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Cooperative Extension South Dakota State University

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Sporadic
Bovine
Encephalomyelitis

(BUSS DISEASE)

Cooperative Extension Service: South Dakota State University and U. S. Department of Agriculture
Sporadic bovine encephalomyelitis (Buss Disease) is an acute generalized infectious disease of cattle. It is characterized by fever, weakness, and incoordination. There is inflammation in the chest cavity (pleuritis), the heart sac (pericarditis), and the abdominal cavity (peritonitis), as well as in the brain and its membranous coverings.

Once the susceptible animal is infected, the infection spreads throughout the body by way of the bloodstream to all of the organs and the central nervous system.

**CAUSE AND OCCURRENCE**

The disease is caused by an agent of the psittacosis-lymphogranuloma group. It has been reported from many states, particularly midwestern areas, also from several foreign countries, thus indicating the widespread occurrence of the disease.

Sporadic bovine encephalomyelitis occurs in all breeds and sexes, and while the disease may be found in adult cattle, animals under 2 years of age are most susceptible. In South Dakota research, the age incidence involving 1774 cattle from 21 affected herds showed 269 animals or 15% were affected. Most cases were encountered during spring and early summer months.

The infectious agent can be killed outside the body by .3% quaternary ammonium disinfectants, 2% sodium hydroxide, and 5% cresol compounds. It will survive for several years when frozen at -20° F.

**SYMPTOMS**

Under natural conditions the length of the incubation period is unknown but probably is from 4 to 27 days. An early sign is a rise in body temperature ranging from 105° to 107° F. This may last from 7 to 10 days. The animal may eat for the first few days but then the appetite lags and the animal becomes dehydrated.

Stiffness, incoordination, and depression are early symptoms shown by affected animals. Many animals prefer to lie down. When walking, weakness of the legs and “knuckling over” in the fetlocks occur. The hocks and stifles joints may become swollen and tender.

Circling has been described in a few cases, but pushing, rubbing, circling, and excitability, which are usually seen in other diseases of the central nervous system, are generally not seen in sporadic bovine encephalomyelitis.

Symptoms involving the digestive and respiratory systems are not of diagnostic significance; however, a clear nasal discharge and cough or diarrhea may be seen in some cases.

In one study of 19 herds involving 1602 cattle, the average incidence was 12.3% and the death rate was 31% of those affected.

**CONTROL**

There is no vaccine available for the prevention of sporadic bovine encephalomyelitis. Remove cattle known to be infected from the herd as early as possible. Provide nutritious, palatable feed, and make every effort to keep the animal eating.

Consult your local veterinarian if you suspect this infection in your herd. He is best qualified to assist in the diagnosis and treatment of this condition.