Bovine Leukosis Virus

CAUSE: The bovine leukosis virus (BLV) is a retrovirus that affects only cattle.

EFFECT: Infection likely occurs in newborns, but less than one in twenty offspring of infected animals will show clinical signs of the disease in their lifetime. In the lymphosarcoma form of disease, infected animals develop tumors in the uterus, abomasum, or heart. In the leukemia form of disease, they have an abnormally high number of white blood cells in circulation. Advanced stages of the disease may be signaled by weight loss, decreased milk production, enlarged lymph nodes, paralysis in the hind legs, and fever. Leukosis is a common cause for carcass condemnation at slaughter.

How is Bovine Leukosis spread? The disease is blood borne and can be spread by direct transfer of blood from one animal to another by way of an insect vector (e.g. horseflies), contaminated needles, dehorners, or ear taggers. Congenital infection is seen in less than one in ten calves born to positive dams. The virus is not transmitted by semen.

How can Bovine Leukosis be prevented? Test all farm additions to ensure that they are not infected with the disease. Use needles and rectal sleeves a single time on only one cow. Disinfect surgical instruments, dehorners, ear taggers between animals. Use colostrum from only test-negative dams.

Does Bovine Leukosis affect people? No, this disease is not transmissible to humans.

What if there is an outbreak? This disease is unlikely to present as an outbreak. However herds with this disease might consider management strategies to eliminate it from their herd in consultation with their veterinarian.

For more information on BLV, see:

Kansas State University Agricultural Experiment Station and Cooperative Extension Service: Bovine Leukosis

New York State Cattle Health Assurance Program: Bovine Leukosis Virus Module

USDA APHIS Info Sheet: Bovine Leukosis Virus (BLV) On U.S. Dairy Operations, 2007

The Merck Veterinary Manual: Bovine Leukosis