Animal Health News

Veterinary News from the North Dakota State Board of Animal Health

Rabies: A positive case in Grand Forks

Two stray dogs were brought to the Circle of Friends Humane Society in Grand Forks on March 9. They were processed according to shelter protocols and named "Cookie" and "Bingo."

Bingo was euthanized March 19, after shelter workers determined his personality made him unadoptable. Since there was no suspicion of rabies, he was not tested for the disease. The next day, Cookie was placed in a foster home in Grafton. Five days later, Cookie began to act abnormally, vomited at least once, and was returned to the shelter. She was examined March 27, by Dr. Clay Seright at Kindness Animal Hospital, who noted the dog exhibited hyperesthesia, tremors, ataxia, mydriasis and inability to walk or stand. He recommended euthanasia and rabies testing. The rabies was confirmed March 31, by the North Dakota State University Veterinary Diagnostic Laboratory.

Since the two dogs had been picked up and housed together, it was determined that Bingo had been potentially rabid as well. Minnesota authorities identified a Marshall County, MN, farm as the source of the dogs. The dogs had not been vaccinated for rabies, and the farm owner recalled a skunk odor in the yard sometime in February.

Although shelter protocols minimized contact among animals, exposure of other dogs in the shelter could not be ruled out. Consequently, 25 potentially exposed dogs in the shelter were euthanized. All tested negative for rabies. Thirty-nine dogs that had been in the shelter at some time during the potential viral shedding period were evaluated. The recommendation for 12 dogs that had been vaccinated for rabies was immediate revaccination and a 45-day, at-home observation period. Eleven dogs were euthanized and tested; all tested negative. Owners of 14 dogs opted for a six-month, strict isolation period. The BOAH, in co-



Cookie and Bingo at the Circle of Friends Humane Society shelter in Grand Forks.

operation with other agencies, will monitor these cases to ensure compliance. One owner has since failed to comply with the recommendations, so that one dog has been euthanized and tested, and another dog died of trauma. Two dogs were determined to have no potential for exposure.

The Department of Health evaluated a large number of potentially exposed shelter employees, volunteers, and others of whom 43 received post-exposure prophylaxis (PEP).

This case serves as a powerful reminder to encourage responsible pet ownership, timely rabies vaccination, and good biosecurity protocols. All recommendations and decisions in this case were made based upon the Compendium on Animal Rabies Control and from consultation with the director of the Rabies Control Division of the Centers for Disease Control and Prevention.

Continued on next page

Rabies: A vaccination reminder

Rabies vaccinations must be done according to label directions. Any deviation from label directions and from the recommendations in the Compendium of Animal Rabies Control from the National Association of Public Health Veterinarians may not be supported legally. The complete document can be found at: www.nasphv.org/Documents/ RabiesCompendium.pdf. The Centers for Disease Control and Prevention has extensive and specific information for veterinarians on their web site: www.cdc.gov/rabies/specific_groups/veterinarians/index.html.

Other agencies involved in the case included the Grand Forks Public Health Department, the Minnesota Department of Health, the North Dakota Public Health Laboratory, the Minnesota Board of Animal Health and numerous local veterinarians.

Rabies: Titers and Live Animal Tests

Rabies in N.D.

2009 summary

Titer testing was frequently brought up during the investigation of the Grand Forks rabies incident. The generally accepted position is that no known protective titer for rabies in domestic animals is available, as stated in the following excerpt from the compendium of Animal Rabies Control, 2008, National Association of State Public Health Veterinarians:

Rabies Serology: Some "rabies-free" jurisdictions may re-

quire evidence of vaccination and rabies virus antibodies for animal importation purposes. Rabies virus antibody titers are indicative of a response to vaccination or infection. Titers do not directly correlate with protection because other immunologic factors also play a role in preventing rabies, and our abilities to measure and interpret those other factors are not well developed. Therefore, evidence of circulating rabies virus antibodies should not be used as a substitute for current vaccination in managing rabies exposures or determining the need for booster vaccinations in animals.

At least one "live-animal" test for rabies is in development, but is not licensed. The saliva-based test, reportedly has limited value. It appears that a positive test means a positive animal, but a negative test just means that the test did not detect a measurable amount of antibody in the sample.

