

Bovine Leukosis Virus (BLV) Diagnostic Results – Supplemental Information

BLV Facts:

- Blood borne disease caused by bovine leukosis virus
- 88.5% of dairy herds and 38.7% of beef herds are infected (NAHMS '96 survey)
- Clinical symptoms (in 5% of animals infected) result from the development of tumors in lymphatic tissue
 - symptoms can include: weight loss, decreased milk production and immobility (downer cows)
- Leukosis tumors are the leading cause of condemnation at slaughter facilities
- Disease is spread by transfer of blood cells from infected animals via
 - many common management techniques, re-use of contaminated needles, syringes, breeding sleeves, dehorning, tail dockers, milking equipment, etc.
 - colostrum and waste milk
 - transmission to fetus in utero (10 – 20% of the time)
- Costs of BLV are typically associated with lost marketing opportunities, sale of replacement stock, bulls to A.I. or embryos.
- Since there is no treatment for the disease, symptoms get progressively worse until the animal is culled from the herd or dies.

How to control the spread of BLV:

- Use single-use needles and breeding gloves once and discard
- Disinfect all instruments used for management procedures including dehorning, castration, tagging and tattooing, etc. before re-use
- Use Artificial Insemination or BLV-negative bulls
- Feed calves colostrum from BLV test-negative cows or milk-replacer
- Clean calf delivery equipment and maternity area after each use
- Reduce contamination by cleaning feed and water containers regularly
- Manage positive and negative cows in separate groups, if possible
- Milk and perform vet procedures on BLV positive animals last
- Eliminate overcrowding (no more than 110% in freestall barns)
- Reduce numbers of biting insects

Testing for BLV:

- Infected animals detected by the antibody in blood or milk
- ELISA testing is nearly 100% accurate
- Testing is useful to:
 - identify which animals are infected
 - monitor progress of programs for control or eradication
 - isolate areas which are at higher risk for horizontal transmission within a herd
- Optimal testing protocol:
 - Test all cattle in a herd to establish a prevalence
 - Test all cattle entering the herd and isolate them for 30-60 days, test again prior to introduction into the herd
 - Develop and implement management procedures to reduce spread of disease
 - Establish annual testing program for all animals in the herd