 to June 30, 2002

Type of Test	Test Charts	Number of Pigs Tested
Monitoring Tests	1,261	30,311
Circle Tests	78	3,996
Traces from Infected Herds	0	0
Traces from Slaughter Tests	36	2,036
Infected Herd Tests	5	600
Qualified Herd Tests	1,328	47,494
Imported Swine	1,240	24,722
Private Sale	338	21,778
Show or Exhibition	961	5,791
Tests at Slaughter Plants	438	81,665
Diagnostic Tests	484	12,028
<b>Total</b>	<b>6,196</b>	<b>230,421</b>

Pseudorabies Program Stages - Five "program stages" are defined in the National Pseudorabies Eradication Program. Program Stages - Five program stages are defined in the National Pseudorabies Eradication Program which classify states in their progress toward complete eradication of the disease.

- Stage I is the "Preparation" stage. This is the initial program stage in which the basic procedures to control and eradicate pseudorabies are developed.
- Stage II is the "Control" stage. The goals of this stage are for a state or area to determine which herds are infected with pseudorabies and to begin herd cleanup.
- Stage III is the "Mandatory Herd Cleanup" stage. In this stage, the cleanup of infected herds becomes mandatory. For a state or area to qualify for this stage, prevalence of pseudorabies infected herds must be less than one percent of the total swine herds in the state or area.
- Stage IV is the "Surveillance" stage. For a state or area to qualify for this stage, there may be no known infected herds in the state or area.
- Stage V is the "Free" stage. For a state or area to qualify for this stage, the state or area must have had no known infected herds for one year since the recognition of Stage IV status.

## Swine Brucellosis Surveillance

Minnesota was declared Validated Swine Brucellosis Free on May 1, 1975. A slaughter surveillance program is used in Minnesota to maintain Swine Brucellosis Free status where at least 5% of the state's breeding swine population is subjected to an official brucellosis test each year. All suspects are traced to the herd of origin and such herds are subjected to an official random sample herd test.

Minnesota is Validated Swine Brucellosis Free until April 30, 2005.

## Swine Brucellosis Testing Activity

### July 1, 2001 to June 30, 2002

Type of Test	Number of Pigs Tested
Validated Herd Tests	39,771
Diagnostic Tests	2,441
Tests at Slaughter Plants	79,790
Traces from Slaughter Tests	0
Private Sale Tests	257
<b>Total</b>	<b>122,259</b>

## Feeding of Garbage to Livestock and Poultry

No person may feed garbage to livestock or poultry in Minnesota unless a permit has been obtained from the Board of Animal Health. All garbage fed to livestock must be cooked at 212 degrees Fahrenheit for 30 minutes and facilities and trucks must be inspected each month. There are currently 10 producers in Minnesota who have obtained permits from the Board to feed garbage to pigs.

Livestock producers may also apply to the Board for an "Exempt Materials" permit. Such a permit allows producers to feed certain non-meat food waste ("exempt materials") to livestock and poultry without cooking it prior to feeding. There are 10 producers who currently have obtained permits from the Board to feed exempt materials.

## Swine Tuberculosis Surveillance

Swine can become infected with bovine tuberculosis, but only by direct contact with infected cattle. When bovine tuberculosis was eradicated from the Minnesota cattle population, it was also eradicated from the swine population. All currently occurring cases of tuberculosis in swine in Minnesota are caused by avian tuberculosis which is an environmental contaminant and is inhaled or ingested by swine in close contact with infected birds or their environment.

The Food Safety Inspection Service (FSIS) does maintain a program to identify tuberculosis lesions in swine. If the lesions appear in one location, the affected area is trimmed and the carcass is passed. If the lesions appear in two locations, the affected areas are trimmed and the carcass is passed for cooking. If the plant has no facility for cooking, the carcass is condemned. If the lesions are generalized, the carcass is condemned.

## Equine Infectious Anemia (EIA)

Equine infectious anemia (EIA) is a viral disease of horses. It is also known as swamp fever, malarial fever, mountain fever, or slow fever. There is no vaccine or treatment for the disease. Once a horse is infected, it is infected for life. Once infected, a horse is always a reservoir for spread of the disease.

EIA is caused by an RNA virus which is classified as a retrovirus. EIA virus is further categorized as a lentivirus, a group of RNA viruses which generally cause slowly progressive, often fatal diseases. It is closely related to the human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS) in humans.

EIA kills from 30 to 70 percent of infected horses.

EIA is a blood borne infection. It is transmitted between horses by the transfer of blood. It is most frequently transmitted between horses in close proximity by large biting insects, such as horse flies and deer flies (tabanids). Mosquitoes are not considered to be a vector for EIA because they do not transfer enough blood between horses to cause infection.

The Agar Gel Immunodiffusion test (AGID), also known as the Coggins test is the most widely accepted procedure for diagnosis of EIA.

In Minnesota, infected horses are placed under quarantine, isolated from other horses, and are not permitted to be moved from the quarantined premises without written permission from the Board of Animal Health.