In 2009, 403 animals were tested for rabies in North Dakota. Sixteen – 12 skunks, a bat, a cat, a dog and a cow – tested positive. Approximately 55,000 people worldwide die from rabies, 95 percent of them in Africa and Asia. World Health Organization

USDA releases order on bovine TB

USDA has released a federal order which alters the way that USDA-APHIS-Veterinary Services will respond to cases of tuberculosis in domestic livestock. At this time, North Dakota's importation requirements for cattle from states affected by TB is unchanged. The federal order will be discussed at the next Board of Animal Health meeting, June 23.The order can be found at www.aphis.usda.gov/ newsroom/content/2010/04/printable/federal_order_tb.pdf.

The following question-and-answer fact sheet is an edited version of one supplied by USDA-APHIS-VS. The orginal can be found at http://www.aphis.usda.gov/publications/animal_health/content/printable_version/faq_bovine_tb_fed_order.pdf

Questions and answers . . .

What does the federal order do?

The federal order removes certain federal movement restrictions and testing obligations from animals not affected by tuberculosis in certain states where TB has been found. This allows producers to conduct business as usual if their herd is unaffected by the disease. Only producers with affected herds would face more stringent requirements.

The federal order is an interim measure meant to minimize the negative impacts of the existing TB program until the regulations can be amended.

To whom does the federal order apply?

The federal order applies only to the following two groups: accredited free states/zones (that have found or may find TB) and modified accredited advanced (MAA) states/zones that have previously been classified as accredited free. Puerto Rico and the U.S. Virgin Islands and all states are included in one of these two groups. However, Michigan, Minnesota and New Mexico have an existing agreement to support each of their split state status. We will continue to apply the requirements of these agreements to the MAA zones of these states since this approach is consistent with our future direction of adapting disease surveillance and management plans to each distinctive set of circumstances.

What does the federal order mean for producers in an accredited free state/zone?

For producers in accredited free states/zones, this federal order will not change much—except if TB is found in the state/zone. Producers with herds affected by TB would face the necessary quarantine and testing procedures.

Depending on the circumstances, a recommendation would be made for testing and removal of affected animals or for depopulation of the herd.

If the disease were found in the state/zone and the herd was not depopulated, the state would not be downgraded to a lower status level, as long as the state can prove it has the appropriate plans in place to prevent the further spread of TB. Producers throughout the state with animals unexposed to the disease should be able to continue their normal practices.

All other regulations from the TB program will continue to be enforced.

What does the federal order mean for producers in a modified accredited advanced state/zone?

Producers in a modified accredited advanced state/zone whose herds are unaffected by TB would regain the ability to move their animals interstate without testing for TB. All other regulations from the TB program will continue to be enforced.

What does the federal order mean for producers in a modified accredited, accreditation preparatory, or nonaccredited state/zone?

The federal order does not apply to these states/zones. Producers will continue to follow the existing TB program regulations applicable to the state's status.

When does the federal order take effect?

The federal order took effect April 15, 2010.

How long does the federal order last?

This federal order is intended as an interim measure until revised bovine TB regulations can be proposed for review and public comment, and final rules issued. APHIS will continue to monitor the effectiveness of this federal order and will re-evaluate it within 2 years unless revised bovine TB regulations have been put in place.

Why is APHIS' Veterinary Services (VS) program taking this action?

The current TB eradication program needs updating, as it does not match the needs of today's producers. The regulations were written when TB was prevalent throughout the U.S. and were effective in drastically reducing the number of animals affected. Today, TB is pretty much eliminated except for sporadic outbreaks.

Revising the entire TB program through rulemaking takes time. To bring about urgently needed changes more quickly, VS issued a federal order to make it easier for producers with herds unaffected by TB in certain states where the disease has been found to move their animals and continue normal operations.

The federal order is consistent with the ideas outlined in the concept paper VS developed from feedback received during a series of listening sessions with producers, stakeholders, and animal health officials in December 2008. VS' proposed action plan also aligns with changes for VS in 2015 by emphasizing prevention and detection.

What is a federal order?

Under the Animal Health Protection Act, APHIS is authorized to prohibit or restrict the interstate movement or importation of animals and other articles as necessary to prevent the introduction or dissemination of any pest or disease of livestock. The Act also provides that APHIS may promulgate regulations, and issue orders, as it determines necessary, to carry out the purposes of this Act.

