

**PREVALENCE OF BOVINE SUBCLINICAL MASTITIS  
(SCM) IN BATTICALOA DISTRICT**



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## ABSTRACT

Subclinical mastitis (SCM) is one of the most economically important diseases in lactating cows in worldwide dairy farms. Present study was carried out to investigate prevalence of subclinical mastitis in dairy cows in Batticaloa District, Sri Lanka and relation to the major pathogens, risk factors and economic losses. In this study, a total of 152 lactating cows were randomly selected to identify SCM using California Mastitis Test (CMT) from 15 veterinary ranges of Batticaloa District. Milk samples were collected aseptically from CMT positive cows and dispatched to laboratory in the ice box. Microbiological and biochemical analysis were carried out to isolate pathogens in the milk sample by a standard procedure. Result showed that 66 lactating cows (43%) were positive to CMT, in which 116 (19.1%) quarters showed CMT positive. While, 93.9% of CMT quarters showed a bacterial growth after the culturing. Major microorganisms such as *Staphylococcus spp.* (90.5%), *Escherichia coli* (6.0%) and *Streptococcus spp.* (3.5%) were isolated from milk sample. Factors such as breed, age, parity, stage of lactation, farming system, housing system, calf suckling after milking, isolation of infected cows, hygienic practices and milk production significantly ( $p < 0.05$ ) affected prevalence of SCM.

Prevalence of SCM was high in European crosses in terms of odds ratio (OR: 21.34) compared with local breed. More than 8 years old cows (OR: 4.5) and, more than 5 parity number (OR: 8.8) had higher chance of SCM compared with lower age and parity number cows. Late stage of lactation (OR: 6.4) compared with early stage of lactation, intensive farming system (OR: 10.3) compared with extensive farming system, closed housing system (OR: 10.3) compared with open housing system,

calf not suckling after milking (OR: 17.9) compared with calf suckling after milking, rearing of infected cow with other cows (OR: 7.0) compared with rearing of infected cows with isolated shed, poor hygienic practices (OR: 12.6) compared with good hygienic practices, and milk production of 3-6 L (OR: 6.9) were associated with higher chances of subclinical mastitis in terms of odds ratio.

In general, estimated economical loss from 66 infected cows was LKR Rs. 471,744 per lactation. Current study revealed that the prevention of SCM could reduce the loss in milk production.

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