New Zealand - Agric.

NEW ZEALAND HORTICULTURAL EXPORT MARKETING: CASE STUDIES

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NEW ZEALAND HORTICULTURAL EXPORT MARKETING: CASE STUDIES

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PREFACE

This research project was financed by the Economics Division, Ministry of Agriculture and Fisheries. Such assistance is gratefully acknowledged.

Many growers, exporters and others gave generously of their time and knowledge to allow in-depth interviews to take place. We also gratefully acknowledge their willing cooperation which was a necessity for the completion of the project.

These interviews were conducted between February and September 1980. Because of the current emphasis on planning in the horticultural industry, we recognise the possibility that some changes in horticultural exporting may have occurred since then. Our impression however, is that these changes have not been great enough to significantly alter our commentary.

We have attempted to interpret material obtained during the interviews in an objective manner. Any remaining shortcomings or inaccuracies are the sole responsibility of the authors.

In the course of our research, it became apparent that several firms were in conflict with one another over various issues. Since we have attempted to record these differences, we would expect these firms to also be in conflict as to the findings of our report!

In order to check our interpretation of information given us in the course of the interviews, a copy of relevant draft material was sent to all firms whose information played a major part in the formulation of this report. A nil response was to be interpreted as tacit approval of our interpretations. Out of 23 firms contacted in this way, only four replied with suggestions for modification of our material. Only one of these suggested major changes.

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SECTION A

1. INTRODUCTION TO THE PROJECT

1.1 Background

The New Zealand horticultural industry is currently experiencing a phase of rapid growth. The value of horticultural exports has increased from $20 million (f.o.b.) in 1970/71 to over $130 million in 1979/80. This large increase was due primarily to growth in the production of apples and kiwifruit - these two products accounting for 43 percent of the value of exports in 1970/71 and 56 percent of that value in 1979/80. However, large production increases have also occurred for other products, such as some cut flowers and berryfruits. Encouraged by a range of factors, new investments are still occurring and production of a wide range of horticultural crops will continue to increase during the 1980's.

These developments have attracted a large number of diverse firms into the export marketing of New Zealand produce, with the result that a variety of exporting channels are employed. Because such firms range from small, specialised production units to large diversified public companies, the types of marketing methods and skills employed in the export operation were expected to exhibit wide variation. In addition, industry discussions had indicated severe problems of competition and a lack of coordination amongst New Zealand export firms.

Against this background, government sponsored a horticultural exporting seminar in 1977 that led to the establishment of the Horticultural Export Development Committee as an advisory mechanism. Since then, two further symposia have been held. This committee is now encouraging the industry to plan its future export development through industry involvement in product planning groups, through the collection and analysis of market

information and through research studies. It is in this climate that the present study was initiated and is presented to the industry as a contribution to the planning process.

1.2 Research Objectives and Procedures

This research study sought to undertake a number of case studies within a selected range of horticultural products, with the following objectives:

(i) to describe the structure of the selected export marketing channels;
(ii) to detail the export marketing methods used by the firms that comprised the case study channels; and
(iii) on the basis of this examination of the structure and operation of the various channels, and on the basis of the individual firms' marketing mixes, to present suggestions for further consideration by government, industry and researchers to improve, where necessary, horticultural export marketing performance.

To achieve these objectives, the following procedures were followed:

(i) identification of the products to be studied;
(ii) identification of the case study channels involved in the exporting of these products;
(iii) study in detail, using personal interviews, the marketing methods adopted by individual firms in these channels; and
(iv) evaluation of the functioning of these channels.

A number of criteria were taken into account in the selection of the products to be studied. Apples, pears and kiwifruit were excluded from

consideration since it was felt that the marketing of these products had already been subject to a degree of examination, at least in relation to other products. The selection of products reflected the desire to include those that were either important export crops at present, or were exhibiting the potential to become so in the future, to include both fresh and processed forms, to cover both edible and non-edible crops, and to include an item where some product differentiation was apparent. As a result, the following products were selected:

* onions
* potatoes
* fresh strawberries
* processed boysenberries
* cymbidium orchids
* live plants (both ornamentals and houseplants).

In each case, one or two major marketing channels were defined so that whilst the research results refer specifically to these channels, the high proportion of total exports moving through them has enabled comments to be made on the industry-wide situation as well.

1.3 Marketing Channels and Their Structural Characteristics

The export of horticultural products requires the involvement of different types of organisations such as production units, transport operators, processors, exporting firms, wholesalers and retailers. The product is typically transferred from one organisation to another, taking advantage of each firm's specialisation in the tasks required to transform the raw material to a consumer product. The export marketing channel is the set of organisations associated with this sequential process of making the product available for consumption.

Thus the channel consists of a number of interdependent organisations, in that the decisions and actions of one firm will affect the decisions taken by some other firm/s in that channel. Recognition of such interdependence is crucial to the study of marketing channels, and the present study will draw attention to the following issues that influence or determine the relationships between these organisations.

The extent to which coordination, or harmonisation, of the decisions of any firm with those of other firms in the channel is achieved, influences the performance of that channel. Coordination may take place between firms at the same level in the channel, e.g. among growers, or exporters, in which case it is termed horizontal coordination. Coordination between firms at different levels, e.g. between growers and exporters, is termed vertical coordination. Coordination of activities among alternative channels may also be achieved.

The nature and extent of competition among firms within the channel, and between channels, also characterises the structure of the channel and its ultimate performance. Competition may be between firms at any level of the channel, e.g. among exporters for transport services, or product supplies, or between firms in different channels. The nature of such competition will depend upon factors such as the number of firms involved, their size and the power they are able to wield over other firms.

Because the achievements of the individual firms within any marketing channel are dependent on each others actions, conflicts often arise due for example, to the incompatability of the firms' objectives. Whether or not such conflicts are resolved obviously affects channel performance.

Figure 1 summarises the above definition of a marketing channel, and the factors that shape its structural characteristics.

