

List of Tables

Prevalence of Staphylococcus aureus in sub-clinical astatic milk in relation
to different variables.....15

List of figures

Bright yellow colonies indicating the growth of Staphylococcus sp on MAnitol
Salt agar plate (a) and hemolysis on blood agar plates (b) and grape like
cluster under microscope in Gram's Staining..... 9

Tube Catalase test for confirmation of Staphylococcus aureus (a) Slide catalase
Test for confirmation of Staphylococcus aureus (b) Tube coagulase test
Confirmation of Staphylococcus aureus (c) Slide coagulase test
Confirmation of Staphylococcus aureus.....10

LIST OF ABBREVIATION AND SYMBOLS

Abbreviations/Symbols	Elaborations
%	Percentage
+ve	Positive
-ve	Negative
<	Less than
>	Greater than
No.	Number
°C	Degree Celsius
°F	Degree Fahrenheit
BPW	Buffered Peptone Water
BA	Blood Agar
MSA	Mannitol Salt Agar
CMT	California Mastitis Test
100 X	Hundred Magnification
et al.	And his associate
e.g.	Example
etc.	Et cetera
CVASU	Chittagong Veterinary and Animal Sciences University

PLAGIARISM CERTIFICATE

I, Abdullah Al Sattar, would like to strongly assure you that I have performed all works furnished here in this report. The information has been collected from different books, national and international journals, websites and references. All the references have been acknowledged duly.

Therefore, I reserve entire responsibility of this report.

.....

The Author

September 2018

Isolation and identification of *Staphylococcus aureus* from bovine milk

Abstract

Staphylococcus aureus is the most prevalent and economically significant pathogen causing intra mammary infections in dairy ruminants. The study was intended to isolate and identify *Staphylococcus aureus* from mammary quarter milk of cows and determine the potential risk factors associated with subclinical mastitis in Chittagong, Bangladesh. During 6 months duration of the study a total of 628 milk samples were collected from 102 dairy farms from different upazillas/ thanas in Chittagong district. The samples were collected under aseptic precautions. Data on probable risk factors was recorded by using questionnaire. California Mastitis test (CMT) was performed to detect subclinical mastitis (SCM) status and the positive samples were subjected to culture for isolation and identification of *Staphylococcus aureus*. Using bacteriological, biochemical based identification schemes, 13 SCM positive milk samples, from total 314 collected samples of 101 dairy farms, yielded *Staphylococcus aureus*. Udder hygiene, udder management and milking process showed statistically significant association with *Staphylococcus aureus*. In conclusion, it can be mentioned that, *Staphylococcus aureus* can significantly affect the bovine udder and can cause great economic loss. So, proper steps should be taken to control the occurrence.

Keywords: *Staphylococcus aureus*, subclinical mastitis, California Mastitis test,