MARKET EVALUATION:
A SYSTEMATIC APPROACH -
FROZEN GREEN SPROUTING BROCCOLI

R. L. SHEPPARD

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ACKNOWLEDGEMENTS

The first part of this report consists of a review/paraphrase of appropriate chapters of "Marketing Management: Analysis, Planning and Control" (3rd Edition) by P. Kotler, published by Prentice/Hall International, Inc., London, 1976. This book presents a comprehensive view of marketing, covering the full range of aspects with which the firm should be familiar. In order to obtain a more complete view of marketing and marketing management, this book is highly recommended.

The second part of the report has been prepared with the assistance of Mr C. H. Rich. His help with the review of the market potential for frozen green sprouting broccoli is gratefully acknowledged. The consumer survey was carried out by Mrs A. Kotoul and I am grateful for her able assistance. Mr R. J. Brodie has also assisted with his helpful comments during preparation of the study. My thanks also to my wife, Susan Sheppard, who ably typed the report.
SUMMARY

This paper presents, in Part One, a review of some basic marketing concepts involved in market and demand identification. The second part of the paper applies some of the concepts to a market evaluation of the prospects for frozen green sprouting broccoli.

Two major market types are identified. These are the consumer and industrial markets. The industrial market can be further subdivided into the producer and reseller markets. Each market type has characteristics that allow it to be considered significantly different from the other types and, therefore, requires a relatively unique approach. The markets are described in terms of four distinct aspects of their activity. Products, which move through these markets, are defined as goods. These goods can be categorised into relatively distinct groups which require dissimilar marketing approaches. In order to identify the marketing approach most likely to be successful, the objectives of the purchaser must also be identified. These objectives will be fulfilled through a purchasing organisation which carries out purchasing operations. The characteristics of these four areas (goods, objectives, organisation and operations) will be significantly different between the different market types. Marketing activity can therefore be designed to take full account of these differences and therefore ensure maximum return on the marketing effort.

Having identified the type of market with which the marketer is concerned and the type of marketing action indicated, the emphasis must then be on identifying the level and type of demand likely to be available. The objective is to measure the possible level of demand given varying sets of circumstances related to product price, competitor prices, promotion, quality, service, etc. Demand sensitivity analysis can also be undertaken to determine the likely responsiveness of the market to changes in specific variables.
Demand identification must take place with two distinct time periods in mind. A short-term forecast (up to one year) is essential for production activity decisions, while a long-term forecast is essential for planning major production facility changes. Short-term, or current, demand forecasts are often made from forecasts of demand for particular product classes with the refinement of the forecast until the individual product is isolated. A further method involves assessing total market potential for a product. This involves a review of all potential users of a product class and an assessment of the likely share of the potential market that can be achieved.

Longer-term demand assessments are most commonly made through use of a consumer survey. Other important methods are sales personnel forecasts, purchase of outside expertise, market testing, and statistical analysis.

The use of a marketing orientation in a competitive market is considered essential. The design of products to meet identified consumer requirements is the crucial element of a marketing approach. A product orientation is not compatible with achievement of a significant level of business success, especially in a competitive field.

Part Two of the paper presents a report on a study of the market potential for frozen green sprouting broccoli. The market types identified covered the range from the consumer market through reseller market to producer market. The major markets are the consumer and reseller markets. A full survey of Christchurch supermarkets was carried out in order to assess the current reseller market position and the likely future for the product in this market. This survey involved discussion with the supermarket frozen goods manager and independent research into the position of frozen green sprouting broccoli in the vegetable market area. It was assessed
that a significant potential for the product exists and that current
demand from the reseller market could be stimulated through increased
promotion at a retail level.

The producer market analysis involved a review of the restaurant
trade to assess the present and likely future usage of frozen green
sprouting broccoli in this area. A significant potential demand for
the product was identified from restaurants already using frozen
vegetables and those with a high green vegetable requirement (e.g.
Chinese restaurants), especially in the period when fresh broccoli
is in short supply. As a result of the typical nature of a producer
market, expansion of sales is likely to be more difficult than in the
reseller market and careful attention will have to be paid to product
quality and supply certainty.

A very limited survey of the consumer market was undertaken.
A consumer survey at point of sale was the method employed. As
the product has only a low sales throughput at present (primarily due
to low supplies) a significant consumer representation was not able
to be obtained. No firm conclusions can therefore be drawn from
this section of the study.

Overall, a significant market potential for frozen green sprout-
ing broccoli does appear to exist. The major area of demand will be
from the reseller market and potential exists in the producer market
for increased sales.
CHAPTER 1

INTRODUCTION

What is marketing? Various definitions of the concept have been advanced, however, that of Kotler (1976), is probably the most useful: "Marketing is human activity directed at satisfying needs and wants through exchange processes". The most important element of this definition is its orientation on what is required, not on what is produced. Marketing involves matching "needs and wants" with production potentials. The identification of the "needs and wants" is the first step; the fulfillment of those "needs and wants" logically follows.

The identification of "needs and wants" is an area where different approaches may be appropriate. It may be that demand for a particular product has not been expressed in the market but the underlying desire for the product is present. The identification of this underlying desire (need and want) is the first step in an entrepreneurial breakthrough into a new business area. In other cases, there may in fact be no demand for a product and no underlying desire. The task of marketing is then to create a desire for the product through changes in the environment or exposure to the product. This latter activity comes under the classification of marketing management. To return to Kotler:

"Marketing management is the analysis, planning, implementation and control of programs designed to bring about desired exchanges with target markets for the purpose of achieving organisational objectives. It relies heavily on designing the organisation's offering in terms of the target market's needs and desires and using effective pricing, communication and distribution to inform, motivate and service the market".

1.
This paper is not directly concerned with marketing management. It is designed to put forward a method of assessing "needs and wants"; a method that can be used in assessing demand for products before production is undertaken. The paper does not attempt to cover all the aspects involved in marketing, as each product will require a specialised approach. It is more concerned with a general approach to identifying potential and describes, in the first part, a technique that many organisations may find appropriate. The second part of the paper illustrates the application of the technique to an investigation of the market potential for frozen green sprouting broccoli. It must be emphasised that the technique put forward is designed to identify potential. In order to assess possible market quantities, further research of a much more intense nature would be required. This would involve in depth consumer surveys and competing product evaluation.
PART ONE

CONCEPTS IN

MARKET EVALUATION
CHAPTER 2
MARKET IDENTIFICATION

The first step in any market evaluation must be the identification of the type of market that is to be approached. As it is apparent that a market evaluation is to be undertaken with some particular type of product in mind, the type of market with which the investigator is concerned should be apparent. This preconceived target market type should not be taken as an exclusive orientation, however, as often very similar products can be required by different market types. The value in identifying the market type is found in the resulting ability to make hypotheses about the important characteristics of the market.