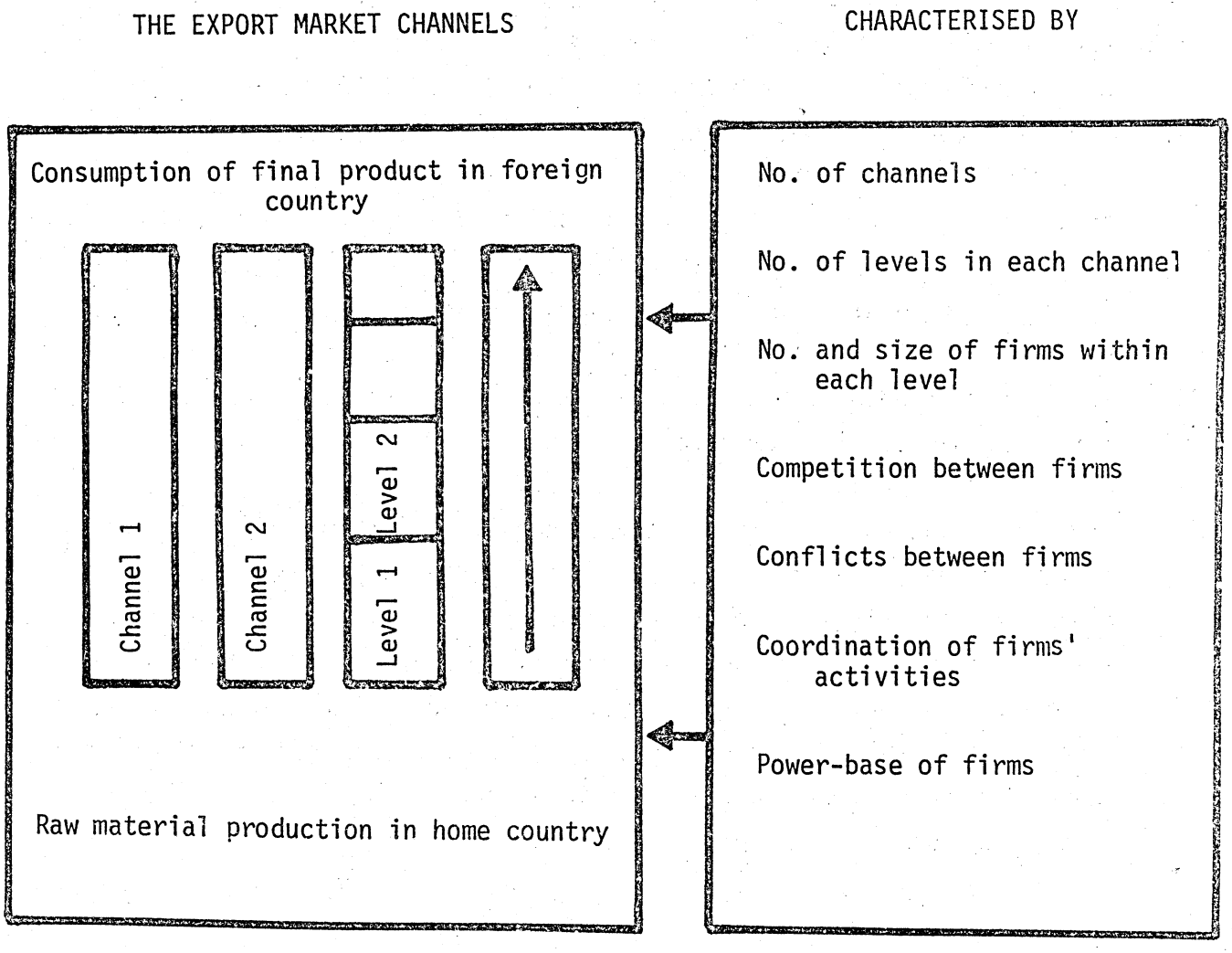


Figure 1: Typical Structure of Horticultural Export Marketing Channels

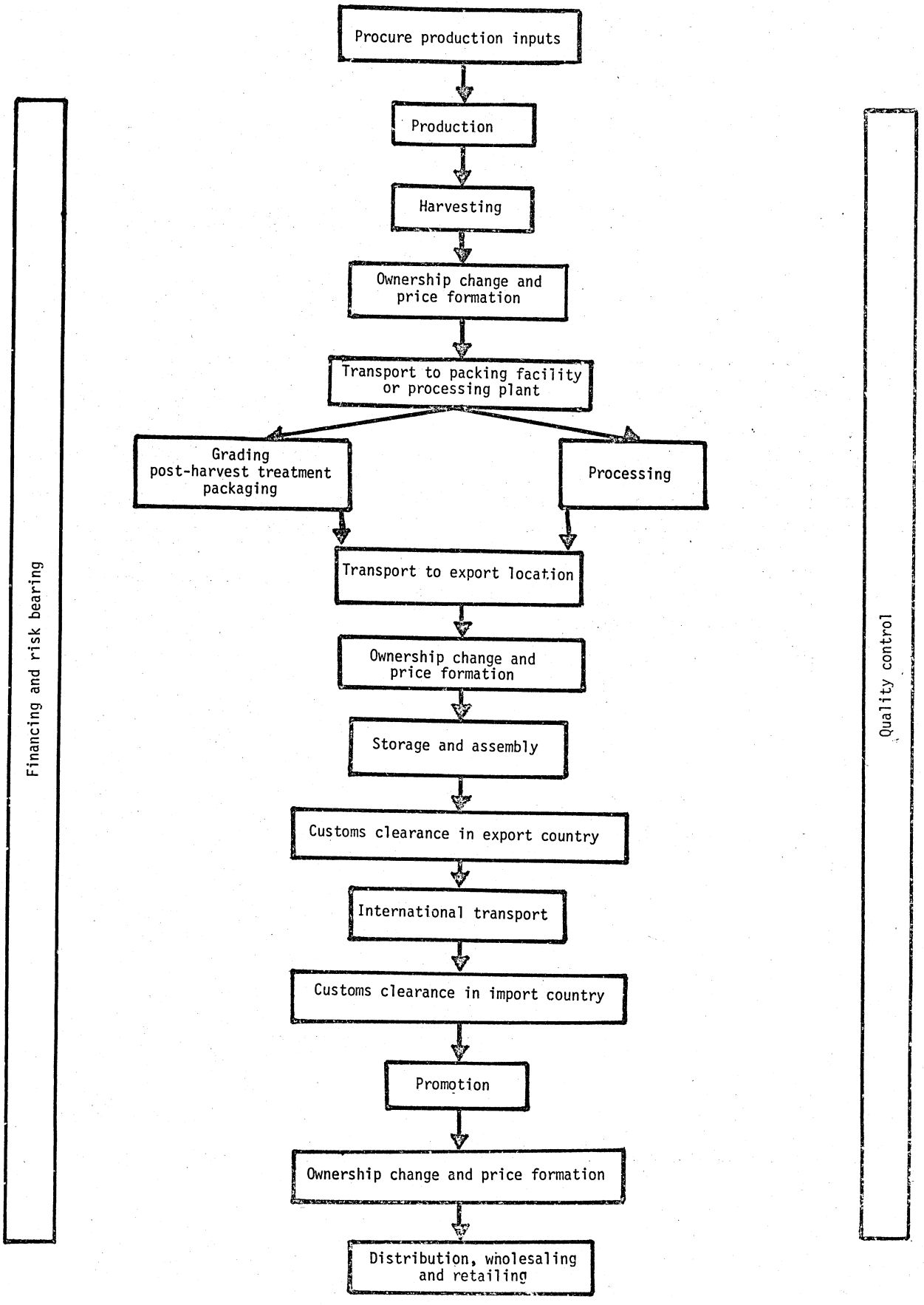
1.4 Marketing Activities and External Environment of Individual Firms

In addition to examining such structural issues in the case study export channels, the second major focus of the present study is to examine the way in which the firms that make up each channel go about their export marketing activities. Horticultural export marketing involves a whole sequence of activities, only some of which generally fall in the domain of any particular channel member. Some of these are indicated in Figure 2. Not all activities will exist in any channel, and their sequence of occurrence may differ from that suggested in the figure. The total costs incurred within the channel will be a function of the types of activities that are carried out, the efficiency with which they are carried out, and the organisational structure (e.g. size of firms and degree of inter-firm coordination) of that channel.

The production and marketing activities of the firms within the marketing channel are carried out in the face of an external environment over which the firms may have no influence. This may be divided into external factors in the exporting country, external factors in the importing country, and the nature of international competition. Figure 3 gives some examples of these factors, and suggests that firms within the marketing channel should obtain knowledge of these external factors through the design and implementation of market information systems.

1.5 An Idealised Channel Planning Model

Here, an endeavour is made to draw together the ideas of previous sections to suggest the manner in which marketing plans may be formulated in a coordinated export marketing channel. The model is sketched as Figure 4. It requires the various firms that comprise the channel to work jointly towards achievement of the channel, rather than individual firm, objectives to the extent permitted by the channel's external environment. Flows of information about these external factors, as well as the results of the firms' own actions, are imperative to the achievement of marketing objectives.


