

**CHEMICAL AND PHYSICAL  
ANALYSIS OF MILK,  
CONDENSED MILK, AND  
INFANTS' MILK-FOODS**

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Chemical and Physical Analysis of Milk, Condensed Milk, and Infants' Milk-Foods by Nicholas Gerber

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**NICHOLAS GERBER**

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CHEMICAL AND PHYSICAL ANALYSIS  
—OF—  
MILK, CONDENSED MILK,  
—AND—  
INFANTS' MILK-FOODS,

WITH SPECIAL REGARD TO  
HYGIENE AND SANITARY MILK INSPECTION.

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*A Laboratory Guide, developed from Practical Experience,*

INTENDED FOR  
CHEMISTS, PHYSICIANS, SANITARIANS, STUDENTS, ETC.

By DR. NICHOLAS GERBER,

Manager of the American-Swiss Milk Product Company (Limited) in New York; Member of the  
Chemical Societies of Berlin, New York, Paris, etc.

*Translated from the Revised German Edition, and Edited by*

DR. HERMANN ENDEMANN,

Editor of the Journal of the American Chemical Society; Member of the Chemical Societies of  
Berlin, New York, etc., etc.

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ILLUSTRATED BY 10 PLATES.

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NEW YORK, 1882.

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Dr. NICHOLAS GERBER, of Little Falls, N. Y.,  
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## EDITOR'S PREFACE.

In preparing this book for the English-speaking public, the undersigned desires to state that he has undertaken this task for the purpose of supplying a long-felt want. Most books published of late contain merely a collection of all the methods of analysis, or the selection of a number, put side by side without criticism.

The book in its present shape is a laboratory guide, which enables even beginners, and all such who cannot make the subject of milk analysis a speciality, to cope with this otherwise complicated task.

The selection of the proper method of analysis is taken off their hands and has been supplied by a man of practical experience, who has for many years made this subject a speciality.

Even chemists will find this book valuable, the more so as they are the best able to judge the advantages derived from the proper selection of the method adapted for the execution of an analysis.

The original has been carefully revised and many of the plates which illustrate the work have been substituted by better ones taken from the best publications on this subject, while others not contained in the original have been added.

H. ENDEMANN, Ph.D.

New York City, January, 1882.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part outlines the various methods and tools used to collect and analyze data. This includes the use of surveys, interviews, and focus groups to gather qualitative information, as well as the application of statistical techniques to quantitative data.

3. The third part of the document addresses the challenges and limitations of data collection and analysis. It highlights the potential for bias and error in data collection, as well as the difficulty of interpreting complex data sets.

4. The fourth part discusses the importance of data security and privacy. It emphasizes the need to implement robust security measures to protect sensitive information and to ensure compliance with relevant regulations.

5. The fifth part of the document provides a summary of the key findings and conclusions. It highlights the importance of ongoing monitoring and evaluation to ensure that the organization's data collection and analysis processes remain effective and relevant.



## PREFACE.

The undersigned has been engaged, scientifically and practically, in the dairy industry in all its branches for a number of years, and thus has had, frequently, occasion to seriously feel the want of a uniform method of analysis for milk and its products, which would not only satisfy practical wants, but would also possess scientific accuracy.

The author has made it his task to present in this small volume a short and exact method of analysis for the examination of the various milks and infants' milk foods, and hopes to soon complete his undertaking by the issue of a similar volume which shall comprise the examination of the other milk products and such other substances as are employed in the dairy industry.

As may be seen by the contents, undersigned has not endeavored to criticise the various older methods, as yet generally in use, as this would have been beyond the range of his self-imposed task.

Moreover, there is no want of such books. Undersigned therefore refers to those previously published by Vieth, Radenhausen and himself.

It is a peculiar fact, that even in the latest chemical, medical and pharmaceutical works, old and abandoned methods are continually republished, the authors considering it apparently unnecessary to test them for their reliability.

