



University of Kentucky
UKnowledge

International Grassland Congress Proceedings

21st International Grassland Congress / 8th
International Rangeland Congress

Seasonal Prevalence of Bovine Mastitis Causing Organism during Summer, from Grazing Land of Western Ghats

M. Mardhu Ramachandran
The American College, India

M. Andrew Pardeep
The American College, India

T. R. Prabha
The American College, India

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/21/9-3/44>

The 21st International Grassland Congress / 8th International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

Seasonal prevalence of bovine mastitis causing organism during summer ,from grazing land of western Ghats

M Mardhu Ramachandran* M Andrew Pardeep ,T R .Prabha ,
 Department of Immunology & Microbiology ,The American College ,Madurai-625002 ,India
 E-mail : mmarudhu@sify .com

Mastitis is an inflammatory condition of the udder ,resulting in physical ,chemical and microbiological changes in the milk ; pathological changes in the milk include changes of colour consistency and presence of abnormally large numbers of leucocytes . A variety of bacterial ,viral and fungal species are associated with the inflammatory condition including *streptococcus agalatae* , *staphylococcus aureus* .The high summer prevalence of bovine mastitis causing organisms from the grazing land of the Western Ghats is due to rough grazing . The present study focuses on the occurrence of *streptococcus agalatae* in a completely grazed area during summer .

Four soil samples per month were collected in a sterile plastic bag from various places in the grazing land and rain forest soil of Western Ghats (lat .10°12' N ,long 77°30' E) Tamil Nadu ,India in different seasons (January-December) . Soil samples were saturated with sterile distilled water ,serially diluted and then inoculated on selective and differential media . These plates were incubated at 37°C for 24 hrs . Bacteria were identified using standard biochemical tests based on Berge's Manual of Systematic Bacteriology .

Result Seven different isolates were identified in the soil samples from both rain forest and grazing zone . *Pseudomonas* was observed to exhibit antagonistic properties against *streptococcus agalatae* .

Month	Season	Grazing zone CFU/ml	Rain forest zone CFU/ml
April	Summer	4×10 ⁶	8×10 ⁶
May		6×10 ⁶	8×10 ⁶
June		6×10 ⁶	8×10 ⁶
July	Spring	8×10 ⁶	10×10 ⁶
August		10×10 ⁶	10×10 ⁶
September		8×10 ⁶	16×10 ⁶
October	Winter	8×10 ⁶	20×10 ⁶
November		8×10 ⁶	23×10 ⁶
December		8×10 ⁶	25×10 ⁶
January	Autumn	6×10 ⁶	15×10 ⁶
February		8×10 ⁶	15×10 ⁶
March		6×10 ⁶	10×10 ⁶

Discussion Seasonal conditions favor the occurrence of *streptococcus agalatae* leading to mastitis infections . *Pseudomonas* can be recommended to control the occurrence of the *streptococcus agalatae* infection in cattle particularly during periods of heavy grazing .