

INFLUENCES IN THE DEVELOPMENT OF THE CHEESE MARKET IN KOREA

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I have categorised the influences into four broad groupings:

1. Traditional manufacture
2. Basic outline of cheese manufacture
3. Changes in usage in recent years. Foodservice influences
4. Korean cheese market
  - Future of the Korean Cheese Market

1. TRADITIONAL MANUFACTURE

	EUROPE	ENGLAND	ITALY	SOUTH AMERICA	USA
Hard	Rinded cheeses, Emmenthal	Cheddar	Parmesan		Cheddar
Semihard	Edam, Gruyere	Wensleydale Colby	Mozzarella		Monterey Jack Colby
Soft	Camembert Blue vein	Stilton	Gorgonzola Ricotta	Soft white cheeses	Ricotta, Cream Cheese Cottage Cheese

Most of this cheese was made for direct consumption. There are many varieties that are unknown in Korea.

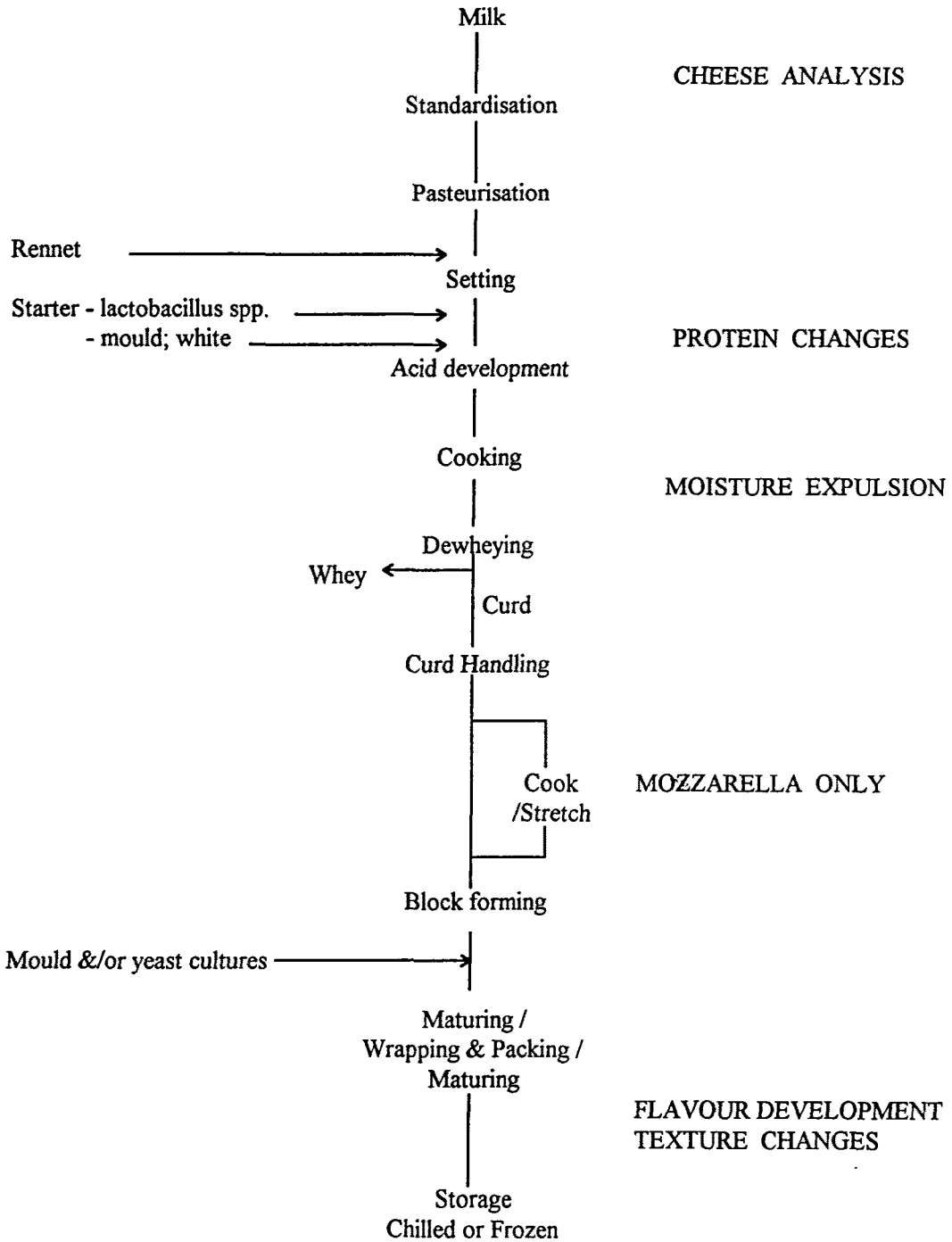
The main varieties in each country depended on the climate and expertise.