Procure production inputs
Production
Harvesting
Ownership change and price formation
Transport to packing facility or processing plant
Grading post-harvest treatment packaging
Processing
Transport to export location
Ownership change and price formation
Storage and assembly
Customs clearance in export country
International transport
Customs clearance in import country
Promotion
Ownership change and price formation
Distribution, wholesaling and retailing
Financing and risk bearing
Quality control

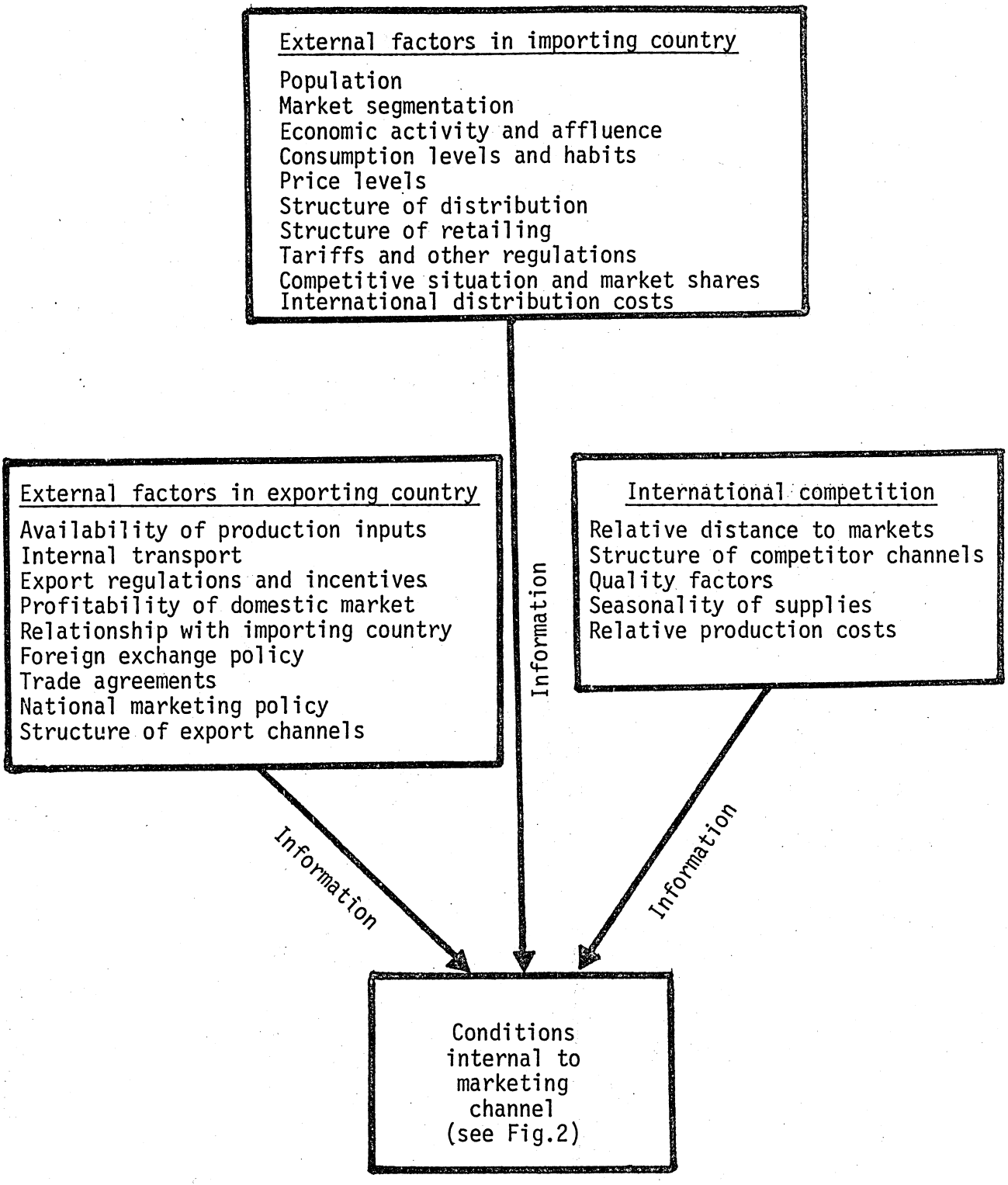


Figure 3: External Environment of the Exporting Channel

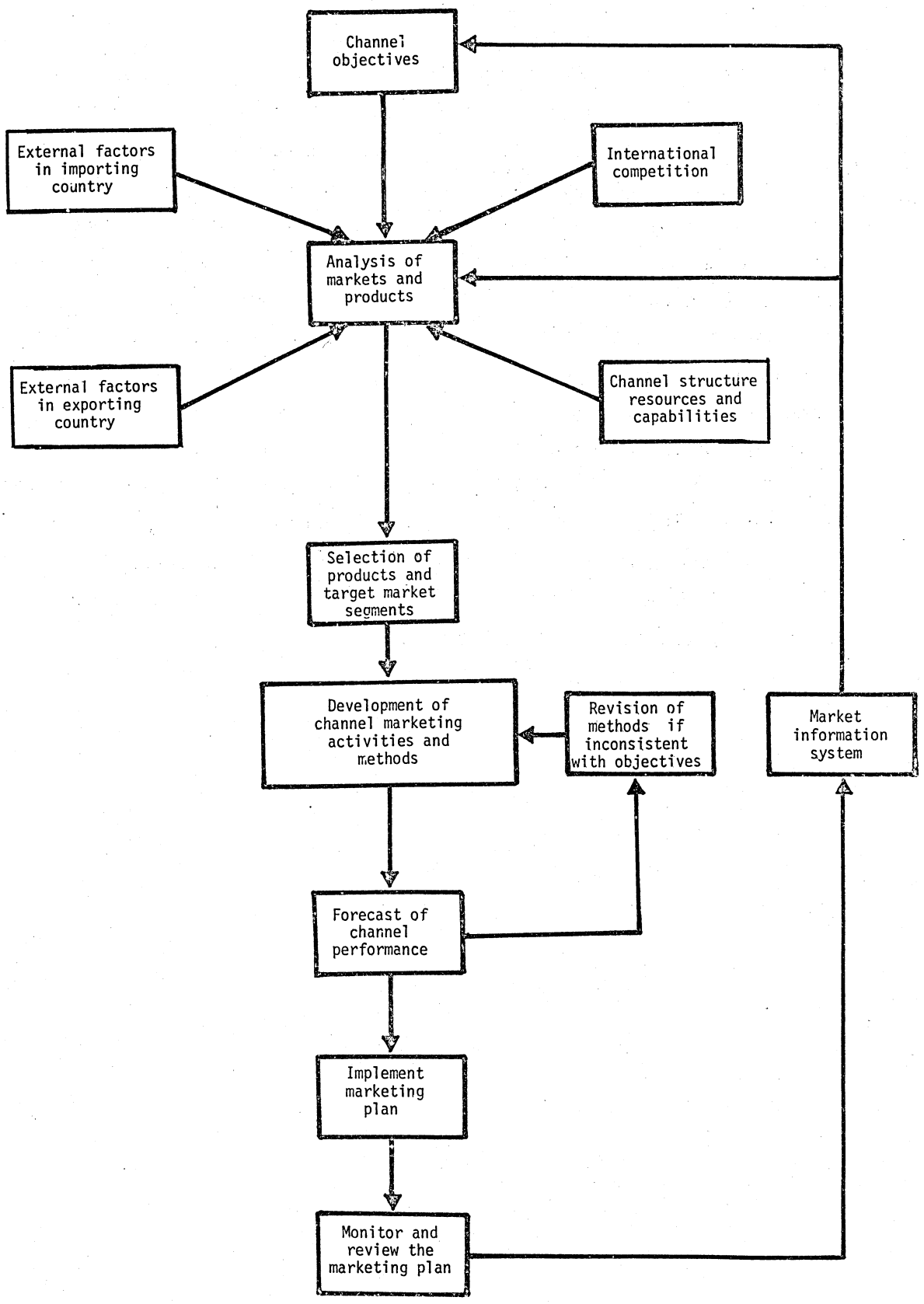


Figure 4: Horticultural Export Channel Market Planning Model

1.6 Policy Relevance of the Study

An objective of this research study is to make a contribution to the formulation of appropriate market policies for New Zealand's export-oriented horticulture. This is seen to comprise two levels, one being the national policy and the other, the marketing policies of individual firms. The first of these of course involves government policy with respect to many of the external factors listed in Figure 3, such as transport, availability of inputs, export incentives and international trade policies. But it also recognises that government can intervene to shape the structure of marketing channels, e.g. to encourage the formation of cooperatives, or establish statutory marketing institutions. The second level of policy, that which is the concern of individual firms, obviously includes their choice of market strategy. Individual firms however, as well as government, can take action to improve structural characteristics of the marketing channels, such as setting up their own coordinating mechanisms and resolving their conflicts, without public involvement.

SECTION B

2. BERRYFRUIT

2.1 Background

2.1.1 New Zealand production

Section 2 deals with the export of two types of berryfruit, namely fresh strawberries and processed boysenberries.

Production of boysenberries has increased from 454 tonnes in 1970 to 2498 tonnes in 1980 due to increases in area planted (see Table 1). Sixty percent of the national crop is produced in Nelson and 20 percent in Hawkes Bay. Remaining supplies are drawn from a wide area between North Auckland and Otago.

Table 1: New Zealand Boysenberry Production

Year[a)]	Net Area (ha)	Total Production (tonnes)	Fresh Sales as % Total Production	Process Sales as % Total Production
1970	74	454	43	57
1974	173	1159	33	67
1975	179	1525	26	74
1976	176	1459	35	65
1977	174	1493	35	65
1978	187	1787	25	75
1979	355	1916	21	79
1980	..	2498	20	80

a. Years ended 30 June.

Source: Ministry of Agriculture and Fisheries

The greater part of the crop is sold for processing with less than one-third being consumed fresh.

Production of strawberries in New Zealand declined throughout the first half of the 1970's, as did the total volume of exports. By the end of the 1970's, production had climbed back to the earlier level. Around 75-85 percent of the crop is sold in the fresh form (see Table 2).

Table 2: New Zealand Strawberry Production

Year[a)]	Net Area (ha)	Total Production (tonnes)	Fresh Sales as % Total Production	Process Sales as % Total Production
1970	248	4579	67	33
1974	181	3369	79	21
1975	178	3121	84	16
1976	160	2984	87	13
1977	174	3554	79	21
1978	213	4440	74	26
1979	271	4826	74	26
1980	..	4814	73	27

a. Years ended 30 June.

Source: Department of Statistics, Ministry of Agriculture and Fisheries

Auckland is the major production region, producing around 50 percent of the total crop. The North Island presently produces over 80 percent of the total crop, after gradually increasing this share over time at the expense of South Island regions, especially Canterbury, which have reduced production to the level of demand in local markets.

The market season is from September to May, with November and December the peak months. In the South Island, a smaller second crop is harvested during March and April.

Over the last decade, only between 10-25 percent of the total annual crops have been exported in either the fresh or processed form. Generally, the proportion of the total fresh crop that is exported is less than that of the total processed crop.

