

Development of a Bovine Leukemia Virus Control Program

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Bovine Leukemia Virus (BLV) infects cattle and affects mainly dairy herds. It is present on 90% of all Albertan dairy herds. Besides the development of Enzootic Bovine Leukosis (EBL, the development of lymphoma/lymphosarcoma) in about 5% of infected animals, the virus disrupts the immune system of cattle, resulting in an impaired immune response. By causing a production limiting disease, the infection with BLV results in financial losses to producers and dairy industry. These losses include for example restricted export to BLV-free countries, decreased cow longevity and milk production and disposals of diseased carcasses.

The development of a producer-driven and developed Bovine Leukemia Virus Control Program for Alberta intends to raise awareness and reduce the prevalence of virus and disease. The combination of communication and knowledge exchange with a variety of stakeholders, a small implementation-trial and on-farm workshops will result in the creation of a high-quality, practical and sustainable control-program. After an individual risk assessment a specific action plan will be proposed that can be tailored to individual producer needs and specific on-farm situations. An important part of this risk assessment is the detection of infected animals. The use of the ELISA-testkit that was found to be the best among commercially available testing platforms will make this possible in a reliable and effective way. To underline the necessity of a control program an economic assessment of the current situation in Alberta and Canada will be conducted.

The successful establishment of a coherent, evaluated BLV control program that is ready to implement on a large scale will provide a model for the design of other disease control strategies.