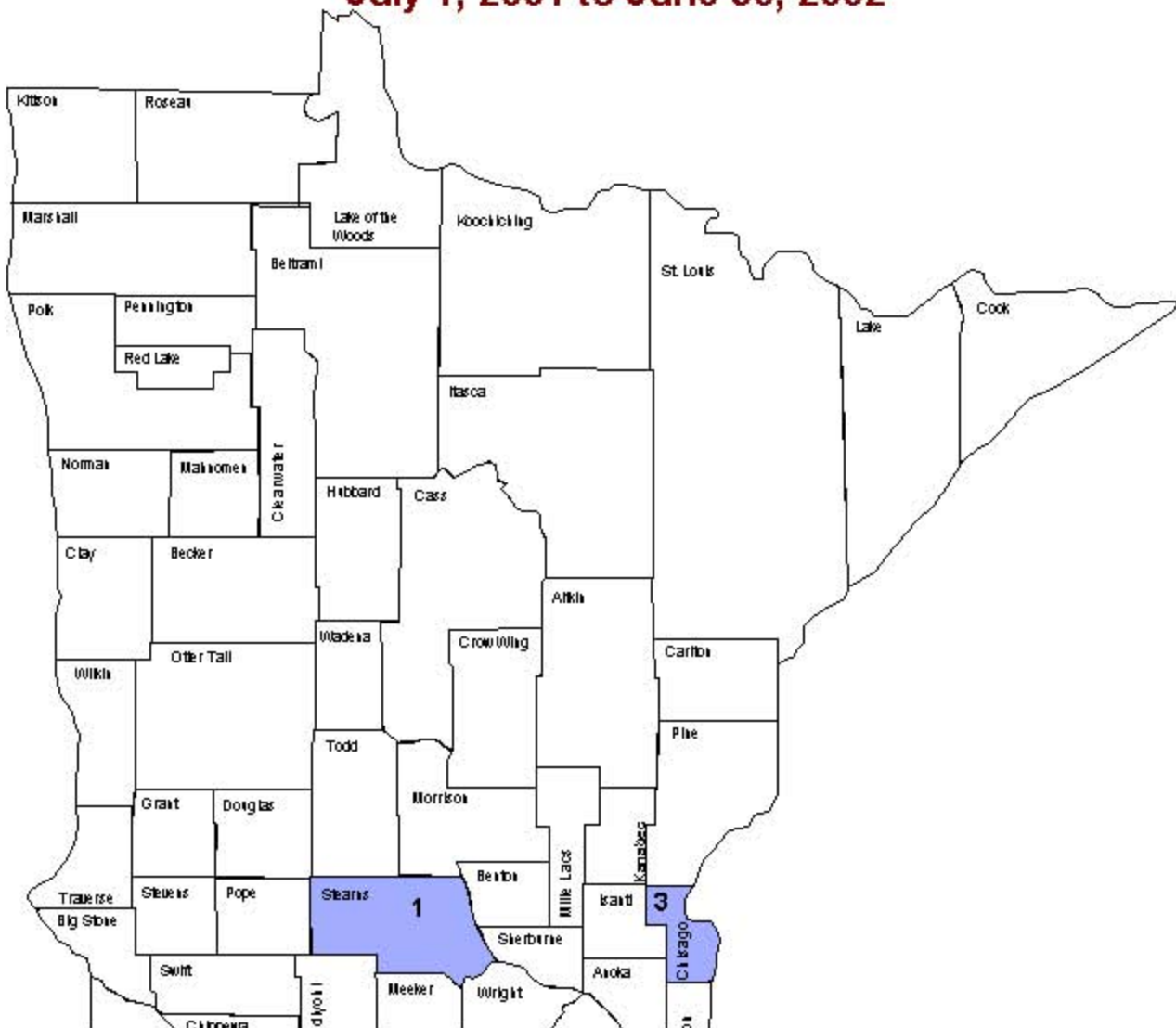
Since 1972 when the national program to control EIA began, 633 Minnesota horses have been diagnosed with EIA.

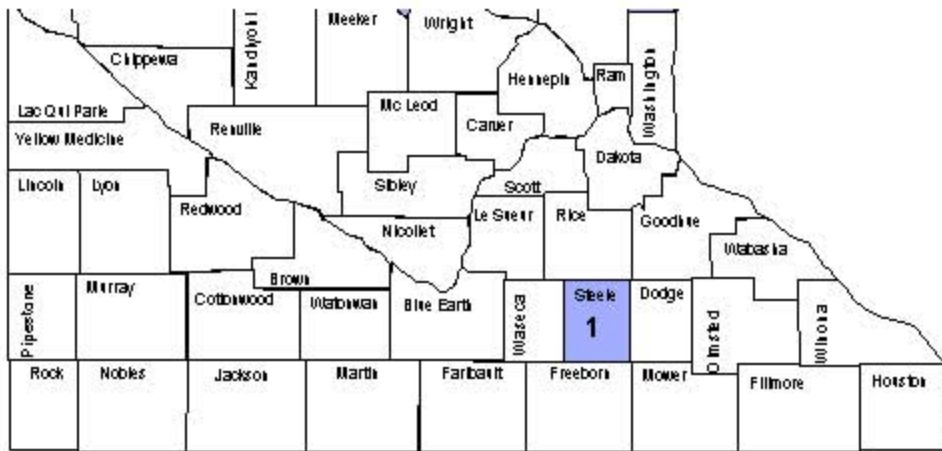
During Fiscal Year 2002, five new cases of EIA were identified.

## Equine Infectious Anemia Testing Activity July 1, 2001 to June 30, 2002

Type of Test	Test Charts	Number of Horses Tested
Diagnostic	49,414	49,414

## Equine Infectious Anemia (EIA) New Cases = 5 July 1, 2001 to June 30, 2002





## Programs for Cervidae (deer, elk, reindeer, moose, caribou)

### Chronic Wasting Disease, Tuberculosis, and Brucellosis

The Minnesota Board of Animal Health (BAH) administers voluntary programs designed to detect cases of Chronic Wasting Disease (CWD), Tuberculosis, and Brucellosis in Minnesota's farmed deer and elk herds. These prevention programs help assure that farmed deer, elk and other cervids (deer family) and products derived from them are free of these diseases.