Markets can be divided into two general classifications based on the differences found in buyer orientation in each market type. The two types are the consumer market and the industrial market. Within the industrial market, two sub-sections can usefully be identified: the producer market, and the reseller market. In each of these markets, the buyer is interested in purchasing for a different purpose. In the consumer market, products are bought for final consumption; the producer market buyer requires products for use in the production process; and reseller market buyers are looking for goods that can be resold in their present form.

In order for any classification system to be useful, it is necessary that the differences between the classes be significant from the point of view of the user of the classification system. The placing of a market in a particular class, therefore must result in the valid assumption that certain significant characteristics can be attributed to that market; characteristics which are significantly dissimilar from those of markets classified under a different heading. The following sections review the characteristics of particular market types.
2.1 Consumer Market

2.1.1 Goods

The range of goods available in the consumer market is extremely wide. It is therefore useful to try to categorise the goods under descriptive headings. Such a system could be as follows:

* Durable goods
* Non durable goods
* Services

Alternatively, goods could be classified based on consumer's buying habits:

* Convenience goods
* Shopping goods
* Specialty goods

Placing the particular good that a marketer has in mind into a particular category of goods is very important. If a good is thought to have the characteristics of a particular group of goods, or those characteristics are assigned to the good, a particular line of marketing activity will be indicated based on the consumer reaction to goods in that group.

2.1.2 Objectives

In order for a marketer to direct marketing effort effectively, it is essential that some understanding of buyer objectives be achieved. In the consumer market, buyer objectives refers to the needs and wants of people and the identification of the basis of those needs and wants. Once this identification has been carried out, it is possible to direct marketing effort towards placing products at a point where the objectives of purchase are being met by the products.
2.1.3 Organisation

In order to target market activity effectively, it is essential that the purchasing organisation be identified. In the consumer market, this organisation is usually the family. Within the family, there will be decision-making units. Different products will require marketing aimed at different decision makers. In addition to this type of organisation definition, it is necessary to have a precise view of the characteristics of the families in the market geographical area; for example, families with children will have different purchase requirements than those without children. Also the marketing strategy employed will appeal differently to people according to their family status.

2.1.4 Operations

Consumer buying operations will differ according to the type of purchase being considered. In order for marketers to design marketing strategy, it is necessary to have some knowledge of the particular buying operation that will usually involve the product with which the marketer is concerned. This involves consumer research to identify the sequence of events that makes up the purchase operation.

2.2 Industrial Market

The industrial market can be subdivided into the producer and reseller markets.

The producer market is comprised of buyers who are purchasing inputs for further processing operations. These inputs may be used in the processing operation, e.g. welding equipment, or may be
an input to the final product. In either event, the buyers are those who are using the product in an operation designed to produce goods for another market further down the line.

The reseller market deals in goods that are to be transferred to buyers with no change in the form of the goods; such transactions to be made at a profit.

2.2.1 Goods

The goods of the industrial market vary over a wide range also. An attempt should be made to classify the goods according to the use to which they are put in the producer market area. In the reseller market, enterprises can be classified according to the range of goods carried.

The marketing mix should be adjusted according to the type of good with which the marketer is concerned. It is probable that very different types of marketing will be required for the different types of goods as the key variables for the particular goods may well be very different.

2.2.2 Objectives

The objective of the buyer in the industrial market is always to obtain the best value for money. The type of good required is usually fixed; the most important variables are quality consistency and price. Quality consistency requirements may vary from one product to another, but price will always be a prime consideration. (Included in quality in this context are the elements of dependability, service, delivery time, etc.). Price is particularly important in the reseller market, where margins are often low. Where products are very similar in price and quality, some elements of individual buyer preference may become relevant, however, and the marketer must take this into account.
2.2.3 Organisation

In the industrial market, buying organisations are usually highly structured and formalised. Buying proceeds through a formal pattern and decisions are made according to rules. However, the buying department is influenced to a large extent by other downstream departments in the organisation and by consumer demand. As a result, there can be many influences working on the buyer in the buying department. The job of the marketer is to identify the most important influencing area (and individual, if possible), understand the buying procedures and design the most useful method to favourably influence the buying decision.

2.2.4 Operations

There are three types of buying situation that involve different types of buying operations. Where a product to be purchased has not been purchased before, the buying operation will be complex, involving many people both within the buying organisation and the rest of the company.

The second type of buying situation is that where there is the need for an alteration to the product previously purchased. Although the product is still essentially in the same class as previously, some modification is considered desirable. This type of purchase will involve some degree of participation by a range of buyer involved people, but the decision will not be as widely reviewed as in the first situation.

Purchase of identical products to replace those previously used is the third type of buying situation. This involves reordering goods from a particular supplier or from a group of suppliers previously identified.
CHAPTER 3
DEMAND IDENTIFICATION

Once the marketer has established the type of market in which he is involved, the next step is to identify the type and level of demand that exists in the market, for the product (or product type) with which the marketer is concerned. If the product is a new one, different steps will need to be undertaken to identify the possible market, than if the product is already well established. The aim, however, is the same. The marketer needs to know what level of demand is possible, given varying sets of circumstances related to product price, competitor prices, promotion, quality, service, etc. Given some idea of the likely demand under one set of circumstances, information relating to the sensitivity of demand to changes in the variables needs to be established. It is only with this sort of information that a production process can be successfully planned to capitalise on the opportunities provided by the market.

The time factor is also important in the analysis. Two types of demand identification are required; short term forecasts (up to a year) provide information on which a year's activity can be based; longer term forecasts provide information which can be used to evaluate whether an expansion or establishment operation should be undertaken.

3.1 Estimating Current Demand

Demand for a particular product, depends on the total market for the class of products and the share of that market held by the particular product. In addition, the place of the class of products with respect to other product classes must also be considered. Evaluation of the demand for the product must therefore commence
with a view of the demand for the range of product classes, that could be thought of as competing for the same purchasing dollar of the product users.

Once having established the likely total demand for the full range of product classes that can compete with the product in question, it is necessary to decide on the likely share of each product class. This enables some conclusions to be drawn as to what the volume of product sales is likely to be in the particular class which the product is in. With this information in mind, estimates of product share within the class can be made and so on to actual product volume estimates.

3.2 Estimating Future Demand

A range of methods is available to assist with estimating future demand. Some methods are more suited to particular markets than others and the use of most of these methods depends on the availability of market information.

Common methods of market demand forecasting are: the consumer survey, combined forecasts by sales personnel, outside expert opinion, market tests, and statistical analysis.
CHAPTER 4

CONCLUSION

The marketer must establish a clear view of the type of market he is interested in servicing. With the particular market type in view, and with due consideration to the characteristics of the market type, the marketer must design a technique for establishing the market demand for the product. Based on this analysis, the elements involved in production, servicing, pricing, distribution, promotion, etc. activities can be co-ordinated. Marketing strategies are developed that ensure the best possible return from sales of the product and feedback mechanisms are designed to ensure that product demand continues and new opportunities are identified for exploration.

