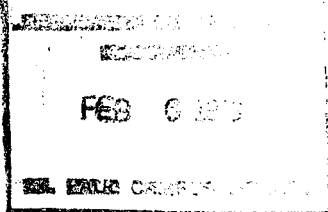


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Infectious Bovine Rhinotracheitis

Infectious bovine rhinotracheitis (commonly called IBR or red nose) is an acute, contagious virus disease of cattle. This infection usually occurs in the air passages of the head and the wind pipe. Unless this upper respiratory infection is complicated by pneumonia-producing pasteurella bacteria, it produces little or no change in the lungs. IBR infections in the upper respiratory tract also produce a mild inflammation inside the eyelids.

As a result, eyes are reddened and somewhat runny. On rare occasions, IBR infections may result in vulvo-vaginitis; then the lining of the female's vagina and vulva become reddened and irritated. Such infections are usually independent of concurrent infection in the upper respiratory tract and of abortion, even though this virus occurring in the respiratory tract is a common cause of abortion.

(continued)

Clinical signs of IBR include a runny nose and slight eye drainage. In a few cases, the nose and eyes are severely affected and become crusty, dry, and reddened. Severely affected animals often show short, fast, and shallow breathing.



Susceptibility

Cattle of all ages that have not been vaccinated or recovered from the natural disease condition are susceptible to IBR. However, calves born of immune mothers (those vaccinated for IBR or immune because they had IBR) are usually protected for about 4 months. Protection comes from the antibody calves receive in colostrum from immune mothers the first several days after birth. After a calf is about 4 months old, its mother's protective antibody wears off, and the calf becomes susceptible.

Clinical signs

Clinical signs vary greatly. Signs depend, somewhat, on whether IBR is the only infection or if several infectious viruses and pneumonia-producing pasteurilla bacteria concurrently infect the animal. For example, a newly arrived feeder calf may have been exposed to cattle carrying IBR and other virus diseases (bovine virus diarrhea, parainfluenza 3 virus, and less known viruses). Concurrent respiratory tract infection from several viruses and pasteurilla bacteria is commonly called shipping fever.

Common clinical signs of IBR are:

- Elevated body temperature, usually in the 103-105°F. range for 3 to 5 days.
- Unless the disease is complicated by other infections, appetite is usually reduced to about one fourth to one half of normal.
- Milk production is usually reduced to less than one third of normal.
- In an average uncomplicated case, only a runny nose and slight eye drainage is evident. In a few cases (around 5 percent), the nose and eyes are severely affected and become crusty, dry, and reddened.
- Severely affected animals often show short, fast, and shallow breathing because of swelling and partial closing of the respiratory passages.
- In most cases, bowel movements are near normal in consistency. However, a few may show either very dry feces or slight diarrhea.
- In cattle infected by other viruses and by pasteurilla bacteria, the disease usually shows much more serious signs.
- About 5 to 10 percent of cows in the last 2 to 4 months of pregnancy abort within 5 to 15 days after the disease begins.

- In noncomplicated cases among pasture cattle (which may not be observed closely), the disease is often mild enough to escape detection, except for a few animals showing a mild hacky, dry cough and runny, mattery eyes. Eye changes may make the owner think he has a pink eye problem.
- In animals showing the rare vulva-vagina IBR infection, a reddened inflammation is evident in the terminal reproductive tract.

Spread

IBR spreads from animal to animal; infected animals shed the virus by coughing respiratory secretions into the air. The secretions are then inhaled by other animals. Therefore, contagion depends on how much virus is put into the air and how closely the infected animals are confined. For example, in a poorly ventilated dairy barn, IBR may spread to all the cattle in 2 to 3 weeks. In a better ventilated barn, the disease may take 6 weeks to spread throughout the herd. In pastured range, a large herd having plenty of fresh air and little close contact could take up to 1 year for all cattle to contact the disease.

Diagnosis

Diagnosis requires a veterinarian. He will observe clinical signs and rate of spread and will analyze blood samples. Blood samples are usually collected at various stages of the disease. Aborted calves can also be examined to determine if IBR is present.

Treatment

Treatment first requires a definite diagnosis. If IBR is in its pure form (no other concurrent disease problems), it can be effectively treated. Only rarely will death occur. If IBR is complicated by other diseases as part of the complex syndrome of shipping fever, pasteurilla pneumonia, or bovine virus diarrhea, serious death losses may occur. For all respiratory diseases, early diagnosis is necessary to keep losses at a minimum.

Prevention

IBR can be prevented. In consultation with your veterinarian, develop a vaccination program for your specific needs and health management practices. A variety of vaccine types are available, but let your veterinarian decide which vaccine to use. Sometimes, veterinarians vaccinate during an outbreak. This decision is based on factors including the type of housing, effectiveness of the ventilation system, expected rate of spread, pregnancy status, and the absence or presence of concurrent diseases.

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