

## Anthrax: What to Know

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A case of Anthrax has recently been diagnosed on a cattle ranch in northeastern Colorado. Upon hearing this, many livestock producers may have questions about it. Anthrax is not one of the livestock health issues that people readily think about. The last time it was diagnosed in Colorado was thirty-one years ago.

An anthrax case requires the “perfect situation” to occur. First, the *Bacillus anthracis* spore has to be present in the soil. The soil needs to have a neutral or slightly alkaline pH; the appropriate soil environment can sustain the anthrax spores indefinitely. Additionally, soil calcium needs to be within a specific range. Next, there needs to be an environmental stressor that initiates spore activity. This can range from extremely heavy rains to our current situation, severe drought. Soil disturbances, such as dirt excavation, erosion, or extreme livestock treading, can also enhance the opportunity for spore exposure and subsequent anthrax infection.

Any warm-blooded animal (including humans) can contract anthrax. Cattle and sheep tend to be more susceptible than other domesticated livestock. The signs can vary depending on both the species infected as well as the mode of transmission. Animals can ingest or inhale the anthrax spores. They can also become infected cutaneously through skin cuts or insect bites. In some outbreaks the first sign may be finding dead animals, as anthrax can kill quickly in acute cases. Other signs can include swelling around the head, muzzle, or tongue. Staggering, tremors, respiratory difficulty, and collapse may all be seen in less acute cases. In cutaneous cases, the area of entrance may be hot and swollen initially and later become cold and lose sensitivity. Dead carcasses resulting from anthrax infection may have bloody discharges from body openings. **DO NOT HANDLE THIS DISCHARGE IF PRESENT!** Rapid bloating and decomposition of the carcass may also occur in anthrax cases.

If you suspect an anthrax outbreak, you should contact your veterinarian immediately. Do not handle the carcass or any discharges from the carcass until advised to do so. The infected animal becomes a reservoir for the *Bacillus anthracis* organism and when exposed to oxygen the organism is readily sporulated and hazardous. An autopsy is **NOT** advised in anthrax cases. Once advised to dispose of the carcass, those doing so should wear protective apparel and no skin should be exposed to the carcass or its discharges. Your local veterinarian and the State Veterinarian’s office will advise you of protective measures once a case is diagnosed. Affected carcasses should be either burned on site or “deep” buried. The area will also need to be disinfected. The State Veterinarian’s office will consult with you on this. You will not want to drag the carcass off, as this can spread the range of the anthrax spores and contaminate a larger area for both current and future exposures.

The Cattle Producer’s Library contains an anthrax factsheet that can be accessed at <http://www.ext.colostate.edu/pubs/ag/anthrax-guide.pdf>. Additionally, the State Veterinarian’s office has posted information on their website at <http://www.colorado.gov/ag>. Again, if you suspect an anthrax case on your operation, do not hesitate in contacting your local veterinarian immediately. Be careful to protect yourself and other people from anthrax exposure. If you have other questions about anthrax, you can contact your Colorado State University Extension office, the Colorado State Veterinarian’s office, or your local veterinarian.