

Unified Anthrax Recommendations for MB, MN, ND, and SD.
Last Updated May 1, 2006
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Intent:

This document is intended to provide basic unified recommendations for the States of Minnesota, North Dakota, South Dakota and the province of Manitoba. They are not intended to supersede or replace existing regulations and policies. These recommendations are intended to educate the public and prevent cases of anthrax from occurring, and if they do occur offer recommendations to protect public and animal health.

There are differences between US and Canadian policies. Consult your local authorities.

Timeline:

Public service messages should start at least 30 days prior to cattle being turned out onto range and pasture settings for the 2006 grazing season. Therefore, these recommendations should begin “airing” by March 1, 2006. Education efforts directed at practicing veterinarians should also begin by March 1 with reminders beginning June 15. Veterinarians should also be educated in sample collection, submission and correct vaccination and antibiotic treatment protocols. Diagnostic laboratories should be advised on appropriate “anthrax kits” used for collecting and transporting samples.

The problem:

Spores are the problem with anthrax. They remain viable in the soil for many years. The ranges given are 50 – 250 years. There are two key areas to consider when preventing future anthrax outbreaks. One, vaccinate in endemic areas to prevent any more cases of anthrax. Two, minimize spore production and spread by burning anthrax carcasses as quickly as possible whenever possible.

Vaccine:

At present, there is only one anthrax vaccine licensed in the United States and Canada. This non-encapsulated live culture anthrax spore vaccine is manufactured by the Colorado Serum Company (www.colorado-serum.com). Administration of this vaccine may be governed by local regulations.

As a preventative measure, animals from anthrax endemic areas should be vaccinated approximately four (4) weeks prior to the time the disease usually appears.

Colorado Serum’s recommended dose is one (1) ml. injected subcutaneously in the neck. Anecdotal evidence indicates that immunity can develop in five (5) days. It is usually

protective in 8-10 days. Colorado Serum also recommends a second “booster” vaccination two (2) to three (3) weeks after the first dose in heavily contaminated areas.

Vaccinated animals should not be slaughtered for 42 days after last dose of anthrax vaccine. There is no withdrawal time for milk.

Colorado Serum Company has a package insert which mentions vaccinating horses in the brisket (pectorals) as an alternative, to help minimize the potential of an adverse local reaction. Anecdotal evidence from the field indicates that dividing the dose in half and giving a half dose on each side of the neck may also help minimize local injection site reactions in horses.

Vaccination for prevention:

All herds with a history of anthrax infection within the past 10 years and those herds within six miles (ten kilometers) should be vaccinated or revaccinated for the prevention of anthrax for the year 2006. All susceptible animals on these herds should be vaccinated. Susceptible animals include cattle, horses, mules, sheep, goats and pigs. Off label use of the vaccine should be considered for bison, and farmed elk and deer. Any off label use of the vaccine must be discussed with your veterinarian.

Monitoring and Surveillance:

Any unexplained deaths of susceptible domestic and wild animals should be investigated promptly by an authorized veterinarian. Anthrax is a public health risk to people. If possible, do not move the carcass. Measures should be taken to prevent the carcass from being opened (do not overlook scavengers). Anthrax is a strict anaerobe and will form spores when in contact with oxygen.

Suspected cases of anthrax must be reported to your local veterinarian.

The risk of a person contracting anthrax from an animal or animal carcass is low. Veterinarians have the highest risk of contracting the disease because of their contact with carcasses.

Sample collection:

The preferred biological sample for anthrax is a blood sample. Any samples should only be collected by a veterinarian. If whole blood is not available there are a few other samples that can be taken. They include a blood soaked swab taken from blood-tinged fluids exuding from the anus, vulva, nostrils or mouth, and placed in a sterile, sealed tube; or exudate-contaminated soil placed in a sterile, sealed tube or plastic leak-proof container; or as a last resort a swab soaked with fluid from the spleen if the animal has been eaten by predators or if a necropsy was performed. Submission of solid tissues from organs is strongly discouraged unless no other sample is available.

Vaccination during an outbreak of anthrax:

If animals have been previously vaccinated, revaccination options should be discussed with your veterinarian.

If animals are unvaccinated, all susceptible animals must be vaccinated. A booster dose in two (2) to three (3) weeks is highly recommended.

During severe outbreak conditions in addition to vaccination, exposed susceptible animals may be treated with antibiotics. The decision to use antibiotics in conjunction with vaccination must be made in consultation with the owner, their veterinary practitioner and regulatory authorities.

Adjacent herds within six miles (ten kilometers) of a case of anthrax should be encouraged to vaccinate. This recommendation is based on the likelihood that the soil type, topography and other associated ecological factors may be similar and therefore conducive to the propagation of anthrax.

Quarantine:

In the US each state has its own rules on quarantine of herds affected by anthrax. In Canada the CFIA determines the rules regarding the length of quarantine of herds affected by anthrax. Please contact your local authorities for quarantine information in your state or province.

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Carcass disposal:

The preferred method of disposal is burning. The goal of burning is to destroy as many spores as possible to decrease the likelihood of disease propagation in later years. Deep burial will not destroy the spores.

Deep burial is allowed, but not recommended. Carcasses should not be moved. Carcasses should be incinerated very close to their point of discovery. Directions for burning carcasses can be found at: www.ag.ndsu.edu/pubs/animhealth.html

If immediate burning or deep burial is not possible, your state or provincial CFIA veterinarian, in association with provincial authorities, can advise you on other appropriate procedures.

Indemnity:

Each state and province has its own regulations, policies and procedures governing indemnity. Please contact your state or provincial CFIA veterinarian for more details.

Information Sources:

Colorado Serum Company
www.colorado-serum.com

North Dakota Information
www.ag.ndsu.edu/pubs/animhealth.html
www.agdepartment.com/Programs/Livestock/BOAH/BOAH.html

South Dakota Information
www.state.sd.us/aib/Anthrax%20page.htm
<http://vetsci.sdstate.edu/vetext/>

Canadian Food Inspection Agency

www.inspection.gc.ca/english/anima/heasan/disemala/anthchar/anthchare.shtml

Office of Internationale Epizootics (OIE)

www.oie.int/eng/normes/Mcode/en_chapitre_2.2.1.htm

World Health Organization (WHO)

www.who.int/csr/resources/publications/anthrax/WHO EMC_ZDI_98_6/en/

Maps:

Manitoba

www.gov.mb.ca/agriculture/livestock/anhealth/jaa02s00.html

Minnesota

www.bah.state.mn.us/diseases/anthrax/Anthrax%20Map%208-23-05%20pd.pdf

North Dakota

www.agdepartment.com/Programs/Livestock/BOAH/2005Anthrax.pdf

South Dakota

www.state.sd.us/aib/Anthrax%20Map%2020051122.pdf