

Anthrax

Animal Health and Welfare Management



Anthrax is a disease that quickly kills cattle, sheep, horses and other grazing livestock. It occurs regularly in Manitoba and it is important to vaccinate your livestock yearly to prevent the disease.

Cause and Clinical Signs

Anthrax is caused by the bacteria *Bacillus anthracis*. The bacteria form spores that are released into the environment and remain in the soil for decades. Conditions such as flooding, drought and recent digging can bring spores into close contact with grazing animals. Large biting flies may also spread the disease, but only do so rarely. Once animals ingest the spores, fatal toxins are released.



Microscopic view of the bacteria *Bacillus anthracis*

Anthrax can affect a wide range of animals, including humans. However, it most commonly affects cattle, sheep, goats, horses, bison and elk. Outbreaks usually occur in the middle of the summer, especially when it is hot and dry after a period of flooding or heavy rain. Excavation has also been identified as a risk as it brings buried spores up to the surface, where animals can ingest them. Cases of anthrax can occur in winter, when animals eat feed that is contaminated with anthrax spores. The most common indicator is the

unexplained sudden death of one or more animals. The animals may have swollen body parts or blood oozing from body openings, such as the eyes, ears, mouth and anus.

What to do

Call your veterinarian immediately if you find dead animals. Anthrax can be treated with antibiotics if detected early, but animals usually die quickly from the disease. Do not move or open the carcass, because it can further spread the spores and infect other animals. While taking appropriate safety precautions, plug all the animal's body openings with paper towels to prevent body fluids from leaking. Wrap the head with heavy plastic and fasten it with tape or rope behind the ears. Cover the carcass to prevent wildlife and other animals from touching it.



Prevention and Management

Vaccination against anthrax is very effective. Animals in high risk areas should be vaccinated every year, about a month before moving them to pasture. High risk areas are those areas within 10 kilometres of where any case of anthrax has occurred in the last 15 years. In Manitoba, these areas are located in the southeast, southcentral and Interlake regions. Producers in these areas should talk to a veterinarian about vaccinating for anthrax.

Other practices, such as overgrazing, using recently flooded pasture and improperly assessing and disposing of dead animals can increase the possibility of exposure to anthrax spores. These practices should be avoided.

Transfer to Humans (Zoonotic)

Anthrax is a public health risk for humans, but can be treated with antibiotics. Fortunately, human cases of anthrax from exposure to infected livestock are very rare. Always wear gloves when handling carcasses. If you have been in contact with a carcass or fluids from a carcass that is diagnosed with anthrax, contact your doctor.

Reporting

Veterinarians must notify the Chief Veterinary Office (CVO) of Manitoba if anthrax is suspected. The Canadian Food Inspection Agency (CFIA) no longer responds to anthrax cases, but the CVO will work with producers and veterinarians in responding to suspected cases, and report positive animals to the CFIA on behalf of the veterinarian. The CVO will assist the responding veterinarian to manage the risk and ensure public and human health is maintained.

To report a suspected case of anthrax, contact the Manitoba Agriculture Chief Veterinary Office at **204-945-7663** during business hours, or **204-470-1108** after hours.



Photos provided by the Canadian Food Inspection Agency