2.1.2 Destination and value of New Zealand exports

Boysenberries are extremely perishable and the majority of exports are in the processed form, especially as frozen berries. The U.S.A. and Australia are the major markets for New Zealand berries, with total frozen exports climbing steadily to reach almost 1000 tonnes in 1980, valued at nearly $1.5 million. However, whereas these were the only markets for frozen berries up to two years ago, a total of 16 countries received New Zealand frozen boysenberries in 1980. The f.o.b. return per kilogram has risen over the last five years, and over the last three at a rate in line with the increase in farm production costs.

Considering all types of boysenberry exports, Australia and the U.S.A. received 86 percent of the 1978/79 volume, reducing to 70 percent the following year. West Germany is a major market for New Zealand boysenberries processed into other than frozen products.

Table 3: Destination and Value of Boysenberry Exports[a)]

Year ended 30 June	1974	1975	1976	1977	1978	1979	1980[b)]
Australia	33	47	44	159	127	147	115
U.S.A.	358	52	335	285	469	677	696
TOTAL (tonnes)	398	99	380	445	596	854	971
Value (f.o.b., $'000)	272	62	145	291	661	1005	1414
Value (f.o.b., $/kg)	0.68	0.62	0.38	0.65	1.11	1.18	1.46
Deflated Value[c)] (f.o.b., $/kg)	0.53	0.43	0.24	0.35	0.53	0.51	0.51

a. Frozen boysenberries only. Since 1979, fresh exports and those preserved in syrup have been recorded separately. Exports of all types of boysenberries were 1041 tonnes ($1.3 million f.o.b.) in 1978/79, and 1260 tonnes ($1.9 million f.o.b.) in 1979/80. One exporter expected total 1980/81 exports of 2000 tonnes.
b. Provisional.
c. Deflated by All Farm Costs Index, 1971=1000.

Source: Department of Statistics

During the 1974/75 season, prices in the U.S.A. were very low and exporters held supplies in storage. Sales were subsequently made to the U.S. but still at depressed prices. This partially explains the low volume of exports to the U.S.A. in 1974/75 and the low return per kilogram in both this and the subsequent year. Current (end-1980) prices in the U.S.A. are also depressed although the degree of market diversification now achieved by exporters could prevent a repeat of the 1975/1976 experience.

The volume and value of fresh strawberry exports declined between 1970 and 1974, but since then expansion has taken place, most rapidly since 1978. Australia's share of total fresh strawberry exports declined from 48 percent to 20 percent between 1973/74 and 1979/80, while that of the U.S.A. increased from 9 percent to 39 percent. Apart from 1976/77, export f.o.b. prices have increased from year to year in line with farm production costs.

The most profitable period for fresh strawberry exports is between October and January for Hong Kong, Japan, the U.K. and the U.S.A., with the month of peak demand varying somewhat over these countries. Fresh exports to Australia are most profitable during March to May, and so draw supplies from the South Island.

Table 4: Destination and Value of Strawberry Exports[a)]

Year ended 30 June	1974	1975	1976	1977	1978	1979	1980[b)]
Australia (%)	48	52	41	54	23	22	20
U.S.A. (%)	9	17	18	12	22	26	39
U.K. (%)	20	10	10	4	17	12	9
Japan/Hong Kong (%)	8	8	1	16	13	14	14
TOTAL (tonnes)	151	163	158	292	174	339	504
Value (f.o.b., $'000)	186	230	273	436	380	918	1548
Value (f.o.b., $/kg)	1.23	1.41	1.73	1.49	2.18	2.71	3.07
Deflated Value[c)] (f.o.b., $/kg)	0.95	0.98	1.09	0.80	1.04	1.18	1.08

a. Fresh only. Exports of frozen strawberries are also significant, e.g. totally 846 tonnes worth $670,000 (f.o.b.) in 1978/79.
b. Provisional
c. Deflated by All Farming Costs Index (1971=1000).

Source: Department of Statistics

2.1.3 Structure of the case channels

Two marketing channels are studied in this section. The first involves a major growers' cooperative and a large export firm dealing in processed boysenberries. Interviews were also conducted with three other export firms to complement our understanding of this channel. The second case channel deals with fresh strawberry exports, and involves three export merchants buying direct from individual growers or cooperatives. Again, supplementary interviews with four other exporting firms and smaller grower cooperatives were also conducted.