This paper concentrates its attention on the market identification and market demand assessment aspects of marketing. In order to build on this foundation, attention must be directed towards segmenting the market into areas with unique features and planning the activities of the firm to effectively capitalise on the opportunities identified. It is at this point that emphasis must be given to designing the most appropriate products for the different market segments and formulating the marketing strategies that will be the most effective in achieving the best possible product returns. Once the planning has been completed, a key factor is to maintain control over the marketing system (including product development) to ensure that changing circumstances are met with appropriate action. The total design of the firm should revolve around the use of the marketing concept. In a competitive environment, there is no place for the production oriented company, producing products that may or may not be required in the market. A marketing orientation is essential for success.
PART TWO

AN ASSESSMENT OF THE MARKET POTENTIAL FOR FROZEN GREEN SPROUTING BROCCOLI IN THE CHRISTCHURCH URBAN AREA
CHAPTER 5

THE ENVIRONMENT

Green sprouting broccoli is a relatively new entrant to the New Zealand vegetable market. Although it has been grown in New Zealand for some years, it is only over recent times (the last three years) that it has become a significant feature of the green vegetable market. Its rise in prominence has largely resulted from increased growing of the product, increased offerings on fresh vegetable markets and a consequent stirring of public interest. In other words, there has been very little, if any, marketing effort put into the product, yet sales have grown significantly and reasonable returns are being achieved by growers.

In line with this expansion, there has been a growth in the production of processed broccoli. Frozen green sprouting broccoli has been produced in New Zealand for approximately five years. The increase in demand for fresh broccoli has been reflected in an upsurge in sales of frozen broccoli to the point where most supermarkets now stock the product. As there appeared to be a continuing interest in the product, it was decided that frozen green sprouting broccoli would be suitable to study from the point of establishing the potential demand for it. This is especially so in view of the continuing increase in production and the likelihood of more farmers becoming involved in growing broccoli, in response to present attractive price levels.

The study, which is reported in this section of the paper, is not intended to be a definitive analysis of the market, but can serve as a basis for further in-depth research in the area. Suitable methods of market analysis have been applied and it is intended
that the methodology used serve as an example of the type of work required in analysing the market for other products. Some general conclusions, with regard to frozen green sprouting broccoli, have been drawn which should be useful to planners in this market area.

In order to constrain the investigation, Christchurch was designated as the market area and therefore, the results only strictly apply to Christchurch. The general conclusions are, however, likely to be applicable over all New Zealand and the methodology is applicable anywhere.
CHAPTER 6

MARKET IDENTIFICATION

A food product can have the full range of market types available to it. In order to understand the situation, it is essential that the particular type of market, with which the marketer is faced, be clearly identified and its characteristics considered.

6.1 Consumer Market

Food can obviously be sold in a consumer market. As this is the market where the product will move to eventually in any case, it is essential that this type of market be understood. In order to achieve this, it is necessary to be able to place the product in the appropriate category of consumer products. A decision must be made as to whether the product is a durable, non durable or a service. In this case, the product (frozen green sprouting broccoli) would be classified as a non durable. It is probably used rapidly (although, being frozen, there are opportunities for extended storage), and is therefore purchased frequently. The reseller margin on the product is likely to be small, and brand loyalties may be significant. In addition, availability of the product through many selling locations is indicated.

Under the second possible classification system, the product could be thought of as a convenience good, a shopping good or a specialty good. In general, it is suggested that frozen green sprouting broccoli is a convenience good; although because of its relative newness, it may still have some characteristics associated with shopping goods.
With these classifications in mind, the marketer can make some decisions about the product and identify some areas for further investigation. For example, availability of the product in many stores would seem to be indicated and investigation of a useful pack size for a convenience good would follow from the classification.

Having decided on the product type, attention must be paid to the objectives of the consumers. Product promotion which leads consumers to fulfill their objectives through purchase of the product, can therefore be undertaken. It may be considered that consumers have an objective of variety in their diet; therefore, the promotion of frozen green sprouting broccoli as a provider of variety would be indicated. An objective of higher social position may be identified; promotion of the product as a luxury item would therefore be indicated. Objectives of consumers, in different market areas, may be different, therefore product promotion, pricing and placement must take this into account.

The buying organisation also needs to be identified. In this case, the 'housewife' is probably the major buying force. Promotion and pricing activity, as well as product development and product placement should be directed toward satisfying the objectives of the housewife.

The buying operation is likely to be associated with a regular shopping exercise. It is therefore essential that the product be identified to the housewife prior to such an exercise. This identification could take the form of advertising of the attributes of the product, emphasising any unique characteristics, and providing information as to where the product is available. In order to ensure that the product is purchased again, there should be adequate follow-up information either at the point of purchase or on the packet, to ensure that preparation instructions are available and that the product fulfills the identified objectives.
6.2 Producer Market

Frozen green sprouting broccoli can be identified as an input into a producer market. This market involves the restaurant trade and caterers. The product can be identified as one that enters the market completely as a raw material of the final output (prepared food).

Buyer objectives in this market may range from a "quality first" orientation, through a "price-quality trade-off" to a "price only" outlook. The particular objectives of the producer need to be considered in the development of a marketing strategy.

The buying organisation is likely to differ according to the size of the producer and therefore will need to be identified for each target buyer. The buying operation will also differ based on organisation size. More importantly, the type of operation will be largely influenced by the product. Frozen green sprouting broccoli is a relatively new product and is therefore likely to come under very close scrutiny before buying takes place. This means that considerable effort must be expended to ensure the initial introduction is successful, in order to achieve follow-up sales.

6.3 Reseller Market

A substantial reseller market for frozen green sprouting broccoli also exists. This market is made up of supermarkets and retail stores and the characteristics of such establishments need to be fully understood. In particular, the method of allocating space to products must be taken account of and activity adjusted accordingly.

Supermarkets allocate shelf space based on the turn-over of the goods. Margins on goods are low and therefore profitability depends
on the maintenance of a high turnover level. With this objective in mind, marketers can tailor the product to suit the situation. For example, packets of frozen green sprouting broccoli could be kept to a slightly smaller size than consumer requirements, in order to keep turnover up.

In order to gain access to supermarket shelves, careful consideration of the supermarket buyer must be undertaken. Products must have an identified consumer demand and/or there must be an identified means to stimulate demand (e.g. in-store and media promotion). This is especially so where the product is new. Follow-up activity to ensure continued sales is also of critical importance.

6.4 Summary

Frozen green sprouting broccoli is sold in the consumer market, the producer market and the reseller market. It is a relatively new product and therefore has special needs, in terms of its introduction. Consumers must be introduced to the product, as a product that will satisfy their objectives and this introduction must be followed up by relevant information to support their purchase decision.

Producer objectives must be ascertained in order to place the product effectively in this market. A different type of product may be required by each producer and it therefore should be designed with this in mind.

The supermarket is the predominant reseller market. The characteristics of high turnover and low margins are important in this area and the product and product promotion and price should take this into consideration.
7.1 Fresh Broccoli - a Competitor

Discussions were held with the auctioneer of broccoli at McFarlane and Growers Fruit and Produce Auctioneers and the following has largely resulted from those discussions.

