

Information Sheet

January 2024

Bovine Anaplasmosis



What is bovine anaplasmosis?

- Bovine anaplasmosis is caused by *Anaplasma marginale*. *A. marginale* is a bacterial blood cell parasite that can infect wild and domestic animals including cattle, bison, water buffalo, African antelopes, and some species of deer.
- *A. marginale* is transmitted by many species of ticks, biting flies, and by re-use of blood contaminated equipment such as needles, dehorning instruments, or castration instruments.
- Cattle of all ages can be infected and become ill, but disease severity often increases with age. Once infected, many animals become lifetime carriers of the bacteria.
- Signs of infection include fever, weakness, weight loss, decreased milk production, constipation, increased aggression, difficulty breathing, and abortion.
- Symptoms, such as anemia, may cause mucous membranes to turn yellowish or pale in color. However, the urine is not usually red as in babesiosis.

- Signs/symptoms typically appear a month after infection but can occur between 7 and 60 days after infection.
- Diagnostic testing is required to confirm the presence of the pathogen. C-ELISA is a sensitive testing option, but PCR may also be used.
- There is no evidence *A. marginale* infects people.
- *A. marginale* can be treated using antibiotics such as tetracycline; however, even with treatment, cattle may remain carriers.

Distribution of bovine anaplasmosis

- Throughout the world, bovine anaplasmosis is found in tropical and subtropical areas. In these areas, it can be a major burden to cattle production.
- In the United States, bovine anaplasmosis is endemic throughout the south, several midwestern states, and western states and has been reported in most states.

Pasture Management and Tick Control

You can help control the spread of bovine anaplasmosis by:

- Modifying tick habitat: keep grasses cut short and remove weeds and brush from grazing areas.
- Restricting cattle from grazing in wooded areas or heavily tick-infested pastures to reduce tick exposure.
- Closely examining the health status of newly introduced animals.



- Regularly using Environmental Protection Agency (EPA) approved insecticide treatments (products that kill ticks and flies) on animals, vegetation, and equipment.
- Regularly inspecting cattle for flies and ticks. Ticks can be especially found in the ears, under the tail area, between the hind legs, and in udder skin folds.
- Treating animals for ticks with either EPA approved pesticides or Food and Drug Administration (FDA) approved treatments. Make sure to follow label instructions.
- Reducing fly habitat by sanitation practices such as cleaning out hutches/stalls/pens/feeding lanes/bunks on a regular basis, properly managing manure, and securing storage of feed.

Biosecurity Practices

- Protect yourself from ticks and 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 OB sleeves and needles on multiple animals. Thoroughly clean and sanitize equipment and devices before and after use on each animal.
- If you suspect *Anaplasma* infection, experience livestock losses, or observe 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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