Information Sheet

January 2024

Bovine Babesiosis

What is bovine babesiosis?

- Bovine babesiosis is caused by *Babesia bovis* and *Babesia bigemina.* These are protozoal blood cell parasites that mainly infect cattle.
- Other wild and domestic animals have shown to be infected by PCR (testing for DNA) but do not seem to be sources (reservoirs) for new infections. These may include bison, water buffalo, nilgai, and some species of deer.
- Bovine babesiosis has many other names including Texas fever, Redwater, Tick Fever, and Cattle Fever.
- *B. bovis* and *B. bigemina* are transmitted by ticks, *Rhipicephalus* (*Boophilus*) *microplus* and *Rhipicephalus* (*Boophilus*) *annulatus* (known as Cattle Fever Ticks (CFTs)). Transmission may also happen by re-use of needles or during transfusions.
- Signs of infection can be seen 2-3 weeks after a tick bite. They normally include fever, blood cell death (hemolysis), and anemia. Other symptoms/signs can include decreased appetite, weakness, neurological and respiratory distress, and abortion.
- Symptoms such as anemia, may cause mucous membranes to turn yellowish or pale in color.
- Urine may turn dark or red (Redwater). A diagnostic test is required to confirm the presence of these pathogens.
- Cattle of all ages can be infected and become ill, and disease severity usually increases with age. Many animals become lifetime carriers after infection.
- *B. bovis* and *B. bigemina* can be treated by using antiparasitics.
- *B. bovis* and *B. bigemina* do not seem to be human pathogens. CFTs will bite but do not normally feed successfully on humans.

Distribution of Bovine Babesiosis

- Throughout the world, bovine babesiosis can be found in tropical and subtropical areas. In these areas, it can be a major constraint to cattle production.
- Bovine babesiosis was once enzootic throughout the southern United States. Efforts to eradicate the ticks have pushed CFT (and possible babesiosis) to a permanent quarantine zone on the border of Mexico in South Texas. Babesiosis and CFT are endemic in Mexico.

Pasture Management and Tick Control

You can help control the spread of bovine babesiosis by:

- Modifying tick habitat - keep grasses cut short and remove weeds and brush from grazing areas.

- Restricting cattle from grazing in heavily tick-infested pastures to reduce tick exposure.
- Routinely using Environmental Protection Agency (EPA) approved insecticide treatments (products that kill ticks and flies) on animals, vegetation, and equipment. Use Food and Drug Administration (FDA) approved drugs for tick management on animals.
- Regularly inspecting cattle for ticks. Ticks can be found especially in the ears, under the tail area, between the hind legs, and in udder skin folds.
- Closely checking the health and tick status of all newly introduced animals.

Biosecurity practices

- Protect yourself from ticks or flies by using insect repellents containing DEET, picaridin, IR3535, oil of lemon or eucalyptus, para-menthane diol, or 2-undecanone.
- When handling livestock, do not use farm medical instruments like needles on multiple animals. Thoroughly clean and sanitize tools and devices before and after use on each animal.
- Clean, treat, and sanitize equipment before moving off CFT infested premises.
- If you suspect *Babesia* infection, experience livestock losses, or observe other conditions such as signs of anemia, report these to a local veterinarian immediately.

Report Suspicious Cases

Suspect cases should be reported to your State Animal Health Official.

For more information, contact:

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