Supplies of green sprouting broccoli are obtained mainly from Christchurch's Marshlands area and from Oamaru, with sporadic supplies from the Nelson region. The season lasts from February to June for Christchurch growers, with a peak in March, and from June to September for Oamaru supplies.

Prices for the 1980 season have averaged about $1.00 per kilogram for 6 kg packs which is a slight rise in price from the previous year.

Supplies have been rising by about 50 per cent each year and they are expected to rise by 25 per cent in the 1981 season. Farmers are growing more broccoli because of better varieties becoming available and thus enabling the achievement of higher quality and increased prices. Buyers like tightly cropped heads of broccoli and the new varieties are providing them. Farmers would grow other green vegetables, such as cabbage or spinach, which have a similar growing season, if they did not grow broccoli. Silverbeet, cabbage and cauliflower were identified as significant competitors with broccoli, in the market, with buyers moving to these vegetables when broccoli supplies were low and the broccoli price relatively higher.
Average 1980 broccoli sales for the Christchurch area through the markets was:

Two hundred 6 kg cases through 'McFarlane and Growers Ltd' i.e. 1200 kg/week

One hundred 6 kg cases through 'Market Gardeners Ltd Co-op' i.e. 600 kg/week

The season lasts for nearly six months, which means a total of approximately 47 tonnes of fresh broccoli was sold through the markets, worth approximately $47,000 to growers. Throughput in 1981 is expected to be close to 54,000 tonnes, according to trade estimates.

7.2 Analysis of Reseller Market Demand

7.2.1 Identification of Outlets

It is important to identify or define the outlets from which a product is, or will be, resold. In the case of a new product, little will be known of the outlets to be used and, therefore, an outlet search will need to be conducted.

Outlets can be grouped into various categories with the primary aim of selecting the right outlet to reach the 'target market'.

There are various sources for obtaining a list of the outlets available and the specific members of each group. A brief listing follows:

- Yellow Pages in a local Telephone Directory
- Wises New Zealand Post Office Directory
- New Zealand Book of Who's Who
- Trade Journals
- The Department of Trade and Industry
- The New Zealand Chamber of Commerce

The source used for identification of outlets for frozen green sprouting broccoli was Wises Post Office Directory and the 'Yellow Pages'. The outlets were supermarkets stocking a full range of consumer goods from hardware to frozen foods. The search identified names, addresses and telephone numbers of 28 supermarkets in the Christchurch Urban Area. (The full list appears in table 2).

Supermarkets were considered to be the only outlets which would be handling the product in significant volume at present. Corner stores, or grocers, were thought to be unable to stock such a specialty item because of lack of space, low throughput of customers and low product turnover. In addition, the relative newness of the product was thought to mean that only large operators would be handling it.

7.2.2 Supermarket Survey Method

There are various criteria to be met when judging which type of survey to use in a particular situation. These can be defined as:

(i) complexity - More complex questions can be asked by using personal interviews where there is close rapport between interviewer and respondent. Telephone interviews are less flexible while mail interviews are the least flexible, although with well-developed instructions relatively complex questions can be asked.
(ii) amount of data - Personal interviews can, in general, be longer than telephone or mail surveys.

(iii) accuracy of the resultant data - Accuracy will depend on the type of questions asked using each mode of questionnaire. Some personal questions are answered more accurately by mail where a respondent can be treated as anonymous and therefore will not feel inhibited.

(iv) interviewer effects - Personal interviews are highly susceptible to interviewers putting their own interpretations, feelings and bias to the results.

(v) sample control - Telephone surveys do not necessarily have an exhaustive source list as not everyone is on the phone. Mail questionnaires run into similar problems with the complexity of devising source lists.

(vi) time requirements - Telephone surveys generally require the least total time to complete. Personal interviews take more time because of distance between interviews and setting up of appointment times. Mail surveys tend to take the longest time and may require follow-up attempts because respondents do not feel obliged to answer the questionnaire.

(vii) response rate - Personal and telephone interviews generate a higher response rate than mail surveys because of call-backs.

(viii) cost - The cost of the survey varies with the type of interview, nature of the questionnaire, the response
rate required, the geographic area covered and the time at which the survey is made. Personal interviews are generally more expensive than the other two approaches, however, for short interviews the relationship may not hold.

A summary to the ability of survey techniques to handle various situations is given in Table 1.

**TABLE 1**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Mail</th>
<th>Telephone</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ability to handle complex questions</td>
<td>Poor</td>
<td>Good</td>
<td>Excellent</td>
</tr>
<tr>
<td>2. Ability to collect large amounts of data</td>
<td>Good</td>
<td>Fair</td>
<td>Excellent</td>
</tr>
<tr>
<td>3. Accuracy of resultant data</td>
<td>Good</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>4. Control of interviewer effects</td>
<td>Excellent</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>5. Degree of sample control</td>
<td>Fair</td>
<td>Fair</td>
<td>Excellent</td>
</tr>
<tr>
<td>6. Time required</td>
<td>Poor</td>
<td>Excellent</td>
<td>Fair</td>
</tr>
<tr>
<td>7. Probable response rate</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>8. Cost</td>
<td>Good</td>
<td>Good</td>
<td>Poor</td>
</tr>
</tbody>
</table>

The initial survey in this case involved a telephone survey of all the supermarkets represented in the Wises Post Office Directory and the 'Yellow Pages'. (See Table 2).

---

### TABLE 2
Supermarkets Surveyed

<table>
<thead>
<tr>
<th>Supermarket</th>
<th>Frozen Green Sprouting Broccoli Stocked</th>
<th>Fresh Broccoli Stocked</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
<td>Now</td>
</tr>
<tr>
<td>Opawa Super Value</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Russley Super Value</td>
<td>#</td>
<td>o</td>
</tr>
<tr>
<td>City South Super Value</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Bishopdale Super Value</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Century Super Value</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Garden City Super Value</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Lincoln Road Super Value</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Haywrights Super Value (North)</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Hornby Super Value</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Seaview Super Value</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Wairakei Super Value</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Ilam Super Value</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Haywrights Super Value (Riccarton)</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Barrington Park Super Value</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Northlands New World</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Bishopdale New World</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Clarksons New World</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Stanmore New World</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>City New World</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Redcliffs New World</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Fendalton New World</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Riccarton Woolworths</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>New Brighton Woolworths</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Bishopdale Woolworths</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Shirley Woolworths</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Hornby Woolworths</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Rowley Avenue</td>
<td>#</td>
<td>x</td>
</tr>
<tr>
<td>Riccarton New World</td>
<td>#</td>
<td>x</td>
</tr>
</tbody>
</table>

* indicates have stocked or will in the future.

x indicates have not stocked or unwilling to stock in the future.

? indicates a willingness only if market conditions change.

