

DAIReXNET Webinar Review: Bovine Leukosis Virus (BLV): What it is and What Does it Mean to Me?



By: Donna Amaral-Phillips, Ph.D.

As part of the monthly webinar series, Dr. Ray Sweeney, veterinarian and professor at the University of Pennsylvania, School of Veterinary Medicine, presented a webinar on DAIReXNET regarding Bovine Leukosis Virus or BLV. His webinar covered how BLV is spread, how cows become infected, and ways to prevent this disease. This short article summarizes some of his take home messages.

1. BLV is caused by a retrovirus which can cause cancer in cattle. Once infected, the virus will always be found in white blood cells of the infected cow. However, most infected cows will not show clinical signs. Only 2 to 3% of infected cows will be diagnosed with cancer. This disease has a long incubation period. The incubation period may be 2 to 4 years before dairy cows show signs of the disease. Studies have shown only a small, if any, drop in milk production occurs in cows without clinical signs but infected with the virus.
2. In the US, approximately 90% of dairy herds have at least one cow infected with BLV and the incidence rate is higher in the Southeast. In the US, approximately half of the dairy cows are infected. This virus is not heat resistant, thus pasteurization is an effective means of killing BLV in milk and colostrum.
3. One drop of blood from an infected animal can infect a non-infected animal. The most common sources of infection include biting flies, multiple-use needles, non-cauterizing dehorning equipment, non-disinfected tattooing equipment, and use of rectal palpation sleeves with multiple cows. Even when blood is not visible but can still be present, rectal palpation sleeves used on infected cows can infect others.
4. No practical treatment or vaccine exists, thus prevention is the key in controlling this disease. Prevention practices in youngstock include (1) purchasing only negative BLV cows and heifers over 6 months of age (heifers under 6 months of age may falsely test positive because of antibodies found in colostrum), (2) freezing or pasteurizing colostrum and separation of calves at birth from adult animals, (3) pasteurizing whole milk, (4) use of individual hypodermic needles and disposable rectal palpation sleeves, and (5) disinfecting non-cauterizing dehorning and tattooing equipment using chlorohexidine after each use.

For those who would like to view this webinar, it can be viewed from the DAIReXNET website under the heading of archived webinars (www.extension.org/dairy+cattle).