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# **HEALTH INFLUENCE ON THE DEVELOPMENT OF LOW FAT DAIRY PRODUCTS**

**A THESIS PRESENTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF  
PHILOSOPHY IN FOOD TECHNOLOGY AT MASSEY  
UNIVERSITY**

**GAYATRI SUSARLA**

**1994**

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## ABSTRACT

The Nutrition Taskforce (1991) recommended strategies for the food industry in order to improve the diet of New Zealanders in line with the Food and Nutrition guidelines. Recommended strategies include, to produce low fat products and to disseminate nutrition information. This thesis examines the nature of current developments in low fat products, nutrition expertise in the industry and legislative requirements related to low fat products.

Initially a survey of three supermarkets (Pak 'n' Sav, Foodtown and Woolworths) located at Palmerston North was carried out to examine the market availability of low fat dairy products and its labels. A detailed questionnaire based on product development, nutritional concerns and consumer issues was designed and mailed to 25 general food manufacturers, 11 responses (44%) were obtained. Next, a postal survey to 26 dairy companies was done and 12 companies (46%) responded. Some of the surveyed dairy companies (6) were interviewed to obtain in-depth information on survey findings.

Currently a range of dairy products with lower fat contents are available in supermarket shelves, such as low fat versions of milk, yoghurt, cream, cheese and dairy desserts. Milk with fat content ranging from 0.05% to 3.5% fat is available. Most of the surveyed food manufacturers consider the development of fat reduced products as an important area of development. Maintaining the texture and flavour in developing fat reduced products was the main quality constraint in developing low fat products. Technical information could not be obtained in the survey due to confidentiality.

The supermarket and food manufacturers surveys reveal that low fat products are targeted at women and health conscious people. However, some reduced fat products (reduced fat- milk, cheeses and dairy desserts) are most useful to consumers and some reduced fat products (reduced fat yoghurts) are less useful.

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Men may benefit the most by consuming reduced fat milk, cheeses and desserts. Older women may benefit by selecting reduced fat cream in the diet. Hence it is recommended that manufacturers should identify the need and accordingly target the products. From the survey results it can be concluded that consumer demand and an increase in diet and health awareness are the driving forces behind the development of new fat reduced products.

In general, food companies view food regulations as difficult to interpret and restrictive. A standard format for labelling the additives and nutrients was not followed by the surveyed companies. Some manufacturers tend to use the labelling as a marketing advantage. Nutrition labelling was usually offered when a claim was made, however some cheese labels that made a claim did not carry nutrition labelling. Some companies claimed to be unable to offer nutrition labelling due to expense. A standard approach to labelling has been recommended by the Food Standards Committee and the proposed food regulations is hoped to eliminate consumer confusion over labels.

Mostly the surveyed food manufacturers do not employ nutritionists and rely on people from various departments for nutrition decisions. Nutrition education is of primary importance within the food industry and a greater involvement of nutritionists in food product development and food marketing would be desirable. The Dairy Advisory Bureau, the Market Milk Federation (MMF) and the Ministry of Health are the main sources of nutrition information for dairy companies. Some companies perceive that nutrition information is not easily accessible. The MMF produces some nutrition education material, such as *Milkwise snacks* which are supplied by dairy companies to schools. Some surveyed companies are producing leaflets for consumers which do not contain much nutrition information and work more as promotion material for the products. In conclusion, the role of nutrition in product development and marketing of low fat products is discussed and a series of recommendations have been constructed.

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## ACKNOWLEDGEMENTS

I would like to express heartfelt thanks to my supervisors, Dr Juliet Wiseman, Lynley Drummond and Barbara Burlingame for their guidance, advice and continued encouragement throughout this work.

Thanks are extended to Professors Ray Winger, Ken Kirkpatrick, Mary Earle for their valuable advice and help.

I am grateful to Ms Megan Williams (DAB), Ms Barbara Burlingame (Nutrition Database, CRI) for their help in supporting the study.

The help of Mr van Hank Til, Mrs Lesley James, Toni and Leanne are acknowledged. I would also like to thank all my fellow graduate students, particularly David, Janet, Netra, Rani, Lisa, Pin, Tanya, Magesh, Sachin, Ramkumar, V.V, Khalid and Ranjan for their friendship.

I wish to extend my appreciation to Pullela and family, Venkat, Jyothi, Srinivas<sup>2</sup>, Prabhakar, Murali, Sirisha, Bharati, Padma, Ajay, Rajiv, Shashikant and Rao for their friendship and sense of humour. My deep feelings and sentiments to Janaki, Saroj, Amulu and Laxmi as they always stood as pillars behind me. I also thank Barry and Celia Robertson, Ian Maddox and Noemi for their friendship and hospitality.

My sincere thanks to my parents, brothers and family for their continued moral support and guidance throughout my life. My greatest appreciation is extended to Partha for his friendship and support and to my in-laws who always showered a great deal of love and affection which had always rejuvenated me. Hearty thanks to Sridhar for his extreme help, support and patience.

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