These orders are generally used in situations where immediate action is necessary. These orders are authorized in section 10416 of the Act (7 U.S.C. 8315).

Does APHIS have the authority to issue federal orders?

APHIS is authorized by the Animal Health Protection Act to issue federal orders as needed to quickly address emerging situations or to make corrections in regulations that are having a significant negative impact on animal health.

Will I have any say in future changes to the TB program?

As USDA and APHIS develop new regulations for the TB program, they will seek input from stakeholders and other interested parties.

What is the TB program?

The cooperative eradication program began in 1917 to eliminate TB from the nation's livestock population. TB was once the most prevalent infectious disease of cattle in the U.S. It caused more losses among U.S. farm animals in the early part of the 20th century than all other infectious diseases combined. APHIS VS works with state animal health officials and producers to test for the disease and to keep it from spreading. TB has been almost eliminated except for sporadic outbreaks. VS is working to update regulations governing the TB program to make it better meet the needs of today's producers.

What is bovine tuberculosis?

Bovine TB is a contagious and infectious disease caused by Mycobacterium bovis. It affects cattle, bison, deer, elk, goats, humans, and other warm- blooded species and can be fatal.

Where can I learn more about the TB program?

For more information about bovine TB and the TB program, please visit: www.aphis.usda.gov/animal_health/ animal_diseases/tuberculosis/.

Disease updates

Tuberculosis:

Minnesota: USDA recognizes Minnesota as having split state status for bovine tuberculosis, with a 6,849-square mile area in the northwest being classified as Modified Accredited and the remainder of the state being upgraded to Modified Accredited Advanced. TB has been found in 27 wild deer in Minnesota. The most recent case was in a 3½-year-old buck identified in late 2009. As of this writing, the North Dakota State Board of Animal Health does not recognize split state status and Board Order 2008-1 remains in effect.

Producers who plan to take cattle, bison, goats, or camelids to Minnesota and return them to North Dakota should contact the BOAH office at (701) 328-2655 for details on re-entry requirements. North Dakota livestock exhibitors are encouraged to only attend Minnesota fairs and shows that require all Minnesota animals be TB tested prior to exhibition. Exhibiting livestock can be a high-risk activity with respect to possible disease transmission. North Dakota animals which commingle with non-tested Minnesota animals may be quarantined for 60 days and tested prior to quarantine release. North Dakota animals offered for sale at Minnesota auction markets may not be eligible for re-entry due to the potential for co-mingling with untested Minnesota animals at the market.

Nebraska and South Dakota: Tuberculosis has been identified in a Yankton County, SD beef cattle herd. This herd had direct ties to a Nebraska herd, so investigations continue in both states.

Texas: Tuberculosis has been identified in a cow from a large dairy in Texas. Herd testing is underway. A negative tuberculosis test within 60 days prior to importation is required to import cattle from Texas to North Dakota.

New Mexico, Michigan, and California are not TB-free, so additional importation requirements are in place for cattle from these states.

Shortly before this newsletter went to press, Kentucky officials announced TB had been detected in that state.

Brucellosis

All 50 states are now considered free of brucellosis in domestic animals. Because brucellosis is present in wildlife populations of the Greater Yellowstone area, North Dakota requires brucellosis testing prior to importation of animals originating from certain counties in Montana, Wyoming, and Idaho. Please check the website or contact the office for more details.

BSE

Surveillance for bovine spongiform encephalopathy continues in North Dakota. The targeted population is cattle exhibiting signs of central nervous disorders or any other signs that may be associated with BSE, including emaciation or injury, and dead cattle, as well as non-ambulatory animals. Owners of such animals should contact Dr. Larry Schuler's office at (701) 250-4210.

Contagious equine metritis (CEM)

Last December, contagious equine metritis was identified in a quarter horse stallion in Kentucky. An epidemiologic investigation has resulted in the identification of 21 additional positive stallions and five positive mares. More than 960 other horses known to have been exposed to an infected horse have been located in the U.S. and Canada. Testing of more than 900 of those exposed horses was negative. Testing of the remaining horses continues. North Dakota has identified one mare that was artificially bred to an infected stallion. This mare has been tested according to the APHIS protocol and is negative for CEM.

