## LIVESTOCK HEALTH FOLLOWING FLOODING

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Following a flood event like what has recently been seen in Colorado, there are a lot of things that livestock owners may have to contend with. A lot of these problems are ones that livestock producers will readily think about. What fences are left? Where can I move my livestock to? Where will I find feed? Etc. What follows are some animal health issues that producers may not immediately consider but will want to be aware of and pay extra attention to monitoring, if their livestock were impacted by the recent floods.

Keep in mind that a lot of debris will come down a flood swollen river. Some of these items will be left on agricultural lands as the waters recede. Many different items can cause injury to livestock: wires, metal pieces, boards with nails, etc. You may want to consider giving your animals a tetanus vaccination to prevent lockjaw, particularly if the animal(s) have puncture wounds or cuts.

Rattlesnakes will be displaced in a large scale flood. They float/swim along with the debris and will be very unhappy and looking for a dry location. When you are evaluating livestock for injuries, consider the potential of snake bites.

Several diseases are more prevalent following flood conditions. In particular, the clostridial diseases have a tendency to rise following floods. Spore-borne diseases like anthrax, leptospirosis, and blackleg are known for developing outbreaks on flood impacted lands. The spore bacterium are pulled from the soil and spread out via the flood waters. As the water recedes, the spores settle on the land and forage. This makes for easy access to the animal through ingestion, inhalation, or via wounds. Another less likely but still potential threat is malignant edema. Allow thirty or more days of sun to "cook" pathogens before turning livestock on to the flood impacted land. If you have livestock that become sick or die within a day or two of either being in flood waters or entering land that had recently been impacted, you should have your veterinarian examine the animals or their carcass.

Inflammation can also be a serious problem among livestock that have been flood impacted. Monitor animals for foot rot. Livestock that are in water or muddy conditions for an extended period of time can develop softening of the tissue around the foot. This fact, combined with the greater potential of pathogens on flood impacted lands, can lead to more lameness and foot rot inflammation than would normally be expected. Mastitis infections of the udder can also increase following a flood event. This happens when livestock wade in muddy flood waters deep enough that the udder is submerged; allowing the pathogens to enter the body through the udder. It can also occur with livestock lying in pathogen infested mud following the flood event. Often times, it will be coliform-type organisms that are associated with mastitis.

Erysipelas may present itself among swine and turkeys that were impacted by flooding. This disease can also linger in confinement buildings after the flood has receded and the buildings have dried out. Swine and turkeys should be vaccinated against erysipelas before being allowed in a barn that has previously been flooded.

Botulism is sometimes seen among chickens and horses following flood events. In the case of poultry, the birds are infected by the organism through scavenging on rotten vegetables or decaying carcasses. Horses encounter the infective organism by drinking stagnant flood waters or eating spoiling feeds that were under flood waters. Wet feeds and wet litter following a flood can also lead to brooder pneumonia among poultry.

This is just a small sampling of some of the health issues that livestock producers need to be aware of following a flood event. If you want more information on any of these diseases you can contact your local Extension office or your veterinarian. As always, if you believe your livestock are suffering from a health ailment, you should contact your veterinarian as soon as possible.