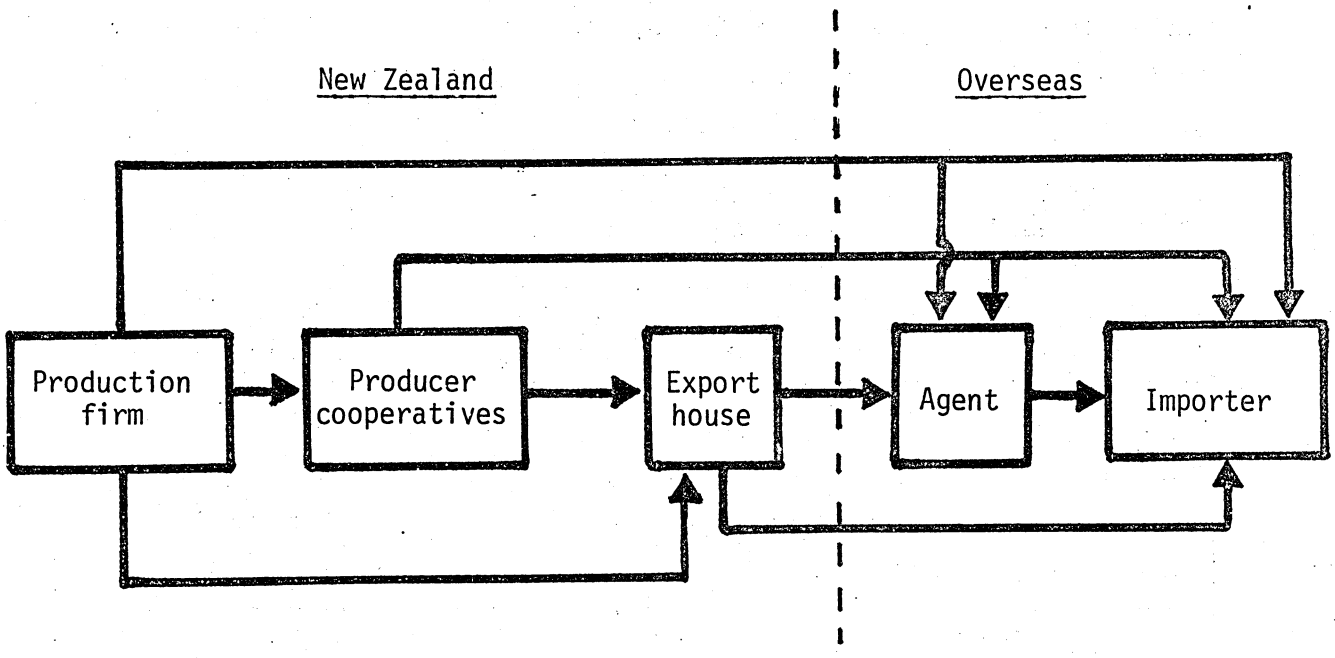


Figure 5: Major Channels of Distribution: Berryfruit

2.2 Case Channel 1

2.2.1 Introduction

The producers' cooperative in this marketing channel is a diversified firm, handling apples, pears, kiwifruit, stone fruit, mussels, and a wide range of vegetable crops in addition to berryfruit for its shareholder

growers. The cooperative has its own cannery and vegetable processing facility, and is the major shareholder in a cool storage complex. The cooperative also jointly owns two production units, producing berryfruit, asparagus and kiwifruit as well as experimental plantings. Both these farms are managed by the cooperative.

The cooperative handles over half of the New Zealand production of brambles. Of these, boysenberries is a major crop with over 80 percent of New Zealand production being under the control of the cooperative.

The exporting firm in the case channel is one of the largest berryfruit exporters in New Zealand, and in addition exports other horticultural as well as agricultural and manufactured products. It is associated with the above cooperative as a shareholder, and also through the joint ownership of a farm. It also engages in berryfruit, kiwifruit, and wine grape production as well as plant propagation on its own production units. It expects to have a share of around 35 percent of total boysenberry exports in 1980/81.

2.2.2 Procurement of supplies

The cooperative obtains boysenberries from its own farms and from member growers, but may also make purchases from non-member producers. Supplies are procured throughout New Zealand. Every member is required to supply his entire crop to the cooperative for a five year period, giving the cooperative considerable control over, and knowledge of, its supplies. The cooperative's philosophy is to encourage the formation of regional cooperatives that may also be shareholders in the major cooperative, and that would market their crop in cooperation with the latter. Growers may be released from their five-year supply obligation if they form or join a regional cooperative enterprise.

2.2.3 Grading, processing and storage

Grading standards are set by the cooperative. Staff of the cooperative, which includes experienced growers, inspect growing crops to assist producers in reaching the desired standards.

Boysenberries can be processed into various products, e.g. block frozen, individual fruits separately frozen (IQF), canned, purees, concentrates, yoghurt bases and dessert toppings. Because of the fragility of the fresh berry, processing usually takes place near the production region. Due to a lack of suitable facilities for a wide variety of processing options, growers in regions away from the main cooperative generally produce only the block frozen form. Whilst the cooperative organises the assembly, grading, processing and cool storage of boysenberries in each region it recognises that the organisation is likely to be more efficient if done by local regional cooperatives, and encourages the formation of such groups for this reason.

The cooperative owns the processing facilities which produce a range of product forms other than block frozen, and also contracts some processing to another export company which owns the specialised facilities. Discussions are held with the exporter to determine product form requirements, and the cooperative's processing plans are then formulated. The exporting firm obtains this information from discussions with their buyers and retailers.

Both the cooperative and the exporting firm indicated that the entire crop could be sold in the block frozen form, but believed that development of new product forms was necessary in view of the heavy future supplies that were expected. Joint funding of new processing facilities, as they are required, was said to be a possibility between the cooperative and exporting firms.

Frozen products are kept in cool storage until required for sale. The cooperative has negotiated a written agreement with exporters to guarantee the payment of storage costs.

2.2.4 Purchase arrangements and pricing

One of the cooperative's policies is to encourage approved exporters through the supply of fruit. To achieve this, the cooperative allocates its supplies to a relatively small group of 'cooperating' export firms. Currently, two exporters (of which the case study export firm is one) each take one third of the cooperative's annual supplies, and the remaining third is allocated among the cooperative itself and a number of smaller exporters.

By the end of each year, the cooperative fixes the price (ex cool store) at which it will sell supplies to exporters. The cooperative is in a strong position to influence this price in any negotiations that may take place.

The cooperative operates two methods of grower payment. Growers may receive payment from pooled receipts, as an initial payment plus the possibility of a bonus from profits made on berries exported by the cooperative itself. Alternatively, the cooperative offers a fixed price at the farm gate, similar to the price offered in the same region by a competing export company. If this option is accepted, the grower cannot join the pooled system for three years. Few, if any, growers have opted for the fixed price system. Growers also receive a premium for berries supplies for IQF freezing or canning due to higher quality requirements.

Various informal agreements have been reached as part of the joint programme operated between the cooperative and its 'approved' exporters. For example, the cooperative will not generally supply exporters who also obtain supplies from outside the cooperative, although it may approve of such transactions in some cases, e.g. where the cooperative cannot supply the quantity required by the exporter, or where the exporter can obtain supplies more efficiently from a local (non-member) cooperative. One small exporter has agreed not to seek supplies from non-members in the cooperative's locality, and the two major cooperating exporters encourage non-member growers who approach them

with supplies of berries to join either the cooperative or a regional grouping. If such growers supply these exporters, they cannot participate in the cooperative's pooled payout system for three years and the same applies to member growers who breach their contract by supplying exporters directly without permission from the cooperative.