CEM is a sexually transmitted disease of horses caused by the bacteria Taylorella equigenitalis. Clinical signs may include a mucopurulent vaginal discharge in up to 40 percent of affected mares, abortion and infertility. Stallions typically show no clinical signs. A chronic carrier state without outward signs does exist. An effective treatment is available, but is very time and labor intensive.

Chronic wasting disease (CWD)

The North Dakota Game and Fish Department reported in March mule deer taken last fall in western Sioux County has tested positive for chronic wasting disease. This is the first time CWD has been detected in North Dakota.

Since 1998, more than 7,600 farmed deer and elk have been tested for chronic wasting disease in North Dakota. More than 16,000 wild deer and elk have been tested.

The Game and Fish Department has targeted the area for increased surveillance.

Equine piroplasmosis

Equine piroplasmosis (EP) is a blood-borne parasitic disease affecting horses, ponies, donkeys, mules, and zebras. The disease is present in South and Central America, the Caribbean (including Puerto Rico), Africa, the Middle East, and eastern and southern Europe. Only the United States, Canada, Australia, Japan, England and Ireland are not considered to be endemic areas. However, EP-infected horses have been found in several states, since 2008, the largest number in Texas and New Mexico. Horses that tested positive for the disease have been quarantined or euthanized, and horses that had contact with infected horses have been tested. USDA's Animal and Plant Health Inspection Service (APHIS) has developed guidelines for managing infected and exposed horses and is working with EP researchers, equine industry partners, and state animal health authorities to develop additional control strategies.

Once infected, an equine can take 7 to 22 days to show signs of illness. Cases can be mild or acute, depending on the virulence of the parasite. EP-infected animals can develop fever, anemia, jaundiced mucous membranes, swollen abdomens, labored breathing, and hematuria or hemoglobinuria. Equine piroplasmosis can also cause roughened hair coats, constipation, and colic. Some animals die from the disease, while others never get sick. In its milder form, EP causes horses to appear weak and show lack of appetite. Horses with persistent EP infections carry the parasites that cause the disease and are potential sources of infection to other horses.

EP is spread by certain ticks, which move the parasites from one horse to another. Recently, EP has been spread via ticks on a small number of premises in close proximity. An on-going investigation is underway to determine the types of ticks involved. At this point, it does not appear that EP infections via ticks have occurred outside the affected premises. Investigations are ongoing to determine how EP was introduced to U.S. horses. Many of the recent cases are suspected to be related to re-use of needles or syringes between infected and uninfected horses. Dental, tattoo, and surgical equipment can also spread disease if they are not thoroughly cleaned and disinfected between uses. In addition, taking blood from an infected horse – even one that appears healthy – and giving it to an uninfected horse as a transfusion would likely move the disease agent between horses. There have been reports during disease investigations of non-veterinarians administering blood transfusions on horses to enhance performance. This should serve as another reminder for horse owners to practice appropriate management and good biosecurity, and to meet all interstate movement requirements.

Trichomoniasis

Most western states now have regulations regarding trichomoniasis, but these rules vary from state to state. In most states, the regulations only apply to mature bulls; however, some states do have regulations for young bulls as well as breeding females. Some states require tests for intrastate movement as well as interstate movements. Although there has been discussion amongst the states as to standardizing the requirements, there has yet to be a consensus on how to do this. North Dakota currently requires that prior to importation, all non-virgin bulls and any bull over 24 months of age test negative to one PCR trich test or three consecutive weekly cultures. Exemptions may be made for exhibition or seasonal grazing with no comingling. There is no exemption for bulls intended for feeding.

Program updates

Animal identification

The National Animal Identification System (NAIS) is no more. USDA announced in February, a new, program for animal disease traceability, called the Animal Disease Traceability Framework (ADTN). The new program will only apply to animals moved in interstate commerce and will be administered by the states and tribal nations. USDA said the program will employ lower-cost technology and will be implemented through federal regulations and the full rulemaking process.