Minnesota has 288 farmed cervid herds that are registered with the Board of Animal Health. Of these, 225 have elk, 41 have white-tailed deer, 16 have a mixture of deer and elk, and 6 operations raise reindeer or other varieties of cervidae. There are 11,157 elk, 1,468 deer and 198 other cervid species currently on Minnesota farmed cervidae operations.

Under the CWD program, participating operations identify and maintain records of all animals entering and leaving the herd. Brain tissue samples are submitted from any animal older than 16 months of age that is slaughtered or that dies for any other reason. These samples are sent to the National Veterinary Services Laboratory (NVSL) in Ames, Iowa, where they are tested for CWD. Minnesota producers have submitted more than 700 brain samples to NVSL since the inception of the CWD surveillance program for farmed cervidae. All have tested negative for the disease.

A total of 202 farmed cervid herds are participating in the CWD prevention program, some for five or more years. A history of three or more years of program participation with no positive tests provides strong evidence of CWD freedom.

Importation of all cervidae is restricted as follows:

**CWD Import Restrictions** - A person must not import cervidae into the state from a herd that is infected or exposed to chronic wasting disease or from a known chronic wasting disease endemic area, as determined by the board. A person may import cervidae into the state only from a herd that is not in a known chronic wasting disease endemic area, as determined by the board, and the herd has been subject to a state or provincial approved chronic wasting disease monitoring program for at least three years. Cervidae imported in violation of this section may be seized and destroyed by the commissioner of natural resources.

**Tuberculosis Import Restrictions** - Cervidae over 6 months of age imported into Minnesota must be tested and negative for tuberculosis within 90 days of movement or originate from a tuberculosis accredited herd.

**Brucellosis Import Restrictions** - Cervidae over 6 months of age imported into Minnesota must be tested and negative for brucellosis within 30 days of movement or originate from a brucellosis certified herd.

## POULTRY, COMPANION ANIMALS AND MISCELLANEOUS SPECIES DISEASES DIVISION

### DIVISION ACTIVITIES

- § Promulgation of Rules
  - § Duties relating to Assistant Executive Director
  - § Legislation Tracking
  - § Composting of animal carcasses
  - § Avian Influenza Monitoring Program and reporting
  - § Lyme Disease monitoring
  - § Monitoring of poultry flocks for Salmonellas and Mycoplasmas
  - § Monitoring of Zoonotic Diseases in cooperation with Minnesota Department of Health
  - § Approve poultry export and import certificates
  - § Avian Pneumovirus
  - § Poultry exhibitions and sales
- Record keeping of animal disease reports for miscellaneous diseases

## MINNESOTA POULTRY TESTING LABORATORY (MPTL)

### ACTIVITIES

- § **Monitoring of egg-type breeder flocks for Salmonellas and Mycoplasmas**
  - § **Monitoring of turkey breeder flocks for Salmonellas and Mycoplasmas**
  - § **Monitoring of broiler breeder flocks for Salmonellas and Mycoplasmas**
  - § **Monitoring of waterfowl, game-bird, exhibition poultry flocks for Salmonellas and Mycoplasmas**
  - § **Avian Influenza Surveillance Program**
  - § **Avian Influenza Reporting, Disease Alerts and Epidemiology**
  - § **Avian Pneumovirus Surveillance Program**
  - § **Avian Pneumovirus Reporting and Disease Alerts**
- **Avian Pneumovirus Controlled Exposure (CE) virus distribution**

## MINNESOTA POULTRY TESTING LABORATORY (MPTL)

The Minnesota Poultry Testing Laboratory (MPTL) located in Willmar, MN assists Minnesota's poultry industries to provide an abundant supply of wholesome and nutritious food by conducting avian health testing services that are essential to maintaining vigorous and healthy poultry populations in the state. It serves as the poultry field laboratory for avian disease surveillance, a collaborative research center for avian diseases and as an educational center for poultry producers and for personnel conducting field investigations of avian diseases in Minnesota.

Over the past several years, the workload at the MPTL has increased dramatically due to:

- § The sustained growth of the poultry industry in order to provide a nutritious food supply to a health conscious population,
- § An increased awareness of food safety that has prompted the poultry industries to seek increased testing to help eliminate diseases from their flocks.
- § Additional programs of the National Poultry Improvement Plan, a federal agency with which we have a State-Federal Cooperative Agreement to serve as the official laboratory.
- § Avian Pneumovirus - A disease of turkeys affecting Minnesota flocks.
- § Avian Influenza - Increased testing for trade/export purposes

### PULLORUM-TYPHOID PROGRAM

Minnesota received the Pullorum-Typhoid Free State Classification for turkeys in January, 1973 and the U.S. Pullorum-Typhoid Clean State Classification in August, 1975, both from USDA. Since July 1, 1975, commercial-type turkey and



chicken hatcheries can participate in the program and qualify their breeding flocks without a test. Exhibition, game and waterfowl hatcheries are still required to have their breeding flocks tested under a partial testing schedule. Blood samples from turkey and egg-type chicken flocks submitted to the laboratory for other purposes are still monitored for Pullorum-Typhoid Disease using a combination antigen.

