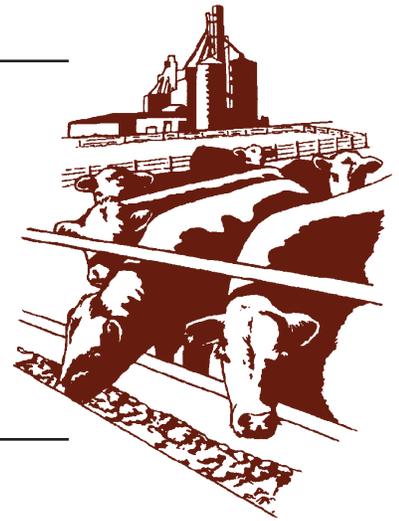


Beef Cattle Handbook



BCH-3515

Product of Extension Beef Cattle Resource Committee
Adapted from the Cattle Producer's Library

TEME in Feeder Cattle

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Thromboembolic meningoencephalitis—also called TEME and “Brainer”—is a severe disease that affects the brain of range and feedlot cattle. It is caused by the bacteria *Haemophilus somnus*, an organism that also can cause pneumonia, arthritis, and abortion in cattle.

TEME usually occurs during the colder fall, winter, and spring months since factors such as stress associated with weaning, shipping, and handling often tend to precipitate outbreaks. Cattle ages 6 months to 2 years old are susceptible. Weaners and yearlings tend to be most susceptible, however.

Clinical Signs

In the feedlot, affected cattle are commonly referred to as “brainers” because most signs are the result of central nervous system disturbances. The condition is usually rapid in onset. The victim may be found dead or unable to rise, with no previous signs of illness. In cases where the disease progresses less rapidly, abnormal postures and gait are noticeable. The animal may act stiff or lame and exhibit posterior incoordination or weakness. Occasionally, periodic convulsions occur. Once an animal goes down, it usually dies in a few days. Depression in down animals is the rule, and many cases they are comatose. If alert, TEME cases are aware of their surroundings but are helpless.

Early in the course of the disease, affected animals will have temperatures of 105° to 107°F. However, these temperatures often return to the normal range as the condition progresses. Positive diagnosis of TEME requires the removal of the brain by a veterinarian and examination by a diagnostic laboratory. TEME can be

easily confused with listeriosis and polio.

Treatment

Successful treatment requires early recognition of disease. Individual cases respond to high levels of antibiotics, particularly oxytetracycline. Even under the best of conditions, however, a 50 percent recovery rate is considered good for this disease. In heavy outbreaks, adding high levels of either oxytetracycline or chlortetracycline (in crumbles) in the ration will help to reduce the incidence.

Prevention

A vaccine composed of killed *Haemophilus somnus* bacteria is available for prevention of TEME. Two inoculations are required, with at least a 21-day interval between inoculations. Annual revaccination is necessary. It is best to vaccinate weaners at weaning time or at the beginning of the feeding period. The vaccine is not effective in the face of an outbreak.

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This publication was prepared in cooperation with the Extension Beef Cattle Resource Committee and its member states and produced in an electronic format by the University of Wisconsin-Extension, Cooperative Extension. Issued in furtherance of Cooperative Extension work, ACTS of May 8 and June 30, 1914.

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