USDA also said it will work with states, tribal nations and industry in the coming months to address many of the details of this framework, and is establishing an advisory committee to address specific issues, such as confidentiality and liability. The State Board of Animal Health continues to work with the North Dakota Stockmen's Association (NDSA) on issues relating to this program.

Since NAIS began, more than 8,730 of the estimated 14,000 premises in North Dakota have obtained a registered premises number. A question- and-answer sheet about the new ADTN is available at www.aphis.usda.gov/publications/ani-mal_health/content/printable_version/faq_traceability.pdf

Don't remove official ID

It is a violation of federal law to remove official identification from livestock.

Any incident of persons removing USDA or Canadian ear tags (including bar code and RFID tags), should be reported it to either Dr. Larry Schuler, the federal area veterinarian in charge at 701-250-4210 (AVIC), or Dr. Susan Keller, the state veterinarian, at (701) 328-2655.

Emergency preparedness and response

The Veterinary Reserve Corps met again this past January. The main presenter was Dr. Tom McKenna of the Wisconsin Veterinary Diagnostic Laboratory, who spoke on foreign animal diseases.

Drs. Allan Hoverson and Margo Kunz have resigned from the corps. Dr. Hoverson is now semi-retired, and Dr. Kunz is working for USDA-APHIS-VS.

New corps members are Dr. Paul Motter, Cooperstown; Dr. Chad Wild, New Salem, and Dr. Lyle Kenner, Linton.

BOAH is moving Reserve Veterinary Corps from contract employees to temporary state employees.

Dr. Jesse Vollmer is the BOAH contact for emergency preparedness.

Scrapie

USDA has set 2012 as the deadline for eradicating scrapie in the U.S. The most recent scrapie flock investigation in North Dakota was completed in August of 2007. The state has been asked to help in this effort by increasing onfarm and market surveillance. Limited funds are available through March 31, 2011 to compensate those submitting samples. Producers should contact the BOAH office if they have sheep that may qualify.

Limited cooperative agreement funds are also available for genotyping. Producers who are interested in participating should contact Dr. Beth Carlson at (701) 328-2655 for more information and to obtain approval and the appropriate forms. In the past, several producers have not been paid or had their payments delayed because the veterinarian did not use the appropriate forms or did not fill the forms out correctly. The veterinarian must use a VS form 5-29 and sheep must be identified using a scrapie tag.

Johne's disease

Funding for testing assistance and filling out the risk assessment is still available.

A sizable amount of educational materials is available for producers, in addition to what has already been sent electronically. Practitioners are encouraged to request materials as handouts for their clients.

Most of the federal employees who worked on the Johne's program have been assigned to other duties, but updated program standards are expected. The new standards should simplify some of the issues of the current program standards. Large herds that test many animals with one or two positive animals will not be as severely downgraded as in the past. The new standards will have a 1 to 6 classification system rather than A to D and 1 to 4. Herds that are in a higher herd status now will be grandfathered into the new statuses at a higher level – for example if a herd is at a level 4 now they will be advanced to a level 5 or 6 depending on length of time at a level.

Many practititioners are using fecal PCR and pooled PCR testing. Some reports indicate animals that were tested negative showed with clinical signs within six months of testeding. Shedding of the organism can be intermittent with higher periods of shed occurring during times of stress. Those testing herds in the spring and attempting to identify and remove infected animals may want to consider fecal testing. Likewise serum testing during times of stress can drive the immunoglobulin levels down. Remember to include bulls in whole herd tests.

Questions regarding the Johne's disease program should be directed to Dr. Jesse Vollmer at (701) 328-2655.

Avian influenza surveillance

BOAH continues to collect samples for avian influenza surveillance. Contact has been made with many domestic and non-traditional bird producers, backyard flock owners and bird exhibitors. Thus far, more than 3,500 samples have been submitted. No low or high path AI cases have been identified. There is no cost for the testing.

Funds may be available to assist with diagnostic workups involving domestic or non-traditional birds. Contact BOAH at (701) 328-2655 for details.

Avian influenza information with links to other AI websites can be found on the BOAH website at: www.agdepartment. com/Programs/Livestock/BOAH/AvianInfluenza.htm.