## PULLORUM-TYPHOID PROGRAM TESTING

POULTRY TYPE	INITIAL TESTS	BIRDS TESTED	BIRDS IN FLOCK	RESULTS
Turkey breeders	69	30,698	833,303	Negative
Egg-type chicken breeders	7	2,100	81,774	Negative
Chicken broiler breeders	33	0	426,271	Qualify No test required
Waterfowl, game, backyard, including wild turkeys Serology	53	6,158	12,781	Negative
Waterfowl, game, backyard Hatchery debris testing	45	272	33,340	Negative
Waterfowl, game, backyard Serologic reactors	2	2	50	Negative
Ratites	1	2	2	Negative
<b>TOTALS</b>	<b>231</b>	<b>39,232</b>	<b>1,387,521</b>	

### Exhibition Testing (Individual flocks)

Poultry exhibited or sold in Minnesota must meet the testing requirements. Poultry test records, health certificates, Statement of Origin and other forms are submitted to the agency at the completion of exhibitions, fairs and sales. The forms are checked for accuracy and contact is made with the testing agent, exhibition/sale managers, or veterinarians when required. Poultry from out of state exhibited in Minnesota must also meet the Minnesota Importation Requirements.

### SALMONELLA ENTERITIDIS PROGRAM (Egg-type Chickens)

All egg-type chicken breeding flocks and hatcheries participated in the Salmonella enteritidis program. Environmental samples and blood samples were submitted from 30 flocks supplying two Minnesota hatcheries. 2,100 blood samples were tested serologically for Salmonella enteritidis and all samples were negative. 2,074 environmental samples were tested for Salmonella. 631 samples were positive for Salmonella paratyphoids, but all environmental samples were negative for Salmonella enteritidis.

### SALMONELLA CONTROL PROGRAM - TURKEYS

The Minnesota Salmonella typhimurium program was established in 1971 to identify flocks infected with S. typhimurium on the Official Test. These flocks cannot be used for the production of hatching eggs if the hatchery elects to maintain

its "S. typhimurium tested" classification. All turkey breeder flocks participate in the Sanitation Monitored Program to reduce and monitor Salmonella levels in their breeder flocks. The NPIP program by the same name is used as the guideline for Salmonella test standards. In addition, a cooperative Salmonella control program was established in 1980 to help control Salmonella in Minnesota turkey breeder flocks. Both the Minnesota turkey industry and the primary breeders have agreed to specific test standards for Salmonella, and have agreed to report their Salmonella serotypes to each other. The goal is to differentiate the serotypes that are transmitted through the parent stock and the serotypes that are transmitted from the environment and feed.

- 30,698 turkeys from 69 flocks were serologically tested for Salmonella as part of the Official Test using a combination pullorum-typhimurium plate antigen.

All samples were negative.

- 46,000 turkeys from 92 flocks were cultured via rectal swabs for Salmonella as part of the Official Test. 52 flocks were positive for Salmonella with 419 Salmonella paratyphoid recoveries. 18 different Salmonella serotypes were identified.

S. typhimurium was isolated from one recycled flock.

- 1,271 environmental samples from 69 flocks on 34 premises were cultured. 52 flocks were positive for Salmonella with 356 Salmonella paratyphoid recoveries. 16 different Salmonella serotypes were identified.
- 1,077 pre-placement environmental samples from 125 flocks on 36 premises were cultured. 11 flocks were positive for Salmonella with 44 paratyphoid recoveries. 10 different Salmonella serotypes were identified.
- 110 hatchery debris samples from 41 parent breeder flocks were cultured. There were 5 Salmonella recoveries involving 3 flocks.
- 3,599 hatchery debris samples from six Minnesota turkey hatcheries were cultured. 707 samples were positive for Salmonella.

## MYCOPLASMA PROGRAM - POULTRY

All turkey breeder flocks participate in the Mycoplasma gallisepticum (MG), Mycoplasma meleagridis (MM) and Mycoplasma synoviae (MS) test programs. Minnesota received the U.S. Mycoplasma gallisepticum Clean State-Turkeys classification in February of 1980. All chicken breeder flocks in Minnesota are participating in the MG and MS programs.

Any breeder flock positive for Mycoplasma gallisepticum or Mycoplasma synoviae will be quarantined and no products may be used until all positive birds are removed and there is a negative test on the remaining birds. Positive flocks are usually depopulated. Mycoplasma meleagridis is a voluntary program and positive flocks are not quarantined or restricted.

One (1) turkey flock was diagnosed with Mycoplasma meleagridis. There are no restrictions on products with MM but the hatchery did not qualify for MM NPIP Clean status. Two (2) wild/exhibition turkey flocks were positive for MG. The positive birds were removed from the flocks.

## MYCOPLASMA PROGRAM TESTING

POULTRY TYPE	FLOCKS	BIRDS IN FLOCK	MG TESTS	MM TESTS	MS TESTS	POSITIVE FLOCKS
Egg-type Chicken breeders	10	115,937	4,258		4,333	0
Broiler breeders	33	426,271	11,663		11,723	0
Turkey breeders	91	836,303	39,322	40,439	39,792	1-MM
Wild/exhibition turkeys	20	311	360	72	168	2-MG
<b>TOTALS</b>	<b>154</b>	<b>1,378,822</b>	<b>55,603</b>	<b>40,511</b>	<b>56,016</b>	

## AVIAN INFLUENZA PROGRAM

In 1984, a Minnesota Poultry Industry Task Force was formed to set up controls for Avian Influenza. They developed four objectives:

1. Preventing introduction.
2. Voluntary control and eradication of an outbreak.
3. Eradication program.
4. Voluntary control and eradication program.

