

## **Investigation of an Outbreak of Recurrent Subclinical Mastitis in a Dairy Goat Farm in Central Province, Sri Lanka**

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Mastitis is one of the costliest diseases in dairy goat herds worldwide. An outbreak of recurrent subclinical mastitis lasting for several months in a large-scale goat farm in the Central Province was investigated in this study. The affected animals were refractory to antibiotic treatment. However, the antibiotic treatment was undertaken without antibiotic sensitivity testing. *Mycoplasma* species are significant pathogens responsible for mastitis in goats, and the infections are often refractory to conventional antibiotic therapy. Therefore, the objectives of the current study were to determine whether *Mycoplasma* species are associated with subclinical mastitis in dairy goat farm. A total of 26 milk samples were collected from dairy goat farm in Gampola Veterinary Range, Central Province, Sri Lanka during two consecutive visits within one month. The samples were analyzed using microbiological culture, biochemical tests and PCR to investigate *Mycoplasma* species. The first set of samples (10 samples in total) were negative for bacterial and fungal growth. Out of the 16 samples from the second visit, 09 yielded bacterial growths, dominated by *Klebsiella* spp, followed by *Staphylococcus aureus* and *Bacillus* species. All the samples were negative for fungal growth. Out of the 9 samples that were positive for bacterial growth, 2 were positive for *Mycoplasma* spp. by PCR specific for 16SrRNA gene. This is the first study to confirm the presence of *Mycoplasma* spp in the milk from Sri Lankan dairy goats, however, due to budgetary limitations, it was not confirmed whether it's a pathogenic species. Further studies on the phylogenetic analysis of *Mycoplasma* species in Sri Lankan goat farms are required to confirm the occurrence, epidemiology, and specific species of *Mycoplasma* involved in Sri Lanka.

**Keywords:** Subclinical mastitis, Dairy goats, Mycoplasma, PCR