

**SEROLOGICAL EVIDENCE OF INFECTIOUS BOVINE RHINOTRACHEITIS/
INFECTIOUS PUSTULAR VULVOVAGINITIS (IBR/IPV) IN CATTLE IN
SELECTED LOCATIONS IN SRI LANKA.**

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Infectious Bovine Rhinotracheitis/Infectious Pustular Vulvovaginitis (IBR/IPV) is a highly contagious infectious disease caused by Bovine Herpesvirus – 1 (BHV – 1). This virus causes upper respiratory tract disease in cattle. In addition, it causes conjunctivitis, vulvovaginitis, abortions, balanoposthitis, encephalitis and generalized systemic infections.

Although clinical findings may be highly suggestive of IBR/IPV there are no specific pathological signs to distinguish this infection. Therefore, laboratory confirmation is necessary to identify BHV infection. Further, confirmation of exposure to BHV – 1 via natural infection is facilitated by the measurement of antibody levels in serum.

From January to July 2004, a total of 217 serum samples from dairy cattle in North Central, Central and North Western Provinces were collected for this study. Sampling was carried out in five groups. 1). Repeat breeder cows from four Veterinary Surgeons' (V.S.) ranges in Central Province, 2). Cows with abortions from four V. S. ranges in North Central Province, 3). Cows and bulls from herds in Polonnaruwa, Oyamaduwu, Polonthalawa, Udaperadeniya and Veterinary Faculty farm, 4). Bulls maintained at the Artificial Insemination Center, Kundasale as semen donors and 5). Bulls that had been used for natural service elsewhere and sent for slaughter.

Enzyme Linked Immunosorbent Assay (ELISA) (IDEXX Laboratories USA) was used to screen serum antibodies against BHV – 1 in these animals.

The overall prevalence of BHV – 1 antibodies among the study population was 68.6% (149/217). Of the 217 cattle screened, 36 were males and 181 were females. Of the 36 males 19 (52.7%) had serum antibodies to BHV-1 virus, whereas (74.5%) of 181 females screened had antibodies to BHV-1 virus. In the repeat breeder group, the prevalence of antibodies was 13.8% (05/36). Prevalence of serum antibodies in the group with a history of abortions was 62.5% (20/32). The prevalence of serum antibodies to BHV-1 in cattle aged over one year in herds and farms was 95.7% (113/118). The prevalence among bulls used for natural service was 63.5 (12/19) whilst it was 41% (07/17) among the semen donors.

These findings confirm the seroprevalence of IBR/IPV in cattle in Sri Lanka. Further studies to confirm the presence of IBR/IPV antigen will be useful for future control programs.

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