In 1986 a cooperative, voluntary processing plant monitoring program for commercial turkeys began as surveillance for Avian Influenza if and when it is introduced into the Minnesota poultry industry. This cooperative program between the Minnesota turkey industry and Board of Animal Health continues today. Twenty blood samples per flock are tested for Avian Influenza using Agar Gel Immunodiffusion (AGID) test reagents from the National Veterinary Services Laboratory (NVSL), Ames IA. In addition, positive AI samples from industry laboratories are forwarded to the MPTL for submission to NVSL. When a flock is identified based on a positive AGID test, samples are immediately sent to NVSL for sub-typing. In addition a reporting network is activated to alert the rest of the poultry industry and a District Veterinarian conducts an epidemiological investigation to determine the source of introduction. In response to the changing Avian Influenza situation locally, nationally and internationally, surveillance of Avian Influenza has increased due to:

Emergence of Highly Pathogenic Avian Influenza in the world

Test requirements for export into Mexico

Global and world trade Issues

## AVIAN INFLUENZA PROGRAM TESTING

POULTRY TYPE	AGID TESTS	NO. FLOCKS	NO. FLOCKS POSITIVE	AI TYPE
Commercial Turkey Surveillance	59,429	2,361	8	H?N?, H1N1, H10N7
Turkey breeders	1,067	51	0	
Broiler breeders	1,040	52	0	
Other commercial Turkey flocks	45	3	3	H1N1, H10N7
<b>TOTALS</b>	<b>61,581</b>	<b>2,467</b>	<b>11</b>	<b>H?N?, H1N1, H10N7</b>

There were 5 introductions of Avian Influenza into 7 flocks on 4 farms in Minnesota and 4 flocks on 2 farms in North and South Dakota.

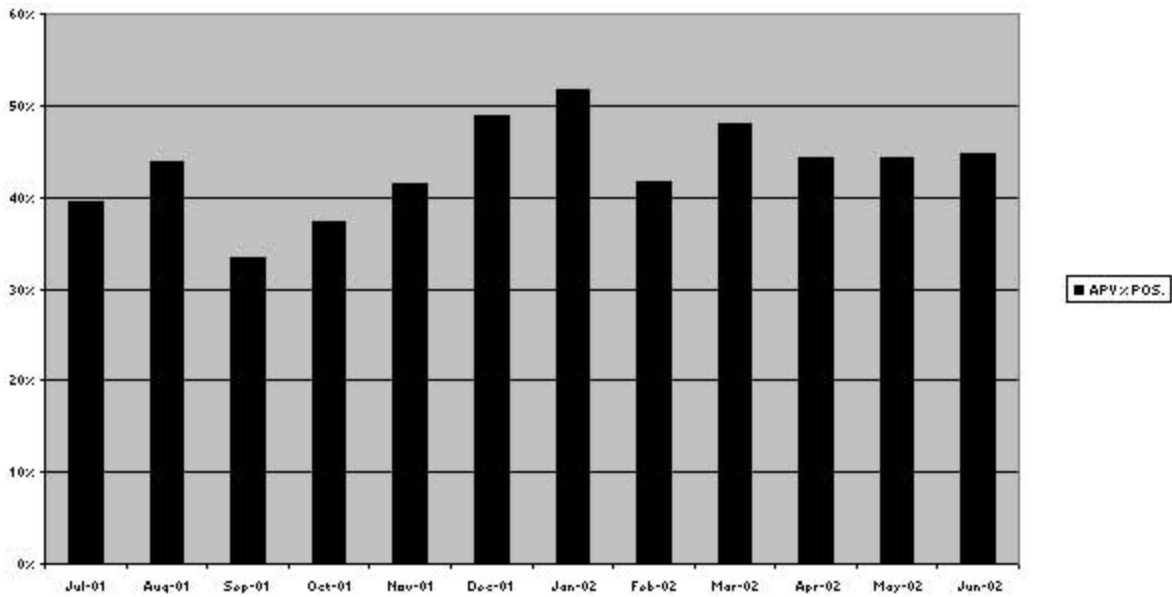
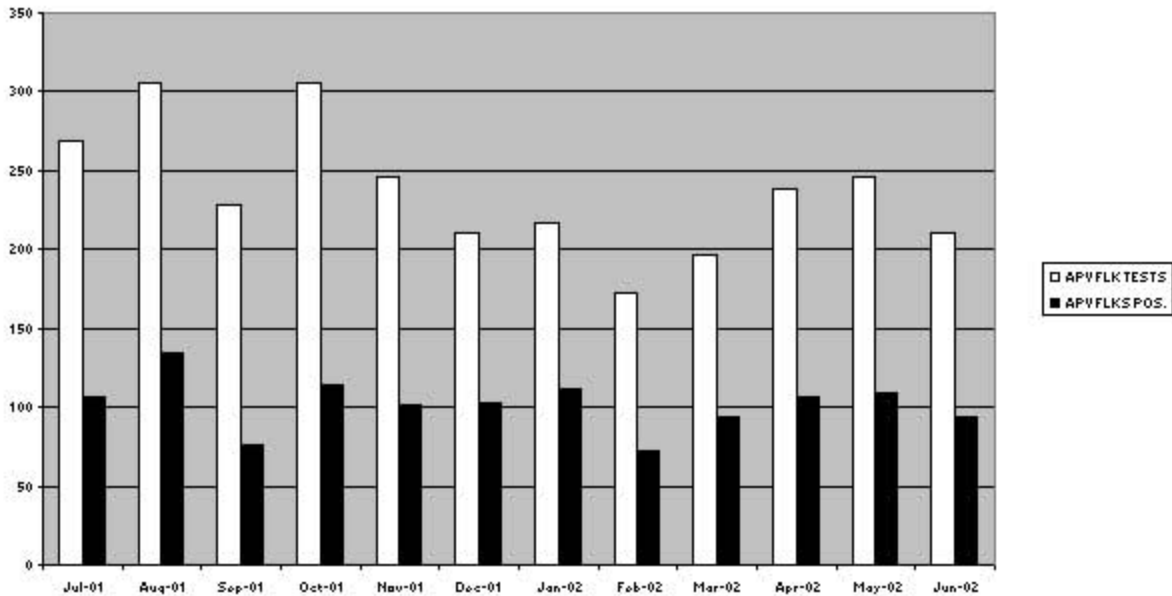
Brown Co. 1 flock - H1N1

5 flocks H10N7  
Redwood Co. 1 flock - H1N1

North Dakota 1 flock - H1N1  
South Dakota 3 flocks - H?N?

