

Title: *Ureaplasma* spp. IN SHEEP WITH REPRODUCTIVE DISORDERS DETECCTED BY PCR AND SEQUENCING

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Abstract:

The sheep industry in Brazil has been improving in recent years, with increasing number of breeders as a result of the hampering demand for sheep products. *Mycoplasma* spp. is a bacterium that affects the mucous and serous membranes of the genito-urinary, respiratory, mamary and joints systems, causing chronic diseases in sheep, wich can be expressed by vulvovaginitis, vesiculitis, pneumonia, arthritis and mastitis. In order to investigate mycoplasmosis in sheep, samples were collected from 49 adult animals of two premises with semi-intensive breeding system, located in Cachoeiras de Macacu, Rio de Janeiro, Brazil. In premises A, with no history of clinical manifestations, 34 swabs were obtained (one nasal, 30 vaginal and three preputial) from 33 sheep. In premises B, with a history of reproductive problems, such as embryonic / fetal resorption, fetal mummification, stillborn, mucometra and pyometra, 16 vaginal swabs were collected. DNA samples were extracted by phenol-chloroform method and PCR was perform by using nine *Mycoplasma* spp. primers, with expected amplicons of approximately 510pb. The amplified products were subjected to agarose gel electrophoresis and visualization under UV light transilluminator. Of the 49 animals tested, 16.32% (8/49) were positive for *Mycoplasma* spp. All positive samples were from premises B, being 50% (8/16) the positive frequency obtained. Of the eight PCR positive animals, samples from six of them were subjected to sequencing, being observed 100% similarity with *Ureaplasma* spp. GENE BANK deposits (GU2273961 access), according to the BLAST program. The presence of *Ureaplasma* spp. only in premises B, suggests its involvement in the reproductive problems of the sheep studied. Similar findings were reported in São Paulo, in 2011. In Rio de Janeiro, this may be the first report of sheep Ureaplasmosis, as it was not found report on this subject in the literature. Considering that antimicrobial therapy and the management to be adopted in the presence of this agent differ from those applied to other infectious organisms, specific measures should be implemented in controlling this infection.

Key-words: Ureaplasmosis, sheep raising, reproduction, PCR

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