

TITLE: Bovine tuberculosis in the State of Rio Grande do Norte: a retrospective study

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ABSTRACT

In Brazil, the National Program for the Control and Eradication of Brucellosis and Animal Tuberculosis (PNCEBT), instituted in 2001 and recently updated by Normative Instruction nº 10/2017, aims to reduce the prevalence and incidence of brucellosis and bovine tuberculosis and buffalo, with a view to its eradication. Several studies have been conducted with the objective of characterizing the epidemiological situation of bovine tuberculosis in Brazilian Federative Units. However, the state of Rio Grande do Norte, Brazil, has no official data on the actual health condition of the herd, which has contributed to the devaluation of the local herd. The objective of the present study was to determine the frequency of positive animals for bovine tuberculosis in the state of Rio Grande do Norte. The data were provided by the Institute of Defense and Agricultural Inspection of Rio Grande do Norte (IDIARN) and come from its Local Animal and Plant Health Units (ULSAV'S) collected from the monthly reports issued by veterinarians authorized to work under the National Program of the Control and Eradication of Brucellosis and of Animal Tuberculosis (PNCEBT), covering the period from June 2012 to June 2018. For the diagnosis, the simple cervical test and the cervical comparative test were used as the screening test. In total, 16.889 cattle were tested, of which 44 animals (0,26%) presented a positive result. There was no significant difference ($P < 0,05$) in the frequency of positivity between females (0,25%) and males (1,16%). In view of this result and considering the importance of local bovine farming to the economy, it is important to conduct measures that include producers' awareness, sanitary control in the acquisition and sale of matrices, inspection of sanitary barriers and periodic surveys of the epidemiological situation of this disease, especially in the Units with the highest frequency of positive animals, with the aim of avoiding, or at least minimizing, the spread of the agent.

Keywords: bovine tuberculosis; epidemiology; frequency; *Mycobacterium bovis*