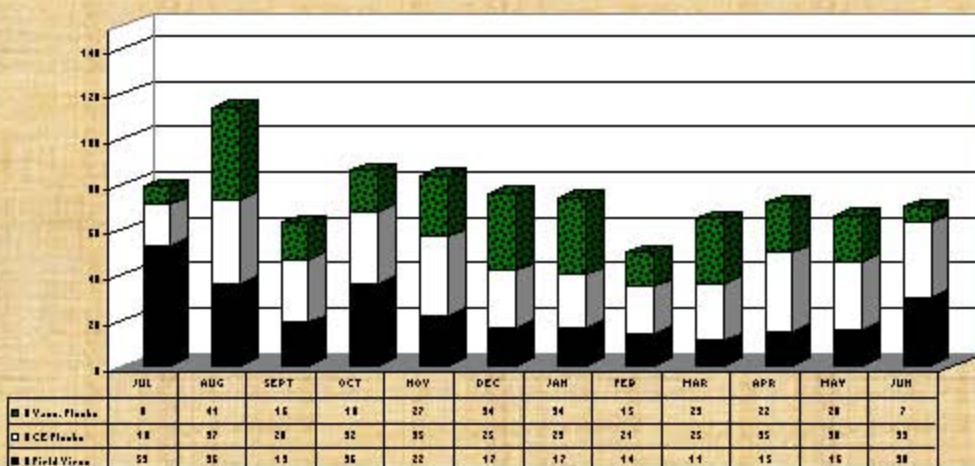
# AVIAN PNEUMOVIRUS

Avian Pneumovirus (APV) is a viral disease of turkeys that has affected the Minnesota turkey industry since 1997. The disease has been diagnosed in Minnesota and in a few flocks in neighboring states. The Minnesota turkey industry requested the Board to develop an APV Prevalence Program to identify infected flocks. The program developed uses the Avian Influenza processing plant-monitoring samples from all flocks grown or processed in Minnesota. The program began in August 1998 using an ELISA test developed at the University of Minnesota. The results for FY '02 are 28,548 turkeys from 2,846 flocks were tested for APV. 1,222 flocks were positive for Avian Pneumovirus. A summary of all test results follows:

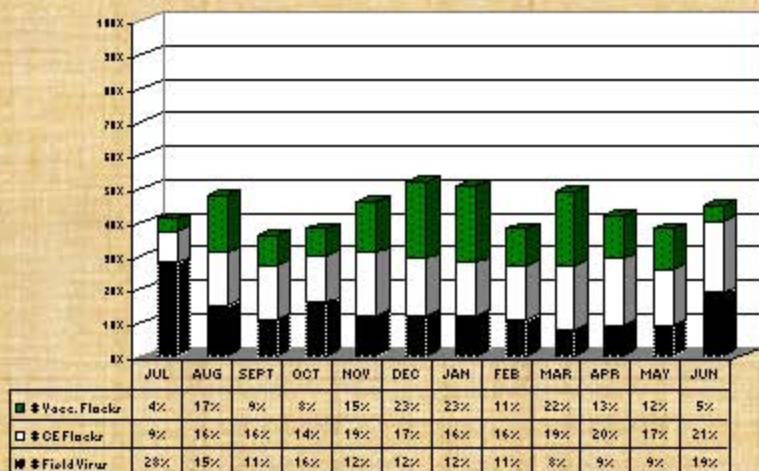


Based on information that has been generated as part of the prevalence program, flocks are serologically positive as result of field virus exposure, vaccination with a killed vaccine in the hatchery or Controlled Exposure (CE) in the field. A graph that highlights these differences for the processing plant surveillance follows:

APV Processing Plant Surveillance - # Positive Flocks



APV Processing Plant Surveillance - % Positive Flocks



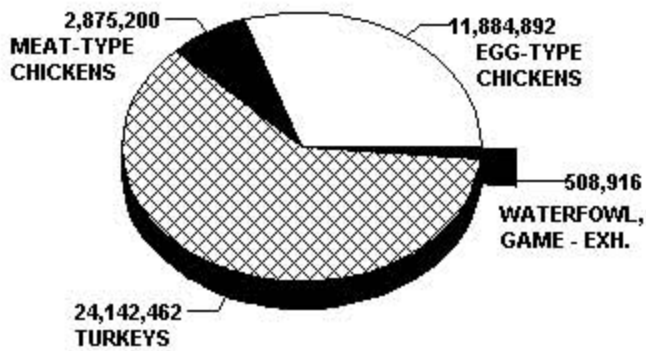
The MPTL cooperated with the Minnesota turkey industry as CE virus was distributed from the laboratory. 133 vials of p41 virus and 2,595 vials of p63 virus was distributed to turkey growers for exposure of 11,990,580 Minnesota turkeys, in an effort to reduce the clinical disease. The MPTL continues to cooperate with the Minnesota turkey industry in the control and eradication of APV through distribution of APV-CE virus, providing APV prevalence reports at industry meetings, starting a Clinical Signs Reporting System for growers and encouraging the development of an effective

vaccine.

