

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

THE MARKET MILK INDUSTRY IN NEW ZEALAND

by

R.C. SYKES

Being a dissertation presented in partial  
fulfilment of the requirements for the  
degree of M.Agr.Sc. (Dairy Tech.).

Massey Agricultural College,  
University of New Zealand.  
June, 1952.

TABLE OF CONTENTS

CHAPTER		Page
I.	Introduction	1
II.	The Development of the New Zealand Dairy Industry and the State of the Trade in Market Milk prior to 1900.	4
III.	The Growth of the Dairy Industry since 1900 and the Magnitude of the Market Milk Trade.	10
IV.	The Effect of Increases in total Population, and its Distribution between Rural and Urban Areas, upon the Market Milk Industry.	17
V.	The Effect of Twentieth Century Advances in the State of Knowledge upon the Market Milk Industry in New Zealand and upon the Level of Milk Consumption.	21
VI.	The Development of the Market Milk Industry in New Zealand 1900-1918.	27
VII.	The Municipal Control of the Milk Supply to Wellington City.	34
VIII.	The Development of the Market Milk Industry in New Zealand 1918-1930.	42
IX.	The Auckland Metropolitan Milk Council and its Regulation of the Milk Supply to Auckland City.	50
X.	The Development of the Market Milk Industry in New Zealand 1930-1939.	56
XI.	The Organisation of the Milk Supply to Areas other than Auckland and Wellington, prior to World War II.	62
XII.	The Market Milk Industry in New Zealand under Wartime Conditions 1939-1944.	67
XIII.	Regulative Control of the Market Milk Industry in New Zealand 1900-1944.	73
XIV.	The Milk Commission, 1943, and its Recommendations.	77
XV.	The Milk Act, 1944, and the Basis of the Organisation of the Market Milk Industry in New Zealand since 1944.	79
XVI.	The Organisation of the Market Milk Industry in New Zealand, and its activities, since 1944.	95
1.	The Directive and Administrative Organisation of the Market Milk Industry in New Zealand since 1944.	95
A.	Central Milk Council.	96
B.	The Marketing Department.	102
(a)	National Milk Scheme Administration.	102
(b)	The Ownership and Management of Treating Houses.	108
(c)	Local Milk Authorities.	109

Table of Contents continued.

CHAPTER	Page
II. The Co-ordination of the Supply, Collection, Treatment and Distribution of Milk for Liquid Consumption in New Zealand since 1944.	111
III. Regulative Control of the Market Milk Industry in New Zealand since 1944.	114
XVII. The Practices Pursued in the Market Milk Industry in New Zealand, and the Regulative Control thereof, since 1944.	117
I. Production and Supply.	117
II. Milk Collection.	125
III. Milk Treatment.	128
IV. Distribution.	134
V. Regulative Control.	138
XVIII. The Milk Amendment Act, 1951.	140
XIX. Summary of Progress Achieved in the Market Milk Industry in the Twentieth Century and Suggestions for Further Improve- ment.	146
XX. Summary.	157
Acknowledgements.	160
Bibliography.	161

## CHAPTER 1

### INTRODUCTION.

Milk is the most important of all foods for the human race. Throughout the ages it has been the sole food of the very young and has been part of the diet of adolescents and adults of the white races. It has been especially important to the growing and those of inferior health. Milk is a "protective" food rich in easily digestible proteins of high biological value and, in addition, contains valuable mineral and vitamin fractions essential to good nutrition. The importance of milk in the diet has been more particularly recognized in the last thirty years and special emphasis given to it by the League of Nations in an endeavour to improve the diets of the peoples of the world. New Zealand, along with other countries, has become more conscious than formerly of the value of milk during these last thirty years.

Because milk can be so important in the diet of the people of all ages it should be available at all times for consumption in adequate amounts by all sections of the population, and this is the requirement of the Market Milk Industry in New Zealand. In addition, since the food value of milk is dependent upon its composition and at the same time milk, as a highly perishable commodity, may be a carrier of pathogenic bacteria it is imperative to national well-being that the milk supply be of good composition, high bacteriological quality and free from pathogenic organisms. In association with the above, price is a most important consideration; it should be high enough to permit efficient production, collection, treatment and distribution, at all periods, of adequate quantities of safe milk of good quality and at the same time low enough to enable all sections of the community to purchase milk in adequate amounts. The services given in production, collection, treatment and distribution should ensure efficiency and economy in the practices pursued and the safety of milk to the health of consumers at all stages. At the same time, however, the services given should only be those necessary for the delivery of a safe milk of good quality to consumers such that the liquid milk industry as a whole is efficient relative to the functions required of it, and outlined above.

As a relatively young country, New Zealand has made a name for itself over the past fifty years through rapid increases in the export of dairy products to overseas markets, more especially the United Kingdom. Since World War I New Zealand, for its size and population, has come to be recognised as an important present and potential source of dairy products. Since the beginning of World War II it has been the largest exporter of dairy products in the world.

New Zealand is a country ideally suited to dairying. Although it has a relatively small human population its dairy cow population is comparatively large and it has, as above mentioned, a larger exportable surplus than any other country.

Hamilton (1944) has shown that the estimated total production of butterfat in the Dominion increased by 925 per cent between 1901-1902 and 1940-1941. He points out that there was a 97 per cent increase in the butterfat consumed within the Dominion in liquid milk and cream during the same period. This consumption of liquid milk and cream accounted for a utilisation of 16.4 per cent and 3.5 per cent of total butterfat production in these respective years.

In New Zealand the liquid milk market is only of minor economic importance to the dairy industry. Adequate liquid milk consumption, however, is socially imperative to the country and of national importance to public health. New Zealand is conscious of this, as shown by estimates of the New Zealand Dairy Board. Using a revised basis of derivation of data this Board (N.Z. Dairy Board, 1948, 1951) has estimated an increase in annual milk consumption, as liquid milk and cream, from 63.8 million gallons in the period 1934-1938 to 94.3 million gallons in 1950. These estimates show an annual utilisation as liquid milk and cream of 6.8 per cent and 8.8 per cent of total milk production in the respective periods.

From 1900 until the present time the population of New Zealand has more than doubled (N.Z. Official Year-book, 1950). Associated with the overall increase there has been a "drift" of population from rural to urban areas (Calvert, 1946). This has

brought a pronounced increase in the proportion of "urban" population and the encroaching of built-up areas into areas formerly devoted to milk production. These movements have combined to aggravate the milk supply problems arising from natural increase in population. As a consequence of this there have frequently been shortages of milk for liquid consumption in many areas, particularly in the larger centres of population at certain periods of the year. This has occurred despite the presence of areas suitable for milk production situated within reasonable distance of all centres of population in New Zealand. These areas possess a potential to supply several to many times the quantity of liquid milk demanded by the population. Only today, as a result of Government action through legislation, is the position being approached where there is available an adequate supply of milk of good quality to meet the demands of the population at all times of the year.

Since the turn of the century, great technological and practical advances have been made in the production, collection, treatment and distribution of milk for liquid consumption. Organisation, both voluntary and compulsory, has been introduced into the liquid milk industry and extended. Legislation has been introduced to effect control. With the passing of the Milk Act, 1944, developments have been most rapid since the end of World War II.

In the course of this dissertation an endeavour will be made to point out the developments that have taken place in the Market Milk Industry in New Zealand. The past and present organisation and control of the Industry together with the circumstances affecting production, collection, treatment and distribution will be reviewed and suggestions for changes in the organisation and practices put forward which, if applied, may more nearly achieve the ideal of the availability, at all times, of an adequate supply of safe milk of good quality, at reasonable price, to all sections of the community.