

Relationship between bulk tank milk somatic cell count and bovine viral diarrhea status in dairy farms in Semnan

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Abstract

Bovine viral diarrhea is one of the viral causes of mastitis in cattle and the economic losses of herds. This virus can make cattle more susceptible to bacterial causes of mastitis by damage to tits, papillary ducts, and immune suppression. The study aimed to examine the relationship between bovine viral diarrhea virus (BVDV) infections on bulk tank milk somatic cell counts (BTMSCC) in Semnan province. Forty dairy farms supplying milk to a dairy in Semnan province were recruited for this study. Bulk milk ELISA test was used to determine the BVDV infection status. Also, a delaval somatic cell counter was used to count the total somatic cell and Gerber and Formel titration method used for evaluating fat and protein percent of milk, respectively. The BTMSCC mean values for the BVDV seronegative (464.25×10^3 cells/ml; SD: 57.96×10^3) and seropositive (618.08×10^3 cells/ml; SD: 79.17×10^3) herds did not differ significantly. The percentage of protein and fat showed no significant difference between seropositive and seronegative. In conclusion, no statistically significant effect of BVDV infection on BTMSCC was found.

Key words: BVD, Somatic Cell Count, Milk Fat, Milk Protein

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