Cheese varieties have developed over the years by trial and error, for example the use of blue moulds and other bacterial varieties, to give a large range of flavours.

Distribution was limited which also helped give rise to numerous varieties.

These cheeses are still manufactured today, many in very large volumes, but it is mainly the cheddar (in processed form) and mozzarella types which have become predominant in the Asian markets.

2. GENERAL MANUFACTURING OUTLINE



### Cheesemaking, continued

The purpose of cheese making is to retain the nutritive value of milk in a more storable form. The cheese making process does this by removing moisture through the development of acidity, cooking to halt the starter action, and working the curd to achieve a texture and composition appropriate to the cheese type.

Today's markets demand flavour and texture to suit a variety of tastes so the cheese manufacturing process is very controlled with specific attention to analysis, starter, maturing process.

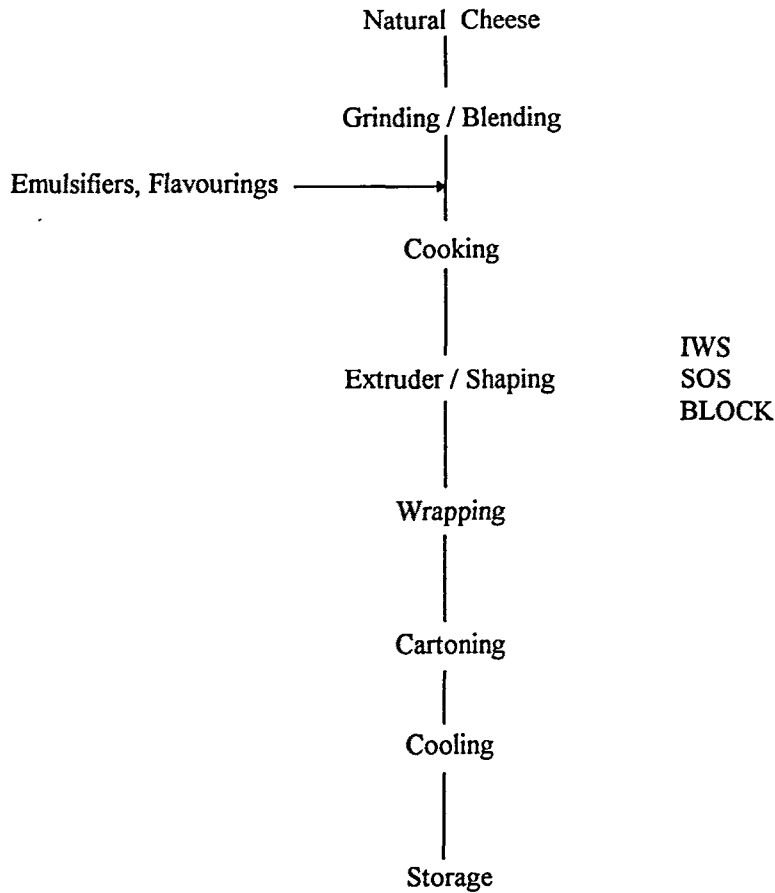
Mozzarella, for instance, is different from other cheeses in that its curd is heated and stretched in special machinery to create a stringy textured cheese of very mild flavour.

Blue Vein cheese has a blue mould added to create a distinctive flavour.

Flavour development occurs through the action of selected bacteria and moulds by allowing them to grow for definite periods of time under controlled conditions. The flavour increases with age. As the cheese matures its texture will also change, progressively getting softer as the protein structure is broken down by bacterial action.

Storage temperatures are a major factor in final control of flavour and maturity intensities which explains the importance of maturing temperatures and refrigeration in the distribution of cheese.

## Processed Cheese



- \* IWS = Individually wrapped slices
- SOS = Slice on Slice

This cheese is produced from a mixture of cheese and emulsifying salts which is cooked to about 80°C. The purpose is to heat stabilise cheese in a form more convenient for use by a consumer. It is possible to produce different shapes and functional abilities. eg slices for melting on burgers, small blocks for direct consumption.

