



NEWS RELEASE – March 4, 2020

Washita County Agriculture News

Rabies in Farm Animals

In 2019 the state of Oklahoma had 23 confirmed cases of rabies. The majority of the cases were found in skunks, but 2 of the cases were in cattle. When most people think of rabies, they have visions of a foaming at the mouth, snarling, aggressive dog that attacks everything in sight. However, in farm animals, this is not always the case. Many veterinarians at some time in their career probably receive a phone call that goes something like this. “Doc, I found this cow away from the herd yesterday. I got her to the lot. She seems a little depressed. She kept straining like she was constipated. She was having trouble swallowing and was a little bloated. My neighbor and I opened her mouth, but we could not find anything. We both ran our arms down her throat, but we could not find anything. I need you come out and take a look at her.” Unfortunately, many producers have been exposed to rabies because they do not recognize that this animal was infected with the “dumb” form of rabies. Not all animals with rabies have the “furious” form of the disease.

Rabies is a virus in the genus *Lyssavirus* in the family *Rhabdoviridae*. The virus does not survive in the environment for very long. Most disinfectants will kill the virus. The disease is fatal to animals and humans. On very rare occasions, people have survived the disease. In experiments, animals have survived the disease. Surviving rabies may occur in wild animals as well. Domestic animals are infected with the virus from wildlife reservoirs. In Oklahoma, the most common reservoir is the skunk. In the world, the estimation is that 50,000 to 60,000 people die each year of the disease. The few people that die of the disease in the United States are usually unaware that they have been exposed to the virus.

In order to be infected with the virus, an animal must come in contact with the saliva from a rabid animal. This normally occurs from a bite wound. The virus may gain entry by saliva coming in contact with a mucous membrane or a break in the skin. Aerosol transmission has been reported in laboratories and bat caves, but this is very rare. Once in the body, the virus replicates in the muscle tissue. Next, the virus enters the peripheral nerves and will be transported to the spinal cord and to the brain. Once in the brain, the virus will enter the systemic circulation which includes the salivary glands. The timeline for all this to take place is variable. It depends on how much virus is initially transmitted to the animal and the location of the bite wound. If a large number of viruses are transmitted, the incubation time will be shorter. If the bite wound is close to the head, it will take less time for the virus to get to the brain. If the bite wound is on the foot, it may take several months for the virus to get to the brain.

The furious form of the disease is the most recognized by people. The animals with this form will be restless, wander, vocalize, drool, and attack anything in sight. These animals are not afraid of anything. Nocturnal animals with rabies are often seen in the day. They will have convulsion in the late stages of the disease. They usually die in 4 to 8 days after showing clinical signs.

The paralytic (dumb) form of the disease is a progressive paralysis. The throat becomes paralyzed and the animal cannot swallow or vocalize normally. Cattle might have a high-pitched bellow or attempt to bellow with no sound being produced. Due to the progressive paralysis, rumination will cease which may result in bloat. They also may appear to be straining to urinate or defecate. These animals will have problems walking and will become recumbent. This form is often mistaken for a digestive problem. Some producers may think the animal is aborting or has a urinary problem. These animals usually die in 2 to 6 days from respiratory failure.

When an animal has neurological signs, rabies should be suspected. Producers should avoid contact with the animal and contact their local veterinarian. If the veterinarian diagnosis rabies, the brain will need to be submitted to a laboratory to confirm the diagnosis.

Animals that are suspected of having rabies are not treated. The danger that the animal poses to humans is not worth the risk of treatment. Also, the disease is almost always fatal.

Rabies can be prevented by vaccination and by preventing unnecessary exposure of domestic animals to wildlife. All pets should be vaccinated. Obviously, vaccinating a large herd or flock of animals would not be cost effective. However, animals that are in constant contact with humans such as show animals or horses should be vaccinated. If a producer has a family milk cow, she would be a good candidate for vaccination. Preventing contact with wildlife is difficult but paying close attention to sanitation should discourage wildlife from entering areas where animals are kept.

Rabid animals are dangerous. If animals have the furious form, they may attack and injure producers. Animals with the dumb form of the disease can infect unsuspecting producers. Anytime an animal is suspected of having rabies a veterinarian should be contacted. As stated earlier, most people who die of rabies in the US are not even aware that they have been exposed. For more information on rabies, please visit with your local veterinarian or Oklahoma State University County Extension Educator.

For more information contact Greg Hartman Beckham/Washita County Extension at 580-928-2139 or 580-832-3356

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**Please RSVP by calling Greg Hartman at Washita County OSU Extension at 580-832-3356 or
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