

Anaplasmosis May Be More Common, Widespread This Year

LITTLE ROCK, ARK.

An abundance of insects borne by an early spring could mean an earlier-than-normal occurrence of a sometimes fatal cattle disease called anaplasmosis, said Tom Troxel, associate head-animal science for the University of Arkansas System Division of Agriculture.

Anaplasmosis is transmitted from animal to animal by biting insects such as horseflies and stable flies and ticks. It can also be spread by contaminated needles or surgical instruments such as dehorners, castration instruments or tattoo instruments. The disease is typically age related, with severe cases affecting mostly older animals.

"Outbreaks generally occur in late summer and early fall, but because of the mild winter and early summer, cattle producers should be on the lookout for possible early occurrences of anaplasmosis," Troxel said.

As of May 21, no cases had been reported in Arkansas according to state livestock and poultry officials.

The incubation period is 21 to 45 days, with an average length of 30 days. Once the red blood cells become infected, the organism replicates itself in order to infect more red blood cells. During this period, the infected animal shows little or no signs of illness.

"At some point, the infected animal's immune system begins to respond and attempts to attack the invader," he said. "When this occurs, the immune system destroys the pathogen, but also destroys the infected red blood cells. As a result, the signs of clinical anemia will appear."

Early clinical signs include a rectal temperature of 104 degrees Fahrenheit to 107 F, decreased appetite, pale mucous membranes, lethargy, a decrease in milk production and weakness. As the disease progresses, other signs may be noted such as weight loss, yellowed mucous membranes, constipation, agitation, abortion and death.

Death is due to a large number of red blood

cells being lost. With no red blood cells to move oxygen to tissues, the animal dies of anoxia.

Anaplasmosis is mild in calves less than one year of age. Cattle 12 to 24 months of age can show acute signs of the disease, but it is rarely fatal.

However, animals that are two years and older will show acute signs of the disease, and mortality rates may be as great as 50 percent if animals are left untreated.

"Some cattle that do survive without treatment may become carrier animals for this disease," Troxel said. "They will serve as a reservoir and be an underlying source of infection for other susceptible cattle in the herd. Animals in the carrier phase usually show no clinical signs and rarely become ill a second time with the disease."

Diagnosis for this disease can be made from consistent clinical signs as well as blood staining techniques.

Prevention of this disease can incorporate many factors. Insect control can be difficult, but pesticide applications to the herd may limit the number of potential vectors. Feeding chlortetracycline at the rate of 0.5 mg-per-pound of cow body weight during the vector season will help prevent transmission of anaplasmosis. CTC may be included in medicated feed, mineral mix or feed blocks.

"It also is important to be mindful of contaminated needles or instruments," Troxel said. "When performing herd work, change needles often, and keep castration knives, dehorners or tattoo instruments in disinfectant between uses. Vaccines are also available on the market to help with the control and prevention of this disease."

Contact your veterinarian for additional prevention or treatment protocols. For more information about cattle production, contact your local county Extension office or visit www.uaex.edu. Δ