2.2.5 Sales arrangements and pricing

Commission agents are employed by the exporter to facilitate sales to the importer. The agent arranges for customs clearance, payment, delivery from wharf to cool store, and also plays a role in seeking buyers. Exporters negotiate with their buyers over quantities and prices (generally f.i.s.) - e.g. the export firm uses written contracts to supply their U.S.A. buyers. The exporter also determines the buyers' requirements with respect to product form, packaging and presentation. It was emphasised that this information must be obtained directly from the buyer, rather than by relying on the agent. The exporter also has a policy of giving exclusive rights to just a single agent in each market region for a 12 month period. This was said to encourage effort and action from the agent.

The cooperative meets annually with its 'cooperating' exporters to discuss various aspects of their market strategy, and agreements tend to be informal rather than binding. It is worth noting that the cooperating exporters include at least one firm which does not obtain supplies from the cooperative - it competes for supplies but cooperates in export marketing. Agreements may be reached on minimum prices to seek from foreign buyers, quantities that are likely to be sold in each market at such prices, market sharing, and choice of agents. The cooperative seeks to limit the number of agents employed in the U.S.A. to increase their overall competitive position. The three major exporters use the same two agents, while two other exporters use the same single agent. The cooperative believes that the U.S.A. agents are a tightly organised group, and difficult to bypass. They all sell primarily to the one major processing firm.

2.2.6 Transportation

The exporter is responsible for organising transport to export ports and beyond. Containers are used to most destinations, and shipments are made from the ports of Nelson, Wellington, Lyttelton or elsewhere. The services of freight-forwarding agents may be employed. No problems with respect to shipping services were mentioned.

2.2.7 Financing and risk

Since exporters buy at a firm price from the cooperative (i.e. the grower), risks are borne by exporters rather than growers. The cooperative is also an exporter, however, so to this extent the risk is borne by member growers and is reflected in the size of their end-of-season bonus from the pooled receipts of the cooperative. Exporters also reduce their risks by selling firm rather than on consignment. Storage costs and freight are paid by the exporter, and the cooperative's storage costs are guaranteed by the exporter.

2.2.8 Promotion and market development

Both the cooperative and the export firm have a policy of market development in terms of developing new market regions and new product forms, and have invested considerable sums in these activities. This was encouraged through their observation that boysenberry production was declining in the U.S.A. (the only other commercial producer) while the demand for yoghurts and other health foods was increasing, that large production increases were 'on-stream' in New Zealand, and a belief that the product had much to offer as a dessert flavouring. The historical development of the exporting firm illustrates this. In 1977, exports of 100 tonnes were made, to the U.S.A. only. During this year, visits were made to retailers and buyers, as well as prospective agents, in Europe and Scandinavia to identify market needs. As a result of such visits and the provision of samples of the product, sales were made to these regions in 1978. A professionally-produced brochure

was introduced in 1979, and sales made to additional European countries as well as South East Asia and Japan. Boysenberries were exported to Canada for the first time in 1980, and total exports for 1981 are projected at 800 tonnes, with only a 25 percent reliance on the U.S. market. Thus the market has been expanded, not by decreasing prices, but by manipulating other variables in the marketing mix.

The cooperative shares the cost of developing the European market with the export firm, and joint financing of new product research and processing facilities was also mentioned.

The 'cooperating' exporters and the cooperative are planning a joint promotional programme, and suggestions have been called for from other exporters, agents and buyers. The 'New Zealand' product, rather than individual brands, are to be featured and the scheme could eventually be financed through grower levies. Prior to 1980, the exporters did not consider supplies of boysenberries sufficient to warrant such a promotional campaign.

Individual exporters also carry out promotion of their own brands. The cooperative, for example, is currently investigating a substantial campaign in Australia where market research indicated that sales could be increased fourfold at current prices. The suggested campaign involves the use of various promotional techniques and media, aimed at different market segments, and could be jointly financed by the cooperative and several Australian processors and retailers.

2.2.9 Market information

Day-to-day market information is obtained by telephone or telex from the exporter's agents and buyers. Considerable value is also placed on regular visits to foreign agents and buyers to gather market information and develop a relationship of mutual trust between the various parties. The exporting firm is aware of the need for still further information to

help in the rational development of products and markets, information probably not available solely from their agents or buyers. Trial shipments are also used to obtain information about the product and its suitability in the marketplace, while market information is often shared between cooperating exporters and the cooperative.

The export firm generally visits Department of Trade and Industry officials in New Zealand before setting out on an overseas trip. They found this service a valuable source of names and addresses of likely agents, buyers and other contacts. Further contacts are then usually made once the visit to the foreign market has commenced. The exporter appreciated that while the Department of Trade and Industry was in a good position to provide such information, he did not expect them to provide more specific details of the market.

Once an export crop has been placed in cool storage in New Zealand, the time of its sale is uncertain due to the uncertainty of future prices in foreign markets such as U.S.A. Formal procedures to forecast likely price movements did not seem to be used.

2.2.10 Coordination, competition and conflict

A considerable degree of coordination exists in this marketing channel, at least relative to that in some other channels under study. The cooperative has integrated backwards to ownership of production units, and forwards into processing and exporting. The exporting firm has also integrated horticultural production with its export operations. The cooperative achieves horizontal coordination of supplies of its members, and in some cases of non-member regional cooperatives or individual growers. Exporters value this development since procurement of supplies from a single source is more efficient than purchasing from many sources. Also coordinated in this way are product form decisions, grading, storage, packaging and internal transport, in line with the exporters' requirements. Further coordination could be achieved, especially between the major cooperative and

non-member regional cooperatives, with respect to grading and product standardisation, branding, and provision of freezing and cool storage facilities. A mechanism to allow such coordination between regional cooperatives has not yet developed. At present, some cooperatives may opt in or out of a coordinated approach, depending on the current profitability of operating independently.

Several examples of cooperation exist in the channel, and have been discussed under the various headings. These included cooperation amongst growers in setting up and maintaining cooperative organisations, and the joint programmes involving the cooperative and exporters with respect to pricing, choice of agents, promotion, processing, market development and diversification. Exporters and buyers may cooperate in promotion schemes, and exporters and the cooperative limit the extent to which they compete with one another for supplies as well as for buyers.

By joint planning of their market strategies and through the use of a limited number of foreign agents, at least some exporters have reduced competition amongst themselves to achieve a stronger selling position in foreign markets. This would appear to be valuable given the concentration of buying power in the major export markets. At the same time, existence of a strong growers' cooperative increases the growers bargaining position with respect to their buyers, the exporters.

However, not all growers belong to the cooperative and nor do all exporters act cooperatively in exporting. This can lead to conflict. For example, the major exporters considered some other exporters as 'poor market' developers', 'sellers and traders rather than marketers', 'weak or passive sellers', and 'price takers'. These criticisms stemmed from their belief that such firms relied on price to obtain sales in already established markets, rather than seeking new market regions and segments, perhaps with new forms of the product. Other exporters were also criticised for their alleged tendency not to go beyond foreign agents for market information.

The major exporters believed one of the strengths of the larger exporting firms was the range of products exported, both agricultural and non-agricultural, the smaller reliance placed on risky horticultural export crops, the firm's financial strength which allowed the taking of risks, initial losses and costly market development, and their marketing expertise. Some such advantages may not be experienced by the smaller or more specialised horticultural exporters or growers.