Likewise, in the adducing of average figures regarding the composition of milk, these authors seem to be prepossessed in favor of the oldest and least exact investigations, while they neglect the more exact and, therefore, more valuable examinations of the present period.

This copying without examination (book manufacturing) is especially dangerous in analytical chemistry, and more so if the results must stand test before a court of justice, which in examinations of this kind is frequently required.

The position of an expert who has employed acknowledged inaccurate methods for his examination, is certainly not an enviable one.

The author of this small volume has therefore collected therein, for the first time, those methods which are acknowledged as being the best for scientific and practical purposes.

They excel the methods known before 1877.

- 1st. For their greater accuracy.
- 2d. For greater simplicity.
- 3d. For cheapness and economy of time.

The views expressed in this book no doubt may be modified in time, and undersigned will, therefore, at all times, be pleased to receive suggestions from others.

DR. NICHOLAS GERBER,

*Manager of the American Swiss Milk Product Co. (Limited),  
New York City.*

LITTLE FALLS, N. Y., January, 1882.

## CONTENTS.

	PAGE.		PAGE.
Introduction.....	1	<b>Microscopical Examination.</b>	
<b>NORMAL COWS' MILK.</b>		Normal Milk (with plate).....	14
General Definition.....	3	Butter Globules.....	14
Colostrum.....	3	Colostrum (with plate).....	15
Market Milk.....	3	Pus and Epithelial Cells (with plate). 16	
<b>Physiological and Other Causes</b>		Lower Organisms.....	16
<b>Influencing the Secretion.</b>		<b>Specific Gravity.</b>	
Period of Lactation.....	3	Definition.....	17
Age of Cow.....	4	Apparatus for Its Determination... 17	
Cows in Heat.....	4	Weighing in a Flask (Pycnometer)	
Race and Individuality.....	4	(with table.).....	18
Food and Treatment.....	5	<b>CHEMICAL ANALYSIS OF</b>	
Seasons.....	5	<b>MILK.</b>	
Influence of Temperature.....	5	General Rules.....	21
Influence of Weather.....	5	Reaction of Milk.....	22
Exercise.....	5	Determination of Water and Solids. 22	
<i>General Physical Properties.</i> .....	6	Determination of Ashes.....	23
<i>Chemical Constituents.</i> .....	6	Determination of Phosphoric Acid. 23	
<i>Composition of other Milk Compared</i>		Determination of Albuminates and	
<i>with Cows' Milk.</i> .....	8	Fat (with plate).....	24
<b>PHYSICAL ANALYSIS OF</b>		Determination of Milk Sugar..... 27	
<b>MILK.</b>		<b>ABNORMAL COWS' MILK.</b>	
<i>Color</i> —Normal.....	9	Colostrum.....	30
Red.....	9	Poisoned Milk.....	31
Yellow.....	10	Milk Containing Medicines..... 33	
Blue.....	10	<i>Milk as the Cause of Disease</i> (2 plates) 33	
<i>Consistency</i> —Normal.....	11	Typhus.....	34
Watery.....	11	Scarlatina.....	34
Colostrum.....	11	Tuberculosis.....	34
Phlegmy and Stringy.. 12		Anthrax.....	35
Sandy.....	12	Aptha epizootica (with plate) 35	
<i>Odor</i> —Normal.....	13	<i>Influence of Food, etc.</i> .....	37
Aromatic.....	13	Potato Distillery Swill..... 37	
Putrid.....	13	Brewers' Grains.....	38
Medicinal.....	13	Milk in Fermentation.....	38
<i>Taste</i> —Normal.....	13	Pus.....	38
Bitter.....	14	Mucus.....	38
Medicinal.....	14	<i>Adulteration of Cows' Milk</i> ..... 38	
Putrid.....	14	Watery Milk.....	39
Sour.....	14	Normal Market Milk.....	40
		Sour Milk.....	41
		Foreign Substances.....	41
		Preservatives.....	42