Foreign animal diseases

Funding was again reduced for the Animal Health Monitoring System-Foreign Animal Disease grant cooperative agreement from USDA-APHIS-VS. Because of this, BOAH will be less able to financially assist unusual disease investigations. However, if you do see anything that looks like it could potentially be a foreign animal disease, other reportable disease, or especially any vesicular lesions, please contact either the state eterinarian or the federal Area veterinarian in charge (AVIC).

Humane complaints

The BOAH continues to respond to complaints of inhumane treatment of animals. All complaints received are investigated either by a local law enforcement official, staff veterinarian, or contracted accredited veterinarian. One individual charged with mistreatment of animals in Burleigh County as a result of an investigation by our office recently pleaded guilty and was sentenced to 12 months in jail, with all but 30 days suspended. Charges are pending in at least one other case in McLean County. Both cases involved livestock.

Anthrax detected

Anthrax was confirmed in a calf from a herd in eastern Sioux County on May 18, the first confirmed case of the disease in North Dakota in 2010.

Seven calves and three cows in the herd had died earlier in the month with varying presentations. Some were found dead; others were down for an extended period prior to death. Because of the history, anthrax was not the only differential. Samples were submitted for testing. After confirmation, the herd veterinarians, Dr. Pat Bierman and Dr. Shawn Bouzis of Mandan Veterinary Clinic, notified area producers and recommended vaccination.

Veterinarians and producers in areas with a history of anthrax should decide if vaccination is appropriate and be watchful for unusual death losses.

Disease reporting

Thanks to a biosecurity grant from the Centers for Disease Control and Prevention, the Board of Animal Health, the NDSU Veterinary Diagnostic Laboratory and the State Department of Health hopes to soon unveil a new electronic disease reporting system.

The system will enable BOAH to receive all disease reports from NDSU electronically, ending the need for daily faxes. The health department will receive general information on zoonotic diseases of concern.

Practicing veterinarians can use the system to search for trends in the state or a specific area. For example, a veterinarian can learn how many cases of leptospirosis in cattle have been reported in Morton County in the past six months.

BOAH staff has access to all information associated with cases, other users will only see generic information to protect producer and veterinarian confidentiality.

Reportable diseases

The North Dakota reportable disease list has recently been updated and is on the BOAH website at www.agdepartment.com/Programs/Livestock/BOAH/ ReportableDiseaseList.pdf.

As a reminder...

The following supplies are obtained from the state office: brucellosis vaccination tags, official USDA silver tags and North Dakota health certificate books.

The following supplies are obtained from the federal office: scrapie tags, tuberculin, EIA forms, TB and brucellosis test charts, brucellosis vaccination certificates and small animal health certificates

N.D. veterinarians to meet

The 2010 North Dakota Veterinary Medical Association convention will be held Aug. 4-6, at the Doublewood Inn in Bismarck. Check the NDVMA website at www.ndvma.com for details.

BOAH e-mail updates

Thanks to veterinarians' complaints of not receiving timely information on disease situations, the BOAH now offers periodic e-mail updates. To get on the list, send an e-mail to tcelley@nd.gov, or call (701) 328-2655.

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Animal Health News

is published by

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Animal Health News

Three join state veterinarian's office

Justin Maddock is the new livestock field investigator for the State Board of Animal Health.

This new position, authorized by the 2009 Legislature, involves public educatation about livestock importation requirements and investigation of possible violations of laws and rules. He also conducts livestock market inspections, assists with investigating complaints of inhumane treatment of animals and maintains equipment.

Justin has a bachelor's degree in animal science from North Dakota State University. He lives near Maddock with his wife Rachel. They have three children, Hailey, Logan, and Kaitlyn, and one on the way. His hobbies are

He is available for speaking engagements on North Dakota import regulations, and can be reached at 701-220-9352.

Two new office assistants, Kathy



Justin Maddock







Hoffman and Kimberly Spear, are

Kathy is a native of Bismarck. She

and her husband, Rob, have four

now working for the board.



Kathy Hoffman



Kimberly Spear

enjoys being outdoors, camping, refinishing antiques and reading.

Kimberly was born and raised on a family farm south of Drake. She graduated from North Dakota State University with a bachelor's degree in agribusiness and a minor in business administration. Her interests include working outside with animals, garden-

children and two cats. She is a graduate of Bismarck State College. Kathy ing, reading, and riding horse.

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