# PURE MILK AND THE PUBLIC HEALTH; A MANUAL OF MILK AND DAIRY INSPECTION

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Pure milk and the public health; a manual of milk and dairy inspection by Archibald Robinson Ward & Myer Edward Jaffa

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ARCHIBALD ROBINSON WARD & MYER EDWARD JAFFA

# PURE MILK AND THE PUBLIC HEALTH; A MANUAL OF MILK AND DAIRY INSPECTION

Trieste

# PURE MILK

# AND THE

# PUBLIC HEALTH

#### A MANUAL OF

# Milk and Dairy Inspection

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WITH TWO CHAPTERS.

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1989

### TO

# VERANUS ALVA MOORE

WHOSE INSPIRING WORK AS A TEACHER AND INVESTIGATOR IN THE FIELD OF COM-PARATIVE PATHOLOGY AND BACTERIOLOGY IS EXERTING A PROFOUND INFLUENCE IN UPLIFTING THE VETERINARY PROFESSION, THIS BOOK IS DEDICATED.

# 190867

#### PREFACE.

The relation of milk to the public health and the means employed to ensure a safe milk supply is a subject of varied aspects. The proper control of the public milk supply requires more or less of the services of the bacteriologist, the chemist, the physician, the veterinarian, and the progressive dairyman. The ordinary fund of technical knowledge possessed by any one of these classes is not sufficient for coping with the difficulties encountered in carrying on efficient and comprehensive measures for milk and dairy inspection. Furthermore, knowledge concerning the subject is being rapidly increased by contributions widely scattered in technical journals.

The writer has attempted the difficult task of assembling the essential facts for the information of the health officer and others directly concerned in the crusade for better milk. The class of individuals particularly addressed is such, that a general knowledge of bacteriology is assumed to be possessed by the reader.

Each chapter is accompanied by a list of references bearing on the subjects discussed. Throughout the text, numbers in parenthesis, referring to the authorities given at the end of the chapter, have been freely used. These references serve in some cases to give statements greater weight than a mere unsupported personal opinion would have, and in all cases permit those particularly interested to gain access readily to the details concerning the points at issue.

In the preparation of the book, the writer has become greatly obligated to his colleague, Professor M. E. Jaffa, for writing chapters X and XI. With reference to those chapters, Professor Jaffa desires to have it stated that he has not attempted to present the details of the more common methods employed in the chemical examination of milk. This branch of milk inspection is the most advanced and the methods are well established. He has been content to indicate what should be done

#### PREFACE.

and to refer to standard works on the subject for the methods except in the case of some of the simple tests.

Dr. William H. Boynton, Assistant in Pathology and Bacteriology, New York State Veterinary College, has very generously permitted the use of the photographs appearing as figures 13 and 14, together with his description of them, in advance of publication by himself. Professor G. C. Watson, General Manager of the Tully Farms, Tully, N. Y., has kindly permitted the use of photographs appearing as figures 3 and 4. Dr. Francis H. Slack, Chairman of the Committee of the American Public Health Association ou Standard Methods of Bacterial Milk Analysis, has rendered assistance by furnishing a manuscript copy of the 1908 report of that Committee. Specific acknowledgement as to sources of information has been made largely throughout the text by means of the system of references employed.

It is not safe to indulge in the hope that important work has not been overlooked, or that new facts may not require a modification of attitude towards certain troublesome problems. Therefore, assistance tending to improve the book will be gratefully received.

A. R. W.

# TABLE OF CONTENTS.

LIST OF	FIGURES	IN TEXT
---------	---------	---------

XIII

# CHAPTER I.

### THE CONTAMINATION OF MILK.

Uddec .	1
Character of bacteria	3
Significance	4
Foremilk	5
Coat of animal	5
Exterior of udder	6
Shape of milk pail	7
✓The milker	8
Milking machines	8
✓Stable	10
Floor	10
Mangers and stanchious	11
Rarn improvements	11
Feeding	12
special milking rooms	12
Cleausing of utensils	1.3
Scalding	13
Construction of utensils	15
✓landling milk	15
Bottling milk	16
Milk room	16
✓Delivery of milk	16
Milk flavors	17
Sediments	17
References	. 18

#### CHAPTER II.

# CHANGES IN MILK CAUSED BY BACTERIA.

Significance of bacterial contamination	2
Numbers of bacteria in market milk	2
Effect of temperature on bacterial growth	2
✓ Methods of cooling	· 2
Milk during transportation	2
Preservation by chemicals	

#### CONTENTS.

,

Lactic acid fermentation	26
Putrefactive processes	29
Organisms causing putrefaction	29
Antagonism of lactic acid fermentation	29
Conditions controlling patrefaction	29
Source of putrefactive organisms	30
Toxic milk	30
Ropy milk	30
Cause of ropy milk	.31
Biological characteristics of B, lactis viscosus	32
Sources of contamination of milk	32
Means of combating ropy milk	33
Germicidal activity	
References	38

#### CHAPTER III.

#### EPIDEMIC DISEASES TRANSMITTED BY MILK.

Transmission of diseases of man by milk	+1
Character of milk-borne epidemics	41
Typhoid fever	42
Investigations in the District of Columbia	42
Importance of milk as a carrier	43
Sources of the contamination of milk	45
Detection of milk-borne typhoid fever epidemics	46
Berkeley, Cal., outbreak	49
Diphtheria .	51
Recognition of milk-borne diphtheria epidemics	52
Milk-borue diphtheria in Oroville, Cal.	53
Scarlet fever	54
Gastro-intestinal infections	55
References	56

#### CHAPTER IV.

#### BOVINE TUBERCULOSIS AND OTHER CATTLE DISEASES.

Bovine tuberculosis		59
Losses to the live stock industry		59
Transmission by milk		59
Infection of swine		60
Insidious onset		60
Conditions governing prevalence		60
Prevalence in herds		61
Contamination of milk by tubercle bacilli .		62
Tubercle bacilli in market milk	1.0	64
Human and bovine types of tubercle bacilli		63

#### VIII

#### - CONTENTS.

Views of Koch		64
Bovine tubercle bacilli in man		64
Intermediate types of tubercle bacilli		65
Channels of infection		65
International Congress of 1908		66
Tuberculosis in Japan		66
Present status of controversy		67
Protection of the milk supply		67
Measures against bovine tuberculosis		67
Physical examination		68
Tubercalin test		71
New tests for tuberculosis		72
Stable sanitation and tuberculosis		72
Tuberculin test ordinances		72
Clean herds the goal		73
The Washington plan		73
Test by city official		75
Test by any licensed veterinarian		76
Milk contracts		76
Application of the tuberculin test		77
Temporary numbers		77
Facilitating observations of temperatures	2	77
Injection with tuberculin		79
Temperatures after injection		79
Interpretation of temperatures		79
Limitations of tuberculin test		79
Frand		80
Permanent identification of animals		80
Disposal of tubercular animals		82
Disinfection		85
Education of dairymen concerning bovine tuberculosis		85
Authrax		86
Suppuration		86
Cowpox		87
Parturition disturbances		87
		87
Malta fever Foot and mouth disease		88
Foot and mouth disease Milk-sickness		SS
		89
References		0.0

# CHAPTER V.

# MUNICIPAL SANITARY CONTROL OF MILK.

Control of milk supply	93
VInspection	93
The dairy score card	

IX