The cooking kills virtually all bacteria in the cheese which stabilises its quality and extends its shelflife at a wider ranges of storage temperature. It explains why processed cheese is so much more adaptable to a poorly refrigerated distribution system and use at ambient temperatures.

Processed cheese technology has been available since the late 1920's and because of its shelf stability and mild flavour, has been an excellent form of cheese to build new markets, especially throughout Asia.

Processed cheese is typically mild and the variety of possible flavours, eg plain, smokey, sweet, packaging make it suitable for customers who do not know the taste of cheese.

### 3. CHANGES IN USAGE OF CHEESE

Effects of the foodservice market on cheese making over recent history.

Changes in the usage of cheese has strongly influenced the cheese making industry. These factors can be summarised as follows;

#### Traditional Usage

Direct consumption

Local preferences and specialities in cheese types

Small distribution areas

Good consumer knowledge of cheese

#### USA influence

By far, the most influential changes have been as a result of USA development

More people travel between states, franchising of foodservice outlets

Beginning of McDonalds, Pizza Hut, Dominos, Kentucky Fried Chicken

Ethnic foods such as pizzas, burgers and fried chicken are accepted into wider markets.

#### Increasing use of Cheese as an Ingredient

Cheese used more as an ingredient than directly consumed - burgers, pizzas, tacos

Food consumption outside the home increases becomes more standardised and influenced by the foodservice chains.

Giant standardised food chains forces increasing production of selected cheeses.

Mozzarella increases exponentially from early 1980's matching the growth of all the major pizza chains.

Processed slice cheese also grows exponentially to meet the growth in McDonalds, Burger King and other burger chains.

Many traditional cheeses such as camembert, swiss etc become speciality cheeses for select consumption.

Less consumer knowledge of cheese.

#### Marketing Influence of USA reaches Asia

During the 1980's, many brand names, food types began to be sold to foreign countries to broaden Companies' markets.

Developing economies in Asia leads to increasing salaries, meant many people could afford the luxuries such as television. Lifestyle changes occurred, imitating the west.

The US based foodservice chains began franchising their operations into new countries.

Countries which had never eaten cheeses before, are beginning to consume it in large quantities as an ingredient in western styled food.

#### Asian Growth

Globalisation growth in electronics, engineering and car manufacture is accompanied by similar expansion in the food industry.

The US based foodservice chains are joined by locally based pizza and burger chains.

Many Asian countries have a fledgling milk industry as a source of nutritional foods to balance the rice based menu. This acts as a springboard to supply both imported and domestic varieties of cheese and other milk products.

No consumer knowledge of cheese.

## Global Cheese Supply

New Zealand has always been an exporting country but its markets have enlarged due to the globalisation of the foodservice chains and increasing access to developing countries through international agreements such as GATT.

As the export trade has grown, so manufacturers such as New Zealand have increased the size of their factories to reduce the costs and improve output. This has resulted in a great increase in size of factories with corresponding increase in production as Companies have consolidated. This is shown in the chart and compared with the USA;

NEW ZEALAND	Number of Cheese Factories	Output per Factory (mt)	Maximum Capacity (mt)
1970	80	1250	100,000
1980	26	4000 + 320%	104,000 + 4%
1994	12 - 54%	16500 + 415%	200,000 + 100%
USA			
1984	680	3900	2.6 million
1994	450 - 34%	6435 + 65%	3 million + 15%

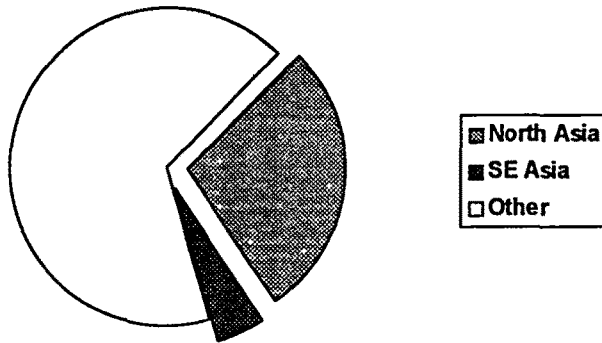
International milk product supply is increasingly coming from supply hubs. These hubs are usually countries with a strong low cost agricultural sector, dependent on low manufacturing costs and requiring high technology to provide consistent quality across a wide range of countries. Examples are New Zealand, Australia, Denmark, increasingly USA.