Survey conducted in August 1980.
A brief checklist was drawn up covering the points on which information was required. This was not a formal questionnaire as no specific questions were asked of each respondent but rather a more personalised approach was adopted, enabling certain areas to be covered in more depth, depending upon the respondent.

The checklist for the telephone survey follows:

(i) Stocking situation:
   Is fresh broccoli stocked?
   Is frozen broccoli stocked? What brands?

(ii) Sales:
   Past, present and future level
   Prices
   Are sales satisfactory?

(iii) Effect of other vegetables on frozen green sprouting broccoli sales.

(iv) Consumer response

(v) Future possible changes

The respondent in each case, was either the Manager of the store or else the 'person in charge of frozen vegetables'.

Following this brief survey four supermarkets were selected for more indepth personal interviews. The four supermarkets were selected based on:

- their sales of frozen broccoli: a range of sales levels was selected.
- geographical area: a broad coverage of Christchurch was required.
- 'chain' status: coverage of more than one chain was required.

Again, no structured questionnaire was used, but another checklist was devised based on the results of the telephone survey. The checklist covered the areas mentioned before in more detail, with the following new aspects added:

- fluctuations in supply and demand
- relationship of frozen to fresh supplies
- consumer response to price cuts and promotion
- traits of consumers

7.2.3 Survey Results

(i) Stocking Policy - Present

Twenty-four of the supermarkets had stocked frozen green sprouting broccoli before and four had not. Reasons given for not stocking the product were:

(a) Lack of freezer space; and
(b) Had never been approached to sell it by a sales representative

Eleven supermarkets had stocks on hand at the time of the survey and 18 did not. Of those who did not have stocks on hand reasons given were:

(a) Four supermarkets had a shortage of freezer space;
(b) Four had a lack of supply;
(c) Four thought sales levels were too low;
(d) Three supermarkets did not stock it because of a head office decision;
(e) One only stocked it if someone specifically asked for frozen broccoli.
Sales seemed to be relatively stable throughout the year although two supermarkets from the indepth interview experienced an increase in sales during the period October to February (when fresh broccoli was unavailable).

Six supermarkets had experienced a shortage of supplies of Watties frozen broccoli during the year. It appeared that General Foods were supplying only their best customers when stocks were low.

**Future**

When asked if they would stock frozen broccoli in the future 16 respondents said, 'yes if it was available'; eight said 'may-be, if people asked for it' or 'if it was promoted' and, again with one group of chain stores, it was a head office decision; three said 'definitely no, because of lack of freezer space' while one would not stock again because of the lack of popularity with its clientele. This supermarket was the only one not stocking fresh broccoli (for the same reason), (see Table 2 for results from each supermarket).

(ii) **Prices**

A comparison of retail prices between frozen vegetables has been constructed. This is given in Table 3. Prices of some selected fresh vegetables are given in Table 4. Fresh vegetable retail prices appear courtesy of 'The Press' weekly surveys into fresh vegetable prices. The frozen green sprouting broccoli price (of \$3.28/kg in the case of Watties brand and \$3.15/kg in the case of Edgells (Australian) brand), compared favourably with fresh prices at various times depending on the fresh supply situation.
In most of the supermarkets the price of the fresh broccoli was cheaper than the frozen form on a per kilogram basis.

TABLE 3

Prices of Frozen Vegetables (at time of the survey)

<table>
<thead>
<tr>
<th>Vegetable</th>
<th>Retail</th>
<th>Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen Broccoli</td>
<td>3.28</td>
<td>2.73</td>
</tr>
<tr>
<td>(Fresh Broccoli)</td>
<td>2.70-2.99</td>
<td></td>
</tr>
<tr>
<td>Sweet Capsicums</td>
<td>3.54</td>
<td>2.95</td>
</tr>
<tr>
<td>Crumbled Mushrooms</td>
<td>3.13-3.78</td>
<td>3.15</td>
</tr>
<tr>
<td>Celery</td>
<td>3.10</td>
<td>2.58</td>
</tr>
<tr>
<td>Zucchini</td>
<td>3.02</td>
<td>2.52</td>
</tr>
<tr>
<td>Brussels Sprouts</td>
<td>2.85-2.99</td>
<td>2.45</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>2.51-2.64</td>
<td>2.20</td>
</tr>
<tr>
<td>Potatoes (various)</td>
<td>1.00-1.90</td>
<td></td>
</tr>
<tr>
<td>Beans (various)</td>
<td>1.50-1.70</td>
<td></td>
</tr>
<tr>
<td>Mixed Vegetables</td>
<td>1.55-1.60</td>
<td></td>
</tr>
<tr>
<td>Corn</td>
<td>1.55-1.86</td>
<td></td>
</tr>
<tr>
<td>Peas</td>
<td>1.20-1.50</td>
<td></td>
</tr>
<tr>
<td>Carrots</td>
<td>1.00-1.21</td>
<td></td>
</tr>
</tbody>
</table>

Source: Spot check of three local supermarkets in Christchurch area. The standard markup on all frozen vegetables was about 20 per cent.
TABLE 4

**Selected Fresh Vegetable Retail Prices**

(\$/kg)

<table>
<thead>
<tr>
<th>Date</th>
<th>Broccoli</th>
<th>Brussels Sprouts</th>
<th>Mushrooms</th>
<th>Tomatoes</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 June</td>
<td>1.26-2.20</td>
<td>0.99-1.95</td>
<td>4.40-5.50</td>
<td>2.39-3.30</td>
</tr>
<tr>
<td>4 July</td>
<td>2.98-4.40</td>
<td>0.99-1.45</td>
<td>4.50-4.89</td>
<td>2.20-3.60</td>
</tr>
<tr>
<td>11 July</td>
<td>3.49-4.59</td>
<td>0.99-1.39</td>
<td>4.40-4.99</td>
<td>2.59-3.25</td>
</tr>
<tr>
<td>18 July</td>
<td>3.49-3.99</td>
<td>1.20-1.50</td>
<td>7.50-10.00</td>
<td>2.40-3.50</td>
</tr>
<tr>
<td>25 July</td>
<td>n. a.</td>
<td>1.39-2.25</td>
<td>4.40-5.50</td>
<td>1.60-3.95</td>
</tr>
<tr>
<td>1 Aug.</td>
<td>3.00-4.40</td>
<td>1.50-2.50</td>
<td>5.00-6.50</td>
<td>3.50-4.40</td>
</tr>
<tr>
<td>8 Aug.</td>
<td>3.60-3.95</td>
<td>0.95-1.99</td>
<td>n. a.</td>
<td>2.45-4.99</td>
</tr>
<tr>
<td>15 Aug.</td>
<td>2.29-5.00</td>
<td>0.99-2.29</td>
<td>4.10-5.00</td>
<td>1.86-3.99</td>
</tr>
<tr>
<td>22 Aug.</td>
<td>2.29-3.85</td>
<td>1.79-2.95</td>
<td>3.99-4.90</td>
<td>2.62-4.14</td>
</tr>
<tr>
<td>29 Aug.</td>
<td>2.95-4.60</td>
<td>1.98-2.80</td>
<td>5.00-6.50</td>
<td>3.00-6.50</td>
</tr>
</tbody>
</table>

