

Anthrax Hits Texas
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Several cases of anthrax have been reported this summer in deer and livestock on ranches in Edwards, Uvalde, and Val Verde counties in southwest Texas, and there are suspected cases in three additional counties. As of July 7, confirmed cases have been diagnosed in three white-tailed deer, two horses, one fallow deer, and one cow. The actual number of cases undoubtedly is much higher than the number confirmed, as there are estimates that hundreds of animals have died. Anthrax occurs worldwide and tends to recur in certain locations. This area, bordered by Uvalde, Ozona, and Eagle Pass, is where anthrax historically has occurred in Texas.

Anthrax is caused by the bacterium *Bacillus anthracis*. The bacteria form spores that are highly resistant to temperature extremes, chemical disinfectants, and dessication. Spores can lie dormant for years in soil and organic matter. Anthrax outbreaks generally occur when heavy rains or floods are followed by a drought, especially in areas that have a high amount of organic matter in the soil and an alkaline pH. Herbivores are presumed to become infected by ingestion of contaminated food and water. Outbreaks decline with the arrival of cool weather.

Anthrax can affect virtually all mammals. Clinical signs in herbivores include fever, respiratory distress, staggering, disorientation, and sudden death. Carnivores may develop edema of the face and neck and swollen lymph nodes. Herbivores that die from anthrax usually exhibit rapid bloating and bloody discharges from orifices. Characteristic necropsy findings include dark, unclotted blood and a markedly enlarged, hemorrhagic spleen. Isolation of *B. anthracis* is necessary to confirm an anthrax infection.

There are several human forms of anthrax, depending on the route of infection, the most common being the skin form. Minimizing contact by wearing gloves and long-sleeved clothing when handling infected animals, carcasses, or animal by-products decreases the chance of infection. Ingesting or inhaling anthrax spores can also infect humans and may result in the life-threatening disease. Anthrax in humans is treatable with antibiotics.

The best control methods for anthrax in livestock are vaccination and prevention of environmental contamination with anthrax spores. Carcasses of animals that die from anthrax contain millions of infectious spores, so field necropsies should not be performed. Animals that have died from anthrax should be burned, along with the animal's bedding, manure, and surrounding soil. Wild animals and pets should be kept away from the carcass, and livestock should be moved to a different pasture. Outbreaks of anthrax usually are over by hunting season, but it is always advisable to only harvest and consume healthy looking animals. (Prepared by Elizabeth Embree, Virginia-Maryland Regional College of Veterinary Medicine).