



BVD Infection Cost in a Dairy Herd*

Key Points

- Over \$48.00 CDN, or \$34.64 US dollars, per cow is the dollar loss due to BVD infection in a dairy herd.
- These costs are direct production losses and cost of treating sick animals, milk loss is not included in this calculation.

Study Design

Goal	Determine direct production losses, premature voluntary culling, reduced slaughter value, mortality loss, abortion, reproductive loss attributable to BVD bovine viral diarrhea disease. Determine costs of treatment, veterinary services, medication, extra farm labor due to BVD disease.
Method	Partial budget model. Incorporated risk and sensitivity analysis to identify effects of the disease.
Assumptions	0% milk yield reduction since herds used were seropositive for BVD. Seven components used to determine direct production losses/treatment costs. Some animals subclinically infected, only a portion develop measurable manifestations of the disease; only a few may be persistently infected and continuously shedding virus.

Model Groups**

Group 1	10% unvaccinated epidemically-infected herds, assumed a recent introduction of BVD virus leading to an epidemic of BVD.
Group 2	40% vaccinated herds with BVD endemic infection, experiencing minimal losses.
Group 3	50% unvaccinated endemically infected herds experiencing periodic although reduced morbidity and mortality.

* Chi et al., Preventive Veterinary Medicine, 2002, Issue 55.

** Derived from survey published by VanLeeuwen et al. 2001.

Results of Analysis

- Total costs associated with BVD infection in a dairy herd averaged \$48.44* per cow.
- The total direct production losses, excluding milk loss, due to BVD was \$47.32* per cow. Of this amount, the greatest loss of \$20.50* was due to premature culling/reduced cull value, mortality accounted for \$18.70* per cow and abortion and reproductive losses were \$8.12* per cow.
- Figuring a 5% milk loss instead of the 0% used, would increase herd costs associated with BVD by 266%.
- The losses associated with treatment costs amounted to \$1.12* per cow. Those losses were from veterinary services, medication cost, and extra labor of treatment.

The Bottom Line

- Published Canadian research shows an average of \$48.44* per cow loss due to BVD infection in endemic herds or in vaccinated epidemic herds.
- No milk loss was calculated into these costs.
- If the same study were conducted in the US, the loss attributable to BVD would likely be approximately \$35.00 if milk losses were excluded.

*CDN