Source: Christchurch Press

(iii) **Consumer Response**

Reasons given as to why the consumer may prefer frozen to fresh were:

(a) Is in a convenient sized package and can be stored until needed in a freezer (fresh deteriorates quite quickly);

(b) The consumers are attracted by the package; and

(c) Lack of awareness due to the noncomparability of the two forms because of differing weights. (Frozen packs had three different sizes: 375g; 1 kg; and 2 kg while fresh sales were normally on a per 100g basis or tray packs of various weights.)
There was, though, a general generic lack of awareness by the buying public due to the 'newness' of broccoli. Older people were not inclined to purchase new vegetables and on top of this some very poor quality fresh broccoli came on the market causing dissatisfaction. There was thought to be a relationship between fresh and frozen sales in this respect - if customers had a 'bad experience' with fresh broccoli then they would not try frozen broccoli.

(iv) Competitors or Substitutes

The hypothesis constructed concerning substitutes was that they would be other vegetables around the same price in the frozen specialty vegetable bracket. These would be: zucchini; cauliflower; brussels sprouts; capsicum and mushrooms. In addition to this it would be expected that there would also be competition from fresh broccoli.

Sales of frozen green sprouting broccoli did not appear to be related to the price of substitute goods or competitors, according to the responses received. There appeared to be a slight increase in sales when fresh broccoli was unavailable. This suggests that there is very little conscious price comparing, therefore, most decisions would be made considering other factors such as novelty, convenience etc. The sales of frozen brussels sprouts and cauliflower were similar to that of broccoli. Mushroom sales were higher while zucchini and capsicum sales were lower.

(v) Implications of Changes

An 'in store' promotion of a price cut ($1.23/375g - $1.00/375g) would be expected to lead to a two to six-fold increase in sales. A
promotional campaign by one of the producer companies would have a similar effect on sales without a price cut. This would appear to suggest a lack of awareness by consumers of the product and a willingness to try something new if it is on 'special'.

There was thought to be nothing wrong with the form and size of the frozen product. Packs of 375g were considered a good size for the average meal and the packs were attractive enough and not lacking in instructions. The retailers thought there would be no advantage in having freely frozen pieces of broccoli (at present it is all block frozen) as the block form is easier to display and stack in freezers. They also thought free flow packs may cause damage to the broccoli as it is a fairly delicate vegetable. Price was considered fairly reasonable.

Table 5 presents a tabulation of the results of the in-depth interviews with four supermarkets:
TABLE 5
Results of Selected Supermarket Interviews

<table>
<thead>
<tr>
<th>Supermarket</th>
<th>Present Frozen Sales (375g pack equivalents/wk)</th>
<th>Past Experience</th>
<th>Expected if ...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Watties Broccoli</td>
<td>Edgels Broccoli</td>
<td>Brussels Sprouts</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

x No significant change in sales of frozen broccoli
7.2.4 Summary and Future Demand Conclusions

Frozen green sprouting broccoli was selling on average six packs (at 375g/pack) per week in each supermarket. This was comparable with other frozen vegetables of a similar nature. The packaging, presentation, size of package, directions for use and product form were considered good.

Present sales levels could be attributed to a low level of consumer product awareness and the relatively high price of the product. Broccoli requires delicate handling to ensure an acceptable product and this, along with the relatively short storage life of fresh broccoli, could count in favour of the frozen form. Frozen broccoli can be on hand ready to serve when guests come or when fresh is unavailable. The frozen form can also be of a higher quality as it is blanched and frozen straight after harvesting whereas the fresh product may be several days old by the time it is cooked.

In the short-term, if these two attributes were to be promoted, than there could be close to a tripling of sales from an average of six 375g packs per week/supermarket to 18 packs. This would depend upon present supply constraints being overcome.

In the longer term prospects look bright so long as supply is able to be increased. The production of frozen broccoli has been very erratic over the past six years, due mainly to lack of knowledge by growers on planting times and other production activities. As quality increases with new varieties, and growers become more knowledgable, then there will be an increase in supply. Consumers are therefore likely to become more aware of broccoli, especially if it is promoted, and, if quality aspects of frozen broccoli are made known, a steady and increasing demand could be expected.
The supermarkets thought 'in store' promotion of a price drop would nearly triple sales: i.e. advertise a price reduction from say $1.23/375g down to $1.00. The 'special' label would attract many people, who are becoming more conscious of price, but who might provide a 'treat' for the family. This may be a good scheme from the retailers point of view but the poor supply situation would have to be rectified. Also a lowering of price could detract from broccoli's image as an 'out of the ordinary' vegetable.

7.3 Analysis of Producer Market Demand

7.3.1 Restaurants and Hotels Survey

Ten restaurants in the Christchurch Metropolitan Area were visited and personal interviews with either the chef or manager were undertaken. The restaurants were selected on an 'a priori' basis to try and achieve a cross-section of the trade covering most types of restaurants. The restaurants and hotels are listed below with a brief description of each type:

Noah’s Hotel (Waitangi Room) - An expensive hotel of a high quality, catering for tourists and executives and serving both lunch and dinner.

Avon Motor Lodge - A travellers hotel catering for both tourists and businessmen as well as holding functions. It would be classed in the 'top end' price range.

Casa Del Sol - A medium to high priced restaurant specialising in Mediterranean style foods; only for dinner.

Mykonos - A medium priced Greek style restaurant, again only serving dinner.
Chung Wah - A medium priced Chinese restaurant.

Dux de Lux - A vegetarian restaurant with a medium price.

Farmyard - A vegetarian restaurant specialising in fresh foods with emphasis on organically grown foods. Medium to low price.

Fails Cafe - A low priced restaurant serving mainly fish dishes.

Oxford Victualling Co. - A low price, high throughput restaurant in the Oxford Hotel. Speed is of essence as people can eat as soon as they have ordered and paid.

Excelsior Hotel - A low priced restaurant in the Excelsior Hotel. Again speed and high throughput are important.

The questions put forward in the personal interviews were again of the unstructured kind; a checklist being used with brief comments covering topics to be investigated. The respondents could then be more open and relaxed while the interviewer can choose a style or approach to suit each respondent. The interviews took from anywhere between ten minutes to over half an hour depending on the amount of information being given and willingness of the respondent.

Checklist

Supply - present stocks; regularity of stocking; amount; seasonality; future supply

Price - price range that is restricting purchases

Product form and attributes - is the product good enough?; do changes have to be made?; uses

Competitors and substitutes

Criteria for purchase - why would you buy?; why wouldn't you buy?; what would change your mind?
Experience with product - past and present experience with product; will there be changes in the future; chefs as well as final consumers.

Demand - past; present; future.

The list is not exhaustive so some points may need to be added to suit the particular situation being investigated.