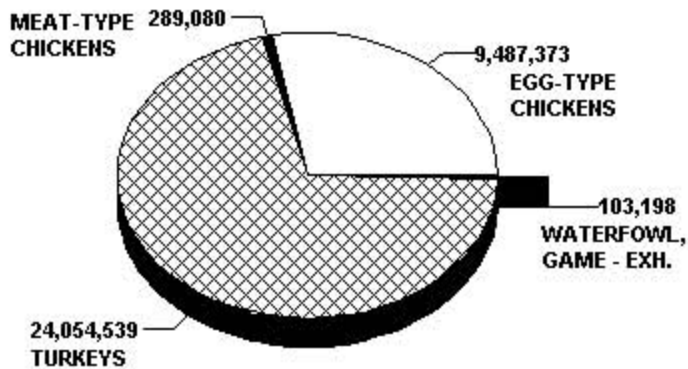
## POULTRY IMPORTS AND EXPORTS

Poultry import permits were issued to 160 out of state hatcheries. These permits are issued on an annual basis. The numbers below include hatching eggs, baby, and adult poultry, except for slaughter poultry. With poultry exports, the NPIP papers are examined to assure compliance with the state of destination requirements.

### POULTRY IMPORTS



### POULTRY EXPORTS



## PET BIRDS

No avian species may be imported into Minnesota which is infected with or has been exposed to exotic Newcastle disease or originates from an area or premises under quarantine because of exotic Newcastle disease.

## PARTICIPATION - POULTRY DISEASE PROGRAMS

§ Hatcheries and Independent Flockowners operating under permit from the Board

- Chicken 3
- Turkey 10
- Waterfowl, Game, Exhibition, and Backyard flocks 112

125	
§ Poultry Dealers operating under permit from the Board	233
§ Hatchery and Poultry Dealer inspections/visits	308
§ Poultry testing schools conducted	2
• Attendance	
○ St. Cloud, MN (Chicken only)	9
○ Monticello, MN	25
§ Field instruction schools conducted by district veterinarians	33
§ Testing authorizations issued (effective for three years)	81
○ Temporary authorizations	14
§ Lay testers holding current authorizations	339

## ANTHRAX

In the summer and fall of 2001 (FY '02), Anthrax was diagnosed on 21 farms and caused the death of 2 horses, 2 free-ranging deer and approximately 100 cattle.

In March, 2002, the Biologics Rule was changed to allow producers to vaccinate their own animals against Anthrax. This resulted in almost all the cattle in the northwestern Minnesota Anthrax area being vaccinated.

In the summer of 2002, no Anthrax was diagnosed in Minnesota.

## RABIES

57 investigations were conducted by district veterinarians

51 animals were quarantined on 25 premises for exposure to a rabid animal

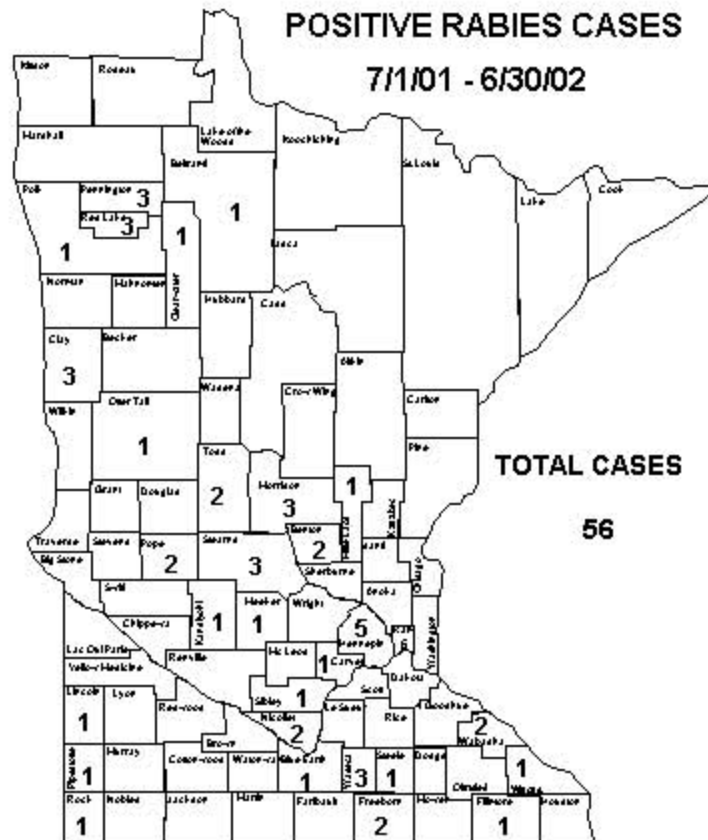
Bovine	24
Canine	22 + 10 euthanized
Equine	1
Feline	4 + 14 euthanized

## Number of Rabies Cases by Species



Species	Total cases	Clinical Diagnosis	Laboratory Diagnosis
Bat	19	3	16
Bovine	6	2	4
Canine	6	0	6
Equine	2	0	2
Feline	3	1	2
Skunk	20	3	17
All Species	56	9	47

**56 cases were located in 30 counties.**



## IMPORTATION OF DOGS AND CATS

**Rabies vaccinations are required for dogs and cats 3 months of age and over that are entering Minnesota. Import certificates are reviewed and quarantines established as needed until the animals have been vaccinated.**

**Export Certificates of Veterinary Inspection.** Certification is made that the issuing veterinarian is licensed and accredited and the form is completely filled out. Copies are sent to the state of destination.