Conflicts exist between those exporters involved in joint programmes with the cooperative and other exporters, and sometimes between the joint programme exporters themselves due to the pricing activities of some firms, or due to the breakdown of informal pricing agreements. The example was given of a firm offering its consignment to several agents rather than agreeing with other exporters to restrict the number of their agents. The agents subsequently shared this information among themselves and believed a much greater volume was available for sale than was the case. Once a price had been arranged with this firm, the agent then requested a reduction of the price that had already been negotiated with the major exporter. In at least one case, the buyer withheld a percentage of his payment. The larger exporters believe such behaviour on the part of the New Zealand exporters affects the foreign agents' strategies in following years - a perceived lack of solidarity among New Zealand exporters may encourage foreign buyers to use their superior bargaining power to exploit the exporting firms.

2.3 Case Channel 2

2.3.1 Introduction

To gather information on this exporting channel for fresh strawberries, interviews were conducted with three export firms who between them handle something like 75 percent of the total New Zealand export trade. Interviews were also held with four other smaller exporters (including grower cooperatives) to gather additional information especially relating to matters of coordination and conflict.

2.3.2 Procurement of supplies

The two larger export firms obtain supplies in a similar way, mainly from individual growers. Each firm has its panel of 'approved' growers to whom virus-free plants are supplied at the beginning of the season. The exporters propagate their plants themselves, and seek orders from their growers from which propagation targets are set. At least one exporter had been researching tissue culture propagation of plants. If the exporter requires a greater volume of production than is indicated from the growers' plant orders, growers could be asked to increase production, or new growers could be sought. Any new growers are carefully evaluated however, since high product quality is imperative for export-standard fresh strawberries. These firms use their own trucks to collect supplies twice daily during the export season.

The third export firm purchases its supplies from individual growers and a local growers' cooperative. The latter organisation supplies all of its export fruit to this firm. This is in contrast to frozen strawberries, which the cooperative believes they can market adequately by themselves, as quality and timeliness are less important with the frozen product. Some members of this cooperative had exported fresh berries themselves, but difficulties in attempting to organise the marketing operation and finding time to negotiate with buyers whilst also organising the harvesting of the crop, all within a short space of time, reduced the profitability of the entire venture. The cooperative also saw value in the specialised exporter being able to assemble a greater volume of supplies from a number of sources including the cooperative, which leads to economies in transportation.

All exporters emphasised the high dependence of the timing of harvest and yields on the prevailing weather, which influences the speed of ripening. Available labour supplies also influence the quantities that can be harvested, and speed of harvest. These introduce uncertainties into the marketing operation.

2.3.3 Purchase arrangements and pricing

All three export merchants buy from growers at a firm price. This price is set by the exporter up to two months before the commencement of the season, generally for the entire season. The price may be raised, however, if local market prices increase, for example, prior to Christmas. At least the two larger exporters set their prices at similar levels.

2.3.4 Grading, packaging and quality control

Each exporter applies his own grading standards with respect to colour, size and weight. Incoming produce is inspected closely and unsaleable fruit rejected.

Grading and packaging takes place on the production unit, using packaging materials supplied by the exporter and bearing his brand. Fruit is packed into punnets (the weight of which depends on market requirements) which in turn are packed into trays. The trays are generally placed into a cardboard carton. Some exporters have used the D.S.I.R. to conduct research into package design to improve fruit quality.

Because of the high perishability of the product, quality control is maintained at various stages in the marketing process. Growers are carefully selected by the exporters who use field staff to frequently visit growers to check on crop husbandry and fruit quality during grading and packaging. On arrival at the exporter's premises, the fruit is placed in cool storage, and may be rapidly cooled using the 'forced air' technique. Individual growers often own small cool storage facilities to remove field heat from produce while awaiting delivery to the exporter. Freight forwarders, airlines and agents employed by the exporters also have responsibilities for placing the fruit in cool storage and monitoring temperatures, although the exporter's

control over the maintenance of product quality standards diminishes progressively as the produce moves further along the marketing channel.

2.3.5 Sales arrangements and pricing

Sales are made either at a negotiated c.i.f. price direct to the importer or through a foreign agent, or the agent undertakes to sell the produce by private treaty with the exporter indicating the desired minimum price. The initial buyer usually resells the produce to wholesalers and retailers.

One exporter indicated that because of uncertainties surrounding the level and timing of fruit supplies from growers, insufficient time sometimes existed in which to negotiate prices with the buyers. In such instances, fruit would be exported 'on consignment'.

At the start of the season, exporters reach tentative agreements with their foreign buyers or agents on prices and quantities. The latter understand that these are approximate only, due to supply uncertainties. Prices and quantities are firmed up as the season progresses, with the exporter and buyer keeping in frequent communication, e.g. requesting the buyer to take greater quantities or allowing him to find supplies elsewhere if the exporter cannot meet his requirements.

The exporting merchants may give exclusive rights to a single agent or buyer in each market region, and may also insist on loyalty from that firm. One exporter, for example, used a single agent in Los Angeles for all exports to the U.S.A. This firm would then re-distribute the produce to other regions such as New York, Boston and Texas. Formerly, a total of five agents were used in this country but these were reduced to one once the exporter had visited them and learned of their operation and performance. The agent handles documentation, cool storage and re-distribution either by air or with its own truck fleet. Sales are made by the agent at a firm price to wholesalers or retailers. The same exporter also uses a single agent in the U.K., who handles New Zealand strawberries only from this export merchant.

2.3.6 Transportation

One export merchant was located in Hawkes Bay, and bulks up export shipments in his own coolstores before consigning them to Auckland, generally using his own trucks because of problems in obtaining space on local flights. This firm uses a freight forwarding agent in Auckland who puts the produce into cool store, loads up containers, administers the booking of air cargo space and delivers to the appropriate air company.

Both other export merchants are more favourably located and their dependence on internal transport is less than for the Hawkes Bay firm. Produce is held in their coolstores, and trucked to their freight forwarding agents who load containers and deliver to the air line. Some exports are also made out of Christchurch, flown either to Auckland or to Australia for transhipment.

The exporters are required to make airline bookings three months in advance. Because of the uncertain day-to-day supply situation it is considered most important to keep the freight forwarder and therefore the airline informed of space requirements as the season progresses. Different airlines were said to be competitive with respect to freight rates, although some companies appeared to perform better than others in terms of product quality maintenance during transhipments.

2.3.7 Financing and risk

Each of the three export firms purchases supplies from growers at a fixed price and therefore accepts the risks involved. These risks may be reduced, though, by arranging sales at a negotiated price wherever possible rather than selling on consignment, and by giving exclusive rights to foreign agents.

Occasionally exporters sell 'on consignment' and therefore increase their level of risk, due to inherent uncertainties in day-to-day supplies. One exporter reported a certain wariness about the quantity of fresh strawberries

he would commit himself to export, because of the dangers of lack of air space or buyers in the event of unexpected heavy supplies.

Growers are generally paid within one to two weeks of supplying the exporter, and freight must be paid by the exporter immediately upon shipment. Some export firms also provide seasonal finance to their growers.

2.3.8 Branding and promotion

Each of the three exporters sell under their own brand. Promotion of these brands, or the product in general, does not appear to have been a major component of their marketing strategies however. One firm made use of attractive promotional cards, designed to be used with the carton as an in-store display. Another exporter's promotional efforts have been restricted to an in-store display of material in a Los Angeles retail outlet. The belief was expressed by one exporter that the New Zealand product was already well-known, that at the time of export New Zealand was a major supplier, and therefore promotional expenditure was not required. Another believed the product did not need promotion as such, since it is universally known. However, he saw as very important, the need to promote New Zealand as a source of supply.