7.3.2 Results

(i) Cooking Method

The cooking method of the 'Convenience Food Restaurants' was not suited to the preparation of broccoli as a vegetable. The pre-cooking method and the warming in vats ready for use tends to break up the broccoli and hence lead to a poor quality product. A product development programme would have to be conducted before any advances could be successfully made into this market.

Broccoli is well suited to other cooking methods, especially 'Ethnic Chinese' style, where it is steamed or boiled for a short period, stays intact, holds its flavour and colour and can also be used as a garnish.

Some styles of cooking from other countries do not use broccoli and to remain authentic would not in the future.

(ii) Quality

Quality was a major determining factor in the process of deciding which vegetables to serve. High quality was very important with the 'specialty healthfoods' style restaurants especially in respect to
freshness (i.e. not frozen), and with the 'Tourist Hotels' who have to present a luxury image.

The quality aspect becomes less important as the price of the meals becomes cheaper but there has to be a balance between the two. If the frozen broccoli can be shown to be of superior quality to fresh broccoli and retaining nearly the same amount of goodness as fresh then these two producer market groups could be attracted towards frozen broccoli.

(iii) **Price**

During the 'fresh broccoli season' the price of frozen broccoli would have to be cheaper than fresh and of comparable or superior quality to be competitive. In the 'off season' the price would have to be comparable to other vegetables with the same degree of attraction.

The present price enables only the 'medium to high' priced restaurants to afford to use it in cooking. A drop in price combined with product change would enable 'convenience food' restaurants to enter the field as customers. Again the matching of quality with price is important and it may be worthwhile to have a selection of frozen broccoli qualities with a selection of prices.

(iv) **Competitors**

The competitors for frozen broccoli will be different in each market segment. In the highly priced restaurants, such as the 'tourist hotels', the competitors will be other specialty vegetables, not just vegetables currently 'in season'. 'Tourist hotels' try and provide a high degree of variety with their vegetables, not using everyday vegetables such as peas, beans, cabbage etc. The biggest advantage in this market segment would most probably lie in the
'off-season' or when there is a shortage of variety vegetables.

The competitors, in the other market segments, will depend more upon the price aspect. They would be other green vegetables such as: peas; beans; cabbage; silver beet etc.

(v) **Past Experience**

Previous use of frozen broccoli by chefs may influence the decision to use it in the future. Chefs from Europe would be more knowledgeable of the frozen form, as European fresh supplies are not of a very high quality. With the increasing number of ethnic and specialty restaurants becoming established in Christchurch, it could mean more foreign chefs, hence more knowledge and acceptance of frozen green sprouting broccoli.

(vi) **Convenience**

The frozen form could have an advantage over fresh in terms of convenience. It does not have to be specially prepared (i.e. trimmed and cut into pieces), therefore where speed is of the essence, there would be an advantage over fresh broccoli. The 'convenience food' restaurants may be more open to this form but only if price was more competitive with such vegetables as peas and beans.

(viii) **Clientele's experience of Fresh Broccoli**

Opposing this factor for the 'convenience food' restaurants, it was felt that the clientele would not be fully receptive to broccoli, having had little previous experience with it.

Customers of the 'specialty healthfoods' restaurants would have had experience with broccoli in the past and to them it would not
appear such a novelty. 'Tourist style' hotel patrons would come to expect unusual (or 'out of the ordinary') vegetables on their menu and would most probably have had previous experience of broccoli while travelling. 'Ethnic Chinese' patrons may have had broccoli whilst not realising it, as it is often used as a garnish or else mixed in with a range of other vegetables.

Therefore the type of clientele catered for will have an effect on the willingness of the trade to adopt frozen broccoli. As the final consumer would most probably not know the difference between fresh and frozen broccoli, when served to him, the decision by the restauranteur would only be influenced by the acceptability of broccoli as a vegetable and its price relativity to other vegetables.

7.3.3 Conclusion

Fresh vegetables are preferred by most of the trade, although cheap frozen vegetables (peas, beans, mixed vegetables, etc.) are used by the lower price range establishments. To compete successfully, frozen broccoli has to be at a lower price than fresh and at a similar quality.

Frozen broccoli has potential in the period October through to February, when fresh supplies are depleted, but only for specific restaurants. Those restaurants that use fresh broccoli and also use some frozen vegetables would be the most likely ones to accept frozen broccoli. Chinese style restaurants in the medium to high price range would be the most receptive while other restaurants in this range would only accept the product if quality is of a high standard, and prices lower than comparable green vegetables.

If the product could be made to survive the rigours of the 'precook then reheat' cooking method, then this could open up a new
market in the low to medium price, high throughput, fast service restaurants.

7.3.4 Caterers

Due to the limited nature of this research, the catering trade was not approached or surveyed. This does not mean, however, that it is unimportant or has no potential.

The method of conducting an analysis of the Catering Trade's attitude to frozen broccoli would be very similar to that used for the Restaurants and Hotels.

Firstly, an outlet search would be conducted with the relevant source list being Wises New Zealand Post Office Directory in conjunction with the 'Yellow Pages' from the Telephone Directory.

Then, as in the hotel/restaurant case, either a sample would be chosen or else, depending on numbers, the entire population may be chosen. If there are only a small number of caterers it may be possible (and preferable) to see them all.

A survey or census would then be conducted - scope and form taking into consideration the factors in Table 1, Section 7.2.2. The survey could be: structured - having a formally designed questionnaire; or unstructured - using a checklist with open-ended questions for respondents to answer.

The questions (or topics) would be similar in nature to those asked in section 7.3 covering aspects such as: the price; product attributes; competitors or substitutes; frequency of purchase; amount of purchase; future prospects and any other information considered relevant in obtaining an overall picture of the future demand.
The interview (if this is the method to be used) would then be conducted with the person responsible for ordering the supplies of vegetables used by the catering firm.

7.4 Analysis of Consumer Market Demand

7.4.1 Consumer Survey

To obtain some degree of knowledge of how the final consumer views frozen broccoli, a consumer survey was conducted. The questionnaire (which is given in Appendix I) was asked only to those people purchasing frozen specialty vegetables. The relatively low numbers of people purchasing such items resulted in the number of respondents being too small to obtain a significant result. The responses could therefore only be used to test that the questionnaire worked and provided the information required. Its presentation in this report is therefore to show how a completed questionnaire of this type might look and to show the areas covered and why.

The survey involved the conducting of interviews with supermarket customers who purchased a packet of frozen specialty vegetables. The specialty vegetables in question were: broccoli, brussels sprouts, cauliflower, zucchini, sweet capsicums and mushrooms.

The questionnaire took approximately ten minutes to complete; a short time interval is important for questionnaires of this type as the respondents are often in a hurry and do not want to be inconvenienced.

The questionnaire was designed to reveal consumer attitudes to the product, in order to provide information useful to marketers in their development of the market. The definition of the product
(the "object") as seen by the consumer is an essential starting point. The first two questions therefore were an attempt to establish a definition of the product from a consumer point of view. In addition, question seven was intended to result in a more specific indication of the consumer attitude to the product.