In such situations, the importing countries' local milk supplies, such as in Korea and Japan, are directed to fluid milk supply and fresh milk products such as yoghurt. They are complemented by the cheaper bulk imported supply of cheese, milk powders into the manufacturing, food ingredient areas.

## NEW ZEALAND CHEESE SALES

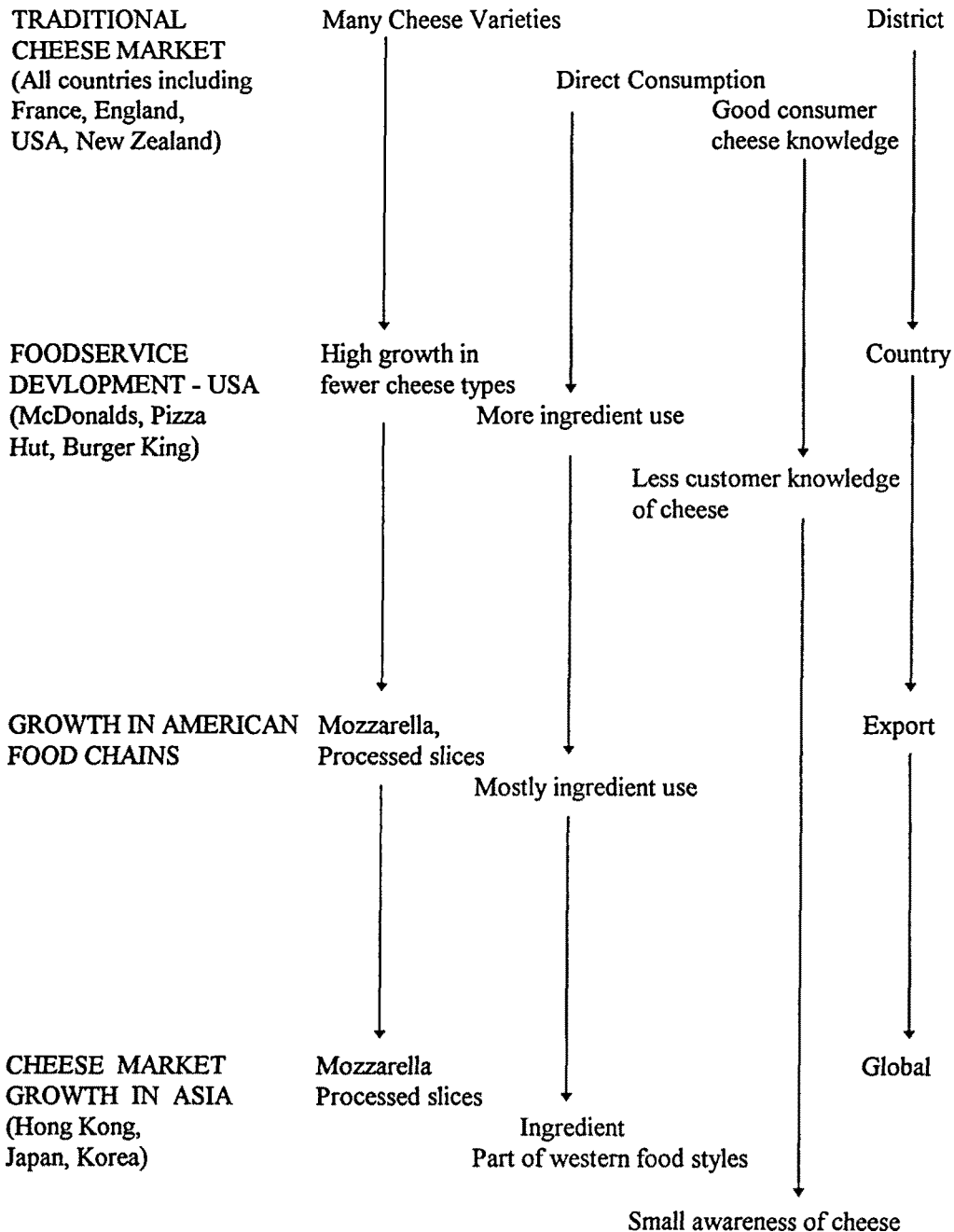
The importance of Asia to the New Zealand Dairy Industry is shown in the chart below.