## LICENSING OF DOG AND CAT DEALERS AND KENNELS AND INSTITUTIONS TO PROCURE IMPOUNDED ANIMALS



<b>Licenses Issued</b>	<b>Dealers</b>	<b>Humane Societies</b>	<b>Individuals and Kennels</b>	<b>Veterinary Clinics</b>	<b>Research Inst.</b>
New	0	0	5	0	0
Renewals	1	39	33	60	3

**Inspections by Board employees** 256  
**Other investigations (complaints)** 5

## **PET FOOD PROCESSING**

**Board of Animal Health Agriculture Specialists** inspect all pet food processors for compliance with agency rules and state statutes. Permits are issued yearly to establishments to process pet food. Three permits were issued in this fiscal year.

## **RENDERING PLANTS**

Permits to operate a rendering plant or act as an independent hauler are issued yearly. Agriculture Specialists inspect all rendering facilities and trucks for compliance with Board of Animal Health rules.

### **Number of Permits Issued**

**Minnesota Rendering Plants** 10  
**University of Minnesota** 1  
**Independent Haulers** 8  
**Out-of-state Plants** 3

**Inspections conducted at rendering facilities,  
pet food establishments and reload stations** 16

**Minnesota trucks inspected** 157

**Out-of-state trucks** 3

## **Dead Animal Disposal**

The Board of Animal Health investigates complaints concerning the disposal of dead livestock. These complaints come from the general public, law enforcement personnel, municipalities and other agencies. Agriculture Specialists visit the premises to ensure disposal of carcasses complies with Board of Animal Health rules. 40 visits were made to 26 premises. One fine was issued and warning letters were sent to additional premises.

## **Dead Animal Composting**

Composting is approved in Minnesota as a method for disposal of poultry, sheep, goat, and swine carcasses. The process converts waste products such as animal carcasses, straw, sawdust, and poultry litter into an odorless, inoffensive, generally pathogen-free product that can be used as an organic fertilizer. Board of Animal Health rules require that composting facilities must be constructed on an impervious pad using rot resistant materials. Questions about composting carcasses may be directed to the Board office.

## MONITORING OF ZOO NOTIC DISEASES IN COOPERATION WITH THE MINNESOTA DEPARTMENT OF HEALTH

### LYME DISEASE

Reported cases of Lyme Disease in Minnesota during Fiscal Year 2002:

Canine	134
Equine	4

Since there is no history of either positive or negative cases, a titer of 1:320 or more is considered a positive case.

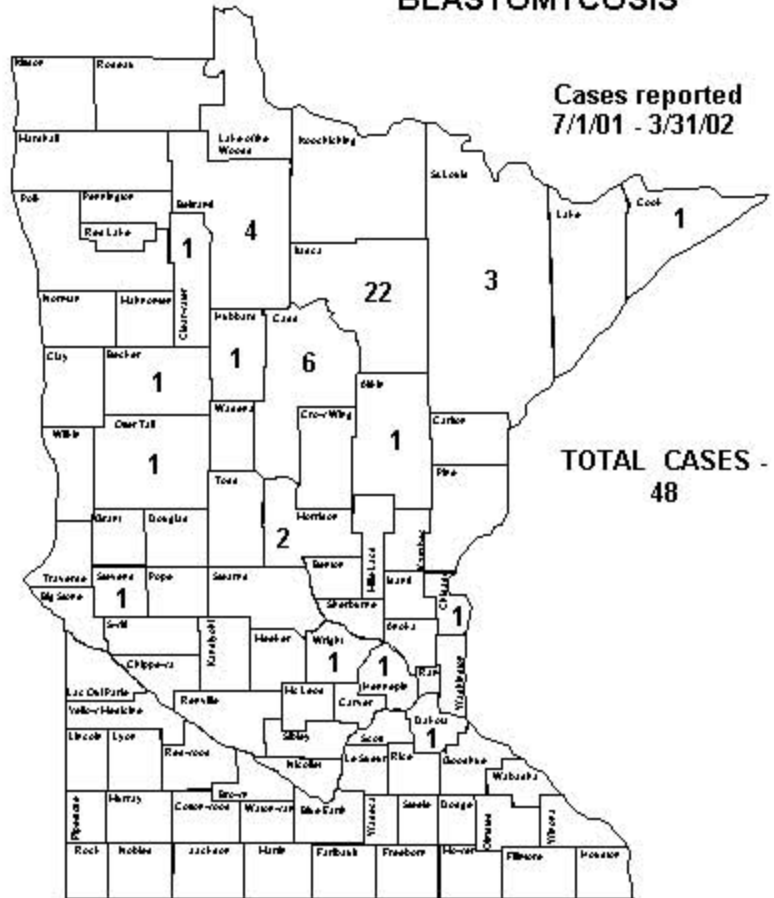
**BLASTOMYCOSIS, TULAREMIA AND BUBONIC PLAGUE** were made reportable diseases in Minnesota. This requires all cases of these diseases diagnosed by a veterinarian to be reported to the Board of Animal Health. The Board then reports them to the Minnesota Department of Health. The Department of Health uses the disease in the animals as a sentinel for human disease and to pinpoint areas in the state where they may be endemic. This has new significance since the September 11, 2001 terrorist attack.

Tularemia and Plague - No cases

### BLASTOMYCOSIS

Exposure may not have occurred in the county location of the animal. Through a cooperative program, as of April 1, 2002, reports are going directly to the Minnesota Department of Health from the veterinarian.

No. of Blastomycosis cases reported 7/1/01 - 3/31/02.

**BLASTOMYCOSIS**Cases reported  
7/1/01 - 3/31/02TOTAL CASES -  
48**SALE AND USE OF VACCINES**

This division also issues permits for the sale and field trials of biologics and antigens.

There were two investigations for the illegal use or sale of vaccine.

Notification letters were sent to nine distributors informing them of Minnesota rules relating to the sale and/or distribution of modified live products in Minnesota.