**BABESIA BOVIS INFECTION IN CATTLE FROM RONDONIA, BRAZIL**

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**Introduction:** In Latin America, bovine babesiosis is due to *Babesia bovis* and *Babesia bigemina*, which are exclusively transmitted by the tick *Rhipicephalus (Boophilus) microplus*. Most of the Brazilian territory is endemic for *R. microplus*, condition also present in Rondonia State.

**Objective:** The present study provides the first epidemiological data regarding infection by *Babesia bovis* in cattle reared in south-western Brazilian Amazonia.

**Material and methods:** The study was developed with blood clots donated by Animal Health Services of Rondonia and Acre states. All evaluated cattle with 4-12 months of age were from eight microregions of Rondonia: Alvorada do Oeste, Cacoal, Guajara-Mirim, and Ji-Parana. Based on an estimated prevalence of cattle 70.0% positive for *B. bovis*, was found for a sampling of 45 samples by region. One simple procedure was adapted for the extraction of DNA from blood clots collected in four microregions of Rondonia State. PCR method was used to assess the frequency of *B. bovis* infections in 4 to 12-month-old cattle. The cattle infection was investigated by nested polymerase chain reaction (nPCR) using the specifics primers for *B. bovis*.

**Results and discussion:** The DNA amplifications revealed that the mean frequency of *B. bovis* infection was 94.75% (286/272) in samples from Rondonia. The high frequency of *B. bovis* infections in 4 to 12-month-old cattle indicate a situation of enzootic stability in the studied areas and are comparable to those detected by immunodiagnosis in different endemic regions in Brazil. The DNA extraction of clotted blood method can be used for epidemiological studies on bovine babesiosis and other bovine hemoparasites.

**Conclusions:** The results obtained in Rondonia state not differ from other Brazilian regions, where *B. bovis* infection is also high and independent of others factors like age and racial traits. However, similar epidemiological patterns are expected in other regions between the parallels 32° South and 32° North, where the main vector of *B. bovis*, the *R. microplus* tick is amply diffused.

**Keywords:** Babesia bovis, cattle infection, rondonia, brazil