### New Zealand Cheese Sales to Asia



North Asia (Japan & Korea) = 29 % of New Zealand's cheese sales (1994 figures)  
South East / South Asia = 5 %

CHANGES WITHIN THE CHEESE FOODSERVICE SECTOR





#### 4. KOREAN CHEESE MARKET

The strongest influence on the nature of the Korean market for cheese is the branded, franchised western fast food service companies.

They have;

- created a market for cheese, where none existed.
- influenced the way in which cheese is used.
- stimulated a generational growth pattern which will continue
- positively influenced the supplying export countries in their cheese manufacturing and cheese quality.

Growth in cheese consumption in Korea has increased on average more than 12 % per year since 1990.

Cheese prior to January 95 was manufactured domestically. Mainly in the form of cheddar as a basis for processing and increasingly mozzarella for the growing pizza market.

The Uruguay round of GATT talks in 1994 resulted in Korea opening its markets to imported cheese as of January 1 1995.

This immediately made domestic cheese uncompetitive compared to world prices and resulted in a change in amount and type of domestic cheese manufacture.

Current local natural cheese volumes are in the order of 3000 mt, most of which is in the form of mozzarella. Cheese for processing is now, primarily imported.

#### FUTURE OF KOREAN CHEESE MARKET

I see it continuing to be strong, in a manner similar to that in Japan where cheese has been present for many years.

The high mozzarella growth in Korea has been the result of the increase in number of Pizza Companies and number of outlets for each company. This growth will consolidate as available markets become saturated with Burger and Pizza companies. Competition is increasing and volume sales per outlet are now important.

Cheese sales at retail will increase, especially as the growth of successive generations will reinforce the taste for cheese.

I predict more variety of cheeses will become available apart from the slices you see now.

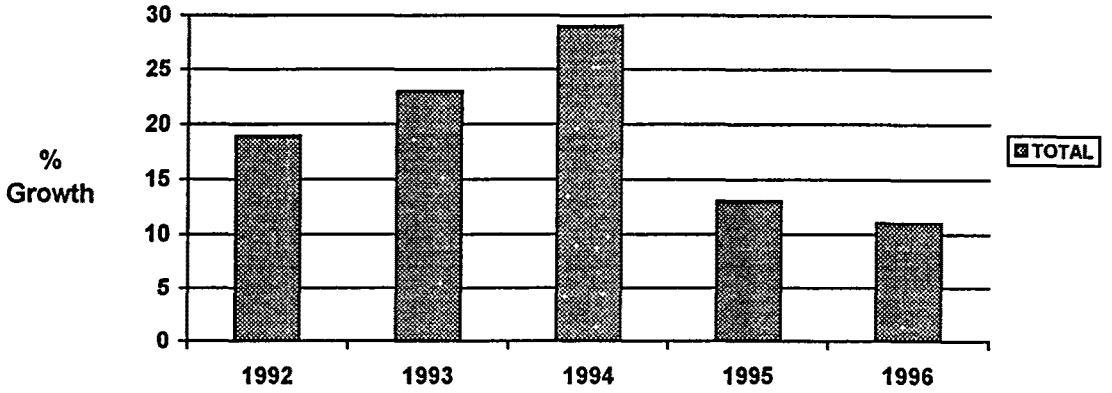
Increasing Western influence on food will mean more opportunities to eat foods such as Italian and French styles, both of which use cheese as an ingredient. Bakeries will make more use of cheeses such as cream cheese and gouda styles, both of which are now unfamiliar to consumers.

Cheese will mostly be consumed as an ingredient.

<b>KOREAN CHEESE MARKET</b>	
<b>Total Cheese Sales, 1996</b> (Local Dairy Company sales)	15000 mt
<b><u>IMPORT CHEESE SHARE</u></b> (relating to Dairy Co sales)	
Imported Cheese	74 % approx *
Local Cheese	20 % *
	*less than 100% due to processing yield
<b><u>MARKET SHARE</u></b>	
Natural Cheese	64 %
Processed Cheese	36 %
Foodservice	65 %
Retail	35 %

GROWTH IN THE KOREAN CHEESE MARKET

Percentage Growth  
in Cheese Sales



Cheese Sales  
by year (mt)

