

**TITLE:** OCCURRENCE OF PARATUBERCULOSIS IN CALVES OF PARA STATE-BRAZIL

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**ABSTRACTS:**

Paratuberculosis or Johne's disease is a granulomatous enteritis caused by *Mycobacterium avium* subsp. *paratuberculosis* (MAP) of cosmopolitan distribution that commonly affects domestic ruminants, being a transmissible disease of socioeconomic and health service importance, whose control is necessary for the international trade of animals and foods of animal origin. In Brazil, paratuberculosis has been described in several ruminant species and in several states. Thus, the objective of this work was to perform a serological survey to verify the current frequency of Paratuberculosis in cattle herds in the state of Pará-Brazil. The animals used in the present study were male calves, with mixed races from 10 to 15 months old from Santa Isabel do Pará, Tomé-Açu, Nova Ipixuna, Paragominas, São Domingos do Araguaia and Tucuruí cities (localities). 1122 bovine blood samples were collected by jugular vein puncture using vacuum tubes of the vacumtainer type without anticoagulant to obtain the serum. The samples were stored in properly cooled isothermal boxes and sent to the Biomolecular Technology Laboratory (LTB), Federal University of Pará (UFPA). They were then centrifuged for serum separation which were transferred to 2mL microtubes and kept at -20 ° C until the tests were performed. The samples were submitted to the Indirect Immunoenzymatic Assay (ELISA), using the IDEXX *Mycobacterium paratuberculosis* (MAP) kit, which detects the antibodies against MAP in bovine sera. The test was performed according to the manufacturer's recommendation. Of the 1122 calves samples analyzed 95/1122(8.5%) were reagents for MAP. The frequency was São Domingos do Araguaia with 1/9(11.1%), Santa Isabel do Pará with 34/311(10.9%), Paragominas with 30/332(9.0%), Tomé-Açu with 21/304(6.9%), Tucuruí with 6/88(6.8%) and Nova Ipixuna with 3/78(3.8%). Therefore, paratuberculosis is widespread in the herds and cities studied in the state of Pará. In the cities of Santa Isabel do Pará and Paragominas, the highest percentage of seroreagent animals was found. The presence of positive animals in all municipalities studied highlights the need for health measures of the disease in the state of Pará.

**Keywords:** Calves, Cattle, *Mycobacterium paratuberculosis* (MAP), Pará-Brazil, Paratuberculosis

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