

DECREASING PERINATAL BOVINE LEUKOSIS VIRUS INFECTION IN CALVES

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ABSTRACT

Bovine leukosis virus is an oncogenic retrovirus of cattle that causes lymphosarcoma in a proportion of infected individuals. Currently the United States estimates are that 44% of dairy cattle and 10% of beef cattle are infected with the virus. Many states have voluntary control programs in place, but no mandatory or federal programs currently exist. This is dramatically different from many other industrialized, cattle producing countries that have government controlled, mandatory control and eradication programs in place.

The inability to accurately detect infection in calves by serologic test methods due to the interference of colostral immunoglobulin has led to US control programs focusing on the identification of infected adults. The ease at which serologic methods can be used in adults has also removed attention from the potential role that persistent lymphocytosis may play on an infected premise. The goal of this body of work was to develop alternative methods that may be utilized on heavily infected farms to help in the control of BLV infection. The studies presented here focus on the utility of diagnostic tests in the identification of infected calves and the identification of adults with persistent lymphocytosis.