Questions three, four, five and six were designed to obtain information which would lead to an identification of the consumer's objectives when purchasing this type of product and the things that are important to the marketer in designing (or revising) the product presentation. This area is the most important to the marketer as, without knowledge of the consumer objectives, products cannot be presented appropriately for maximum profitability.

In order to obtain information on the person who is carrying out the purchasing operation, and this person's background, questions eight, nine and ten were developed. The information resulting from these questions enable the preceding information to be categorised according to the socio-economic position of the respondent. This also identifies the type of buying organisation. Further details can be requested on this area, but, in general, other consumer profiles, of a less specific nature, should be available to enable the investigator to identify this aspect with sufficient precision.

7.4.2 Summary

As stated previously because of the very small number of respondents no significant results can be tabulated but just a brief idea can be gained of consumers attitudes and decisions. Most of the eight respondents were purchasing once a month with the main vegetables being mushrooms, brussels sprouts and cauliflower, (zucchini is now unavailable as it has been taken off the market due to poor sales).
In the purchasing decision only two factors were deemed important by everyone interviewed: "quick and easy to prepare" and "can be stored until needed". The next highest scores in terms of importance were "add variety to the meal" and "directions on packet for use" followed by "price of frozen cheaper than fresh" and then by "attractive packet".

Six people used the vegetables for everyday meals while three used them for special occasions. Five people compared the price of fresh and frozen forms while three did not. The reason given for not comparing prices was that they preferred the frozen form to the fresh.

The highest importance was placed on a price drop when determining whether respondents would buy (or buy more of) frozen broccoli. This was followed by "fresh not available", "recipes on packet" and "free flow frozen". "Price of fresh dearer" was next while "packs different size", "friends influence" and "other frozen vegetables unavailable" had an even number of people stating important and unimportant.

No-one thought of broccoli as an aristocratic vegetable. This could have been a poorly phrased question and this result may not be typical.

The range of respondents covered nearly every bracket in the socio-economic groupings: labourer to executive (as head of household) and under 25 to greater than 64 age group. It would be unwise, however, to make any comparison between the groups and their answers with such a small sample.
7.5 Conclusion

Information available from the brief surveys undertaken would indicate that there is a significant potential for increased sales of frozen green sprouting broccoli. In spite of the relative newness of the product, it was considered that sales through supermarkets had been satisfactory, given the supply limitations experienced. It was further considered that large increases in supermarket sales could be achieved if effective promotion was undertaken.

As a result of the relative uniqueness of frozen green sprouting broccoli (in the green vegetable area), there did not appear to be a high level of competition between it and other comparably priced frozen green vegetables. Nor did there appear to be a marked competitive situation between fresh and frozen green sprouting broccoli. There was some frozen product sales reduction, during the season when fresh was available, but this did not appear to be considered very significant. Supermarkets were generally in favour of continued stocking of the product, indicating their acceptance of the turn-over rate.

The restaurant trade in general was not found to be a very strong prospect for substantial increases in sales of frozen green sprouting broccoli. There are, however, specialist areas within the trade that exhibit strong interest in obtaining increased supplies. In particular, Chinese style restaurants expressed a strong interest in obtaining increased supplies. It is considered that increased general usage in the restaurant trade may only be encouraged through increased public acceptance of the product. This can only result from increased promotional activity, matched by increased production of the required type of product.
A substantial market in Christchurch for frozen green sprouting broccoli has been identified by the surveys undertaken. This market can be taken advantage of by increased promotion (and production) of a product similar to that already available and at a similar retail price. This situation is likely to be similar over the rest of New Zealand and therefore a market area of significant potential is available.
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WISES NEW ZEALAND POST OFFICE DIRECTORY
APPENDIX I

FROZEN BROCCOLI SURVEY

FIRST GET PERMISSION FROM MANAGER OF STORE. PARK YOURSELF NEXT TO THE FROZEN VEGE COUNTER AND POUNCE ON ANYONE BUYING ANYTHING ON THE LIST (Q2).

(Smile)

Hello! I'm from the Research Unit at Lincoln College and I see you're going to purchase (State name of vegetable). Can I ask a few questions about this?

(IF YES) Thank you

(IF NO) Sorry for troubling you.

1. Is this the first time you've purchased

(Write in name of frozen vege they're purchasing)
1. Yes ( ) 2. No ( ) 3. Can't remember ( )

2. Have you ever bought any of these other FROZEN vegetables? (Show card). (Tick if Yes) (How often) How often would you serve?

1. Broccoli
2. Brussels Sprouts
3. Cauliflower
4. Zucchini
5. Capsicum
6. Mushrooms

1. More than once/wk
2. Once/wk
3. Once/ftnt
4. Once/month
5. Once/year
6. Longer

3. I am now going to read a list of statements which may influence your decision to buy frozen speciality vegetables. Using this scale (show card) could you please indicate how important each statement is.

1. Price of frozen cheaper than fresh ( )
2. Attractive packet ( )
3. Adds variety to the meal ( )
4. Directions on the packet for use ( )
5. Quick and easy to prepare ( )
6. Can be stored until needed ( )

Is there anything else which you consider important when buying speciality frozen vegetables ____________________

4. Do you use them for 'everyday' meals; for special occasions; or both?
1. everyday ( ) 2. special occasions ( ) 3. both ( )

Record any other times stated by respondent ____________________

5. Do you compare the prices of fresh and frozen speciality vegetables before buying?
1. Yes ( ) 2. No ( ) 3. Don't know ( )

(If NO) why not? ____________________

6. Talking about FROZEN BROCCOLI now. Using this scale again (show card) could you please indicate the importance of each statement in deciding whether you would buy/buy more frozen broccoli.

1. The price dropped by 20¢/375g packet ( )
2. Fresh broccoli was not available ( )
3. Fresh broccoli was dearer ( )
4. There were recipes on the packet ( )
5. It was free flow frozen like peas ( )
6. The packs were a different size ( )

(If important) What size(s) would be better? ____________________

7. Your friends started to use it in cooking ( )
8. Other frozen speciality vegetables were unavailable ( )
7. Broccoli has been described by some people as an 'aristocratic' (or for the wealthy) vegetable. Would you agree with this?
   1. Yes ( ) 2. No ( ) 3. Don't know ( )

   Nearly finished just a couple more questions.

8. How many people live in your household ( ) and how many are of school age ( )?

9. What is the occupation of the head of your household _______________________

   And now the last one.

10. Which age group do you belong to?
    (State age group one lower than you think she/he is).
    1. <25 ( ) 2. 25-34 ( ) 3. 35-49 ( ) 4. 50-64 ( ) 5. >64 ( ).

   (Do Not Ask)
   Sex: 1. Male ( ) 2. Female ( )

   Supermarket: Name ____________________________

   Area: ____________________________