2.3.9 Market information

Visits to foreign agents, and day-to-day telex or telephone communication with them are the major sources of market information. Agents commonly supplied information on product quality, current market prices and supply situation, and prices offered by other New Zealand exporters. Such information is used primarily to negotiate conditions of sale and to allocate supplies among market regions. Exporters appear satisfied with the quality of information received from their agents.

2.3.10 Coordination, competition and conflict

The larger export merchants encourage loyalty from their suppliers through the provision of inputs, namely virus-free plants and seasonal finance. Thus their supplies are secured to the extent that growers feel an obligation to market through these firms, rather than by using formal contracts. Production estimates are obtained from these growers early in the season to allow market planning to be initiated.

Assembly of supplies from the typical small producer is achieved either by the exporters themselves in their coolstores, or by grower cooperatives who may, like the firm in this case channel, choose to market through a single export firm.

The two larger export merchants exhibited a degree of cooperation and coordination. The firms use a similar package and maintain dialogue as to prices they are seeking with their buyers in various markets. There appears to be no cooperation however, among exporters in their approach to promotion.

Competition for supplies amongst exporters appears to have been reduced by the 'tying' of growers to export firms though provision of inputs, placing growers in a less-favourable situation with respect to price bargaining. Exporters have also restricted the number of their foreign agents to reduce competition among the sellers of a single export firm's product. Active price competition did appear to exist among the New Zealand exporters themselves, however, and caused conflict in the channel. Some exporters were critical of others who sold on consignment where this resulted in a price lower than those already negotiated by other exporters. This would encourage the buyers, with their greater cohesion and bargaining strength, to re-negotiate lower prices with their suppliers. Conversely, however, consignment sales on a strong market may result in higher prices than earlier contracted sales. One exporter said that consignment sales are frequently

essential because of the day-to-day quantity fluctuations which rule out definite quantity sales, unless purchases from growers are similarly restricted.

Conflict also arose when exporters failed to coordinate their sales activities. For example, a case was quoted where a foreign agent, after being offered a quantity of strawberries by several New Zealand exporters, believed that a much greater quantity was available. In actual fact the same consignment of berries was being offered by a number of different firms. Concern was expressed that the 'apparent' surplus could put downward pressure on prices.

Another source of conflict is between export merchants and some airlines. Despite assurances from the latter that certain quality control procedures would be followed, checks conducted by the exporter indicated that this was not always the case. As a result, exporters are placing more reliance on forwarding agents to carry out these functions.

3. LIVE PLANTS

3.1 Background

3.1.1 New Zealand production

No statistics are available on New Zealand production of either of the categories of live plants considered in this section - namely indoor plants and ornamental trees and shrubs. However, while production data is unavailable the general structure of the two sectors is clear.

Indoor plants are produced under controlled climatic conditions under glass, plastic, or polythene. The industry is dominated by two firms which between them account for about 60-70 percent of the domestic indoor plant market.

Ornamental trees and shrubs on the other hand are produced outdoors, possibly after initial establishment indoors, and are produced by a large number of nurseries throughout New Zealand. Some producers are wholesale nurseries supplying retail outlets such as garden centres; others are both producers and garden centre operators. The largest producer of ornamentals produces about two million trees and shrubs each year. Essentially most of the many small production units service markets in their immediate vicinity. The only available indication of the size of these industries is a Ministry of Agriculture and Fisheries estimate that in 1968 the area under registered nurseries was 732 hectares, with a farm gate production value of $5 million, while the 1979 farm gate value was estimated to be $40 million. This indicates substantial expansion over the last 11 years.

3.1.2 Destination and value of New Zealand exports

Live plants exports (including tree cuttings) have risen from $97,000 in 1972 to over $1.7 million in 1980.

No detail is available on the relative contribution of houseplants and ornamentals to the total other than that 42 percent of the 1980 value represented kiwifruit plants, and a further 6 percent were other fruit tree stock. Thus a considerable proportion were not technically houseplants or ornamentals - however, for simplicity, the discussion in this section will include fruit tree stock under the term ornamentals.

Japan was by far the single largest export destination primarily due to large imports of fruit tree stock, particularly kiwifruit. The second most important region was Western Europe which was dominated by the demands of the United Kingdom. Other important markets were Hong Kong and the U.S.A.

Table 5: Exports of Live Plants by Major Destination

($000 New Zealand f.o.b.)								
	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80[a]
Japan	148,598	127,783	82,281	33,778	60,116	256,719	678,636	740,377
Hong Kong	-	-	-	-	-	2,804	37,718	2,394
United Kingdom	10,758	16,390	18,693	30,088	72,153	146,950	173,734	434,838
Other W. Europe	67,436	118,461	12,770	50,234	58,442	37,995	88,326	182,299
U.S.A.	14,233	6,141	7,089	12,981	53,637	37,685	116,563	163,856

a. Provisional

Source: Department of Statistics

3.1.3 Form of export

Exports of live plants represent the export of a great diversity of individual plant sizes and varieties, and as such are difficult to classify in other than broad terms. For example up to 200 separate ornamentals may be listed in the price list of an exporter, with many being available in a number of sizes.

A further distinctive feature is the form in which they are exported. Plants are either exported without growing medium on the roots, or with medium. Most plants exported from New Zealand have all or most of the growing medium removed before shipment, and the plants are grown-on in the overseas market before moving to retail sale.

Part of the reason for this situation is regulatory, reflecting the phyto-sanitary regulations of the markets, and part economic. From a phyto-sanitary point of view most markets are prepared to take plants with some medium on the roots. For example most allow any medium, although the U.S.A., Canada and Japan insist that if the roots are in a medium that it be a mixture of peat and perlite - no soil is accepted.

The main reason for exporting 'bare-rooted' plants - that is those with little or no growing medium - is however economic. Without soil or other material considerable savings in weight and/or space, and consequently freight costs, are possible. Moreover, by growing the plants on in the overseas market before sale, smaller plants can be exported. No information is available on the proportions being exported as 'bare-rooted' plants, but probably up to 95 percent of exports are in this form.

Kiwifruit plants, which make up the main exports to Japan, are shipped bare-rooted and are sold to a merchant who resells directly to orchards. The plants do not therefore go through a growing-on phase as do most other plants.

3.1.4 Seasonality

Little seasonal demand or shipment pattern is apparent with indoor plants. On the other hand ornamental exports are highly seasonal, since they must reach the main northern hemisphere markets in the spring or early summer period. These plants, which are predominantly 'liners' or young plants for growing-on, must become established and adjust to a different season.

The seasonal pattern with ornamentals commences with growing from about May to early summer, and results in exportable plants of up to 12 months of age. Dispatch of plants to northern hemisphere markets begins around late March and for most plants is completed in about mid-July. Evergreens are dispatched in March, while deciduous plants are shipped beginning in June.

3.1.5 Structure of the case channels

One major channel dominates the export of live plants and is used for the export of both indoor plants and ornamentals. Other channels, which are minor variations of the main channel, are used for some plants but these variations will not be discussed here as separate channels, although comments will be made about them wherever appropriate.

The basic channel structure for both houseplants and ornamentals involves export by a small number of firms who are also the producers of the plants. These firms sell to nurseries in the main market areas who grow the plants on for varying periods and subsequently resell the plants to retailers. The plants exported from New Zealand are therefore young plants which are not of sufficient size or hardiness for retail sale.

In some instances the exporter sells to a merchant who in turn sells to a nursery, and the nursery may also resell the more mature plants to the merchant for subsequent sale to a retailer (not necessarily in the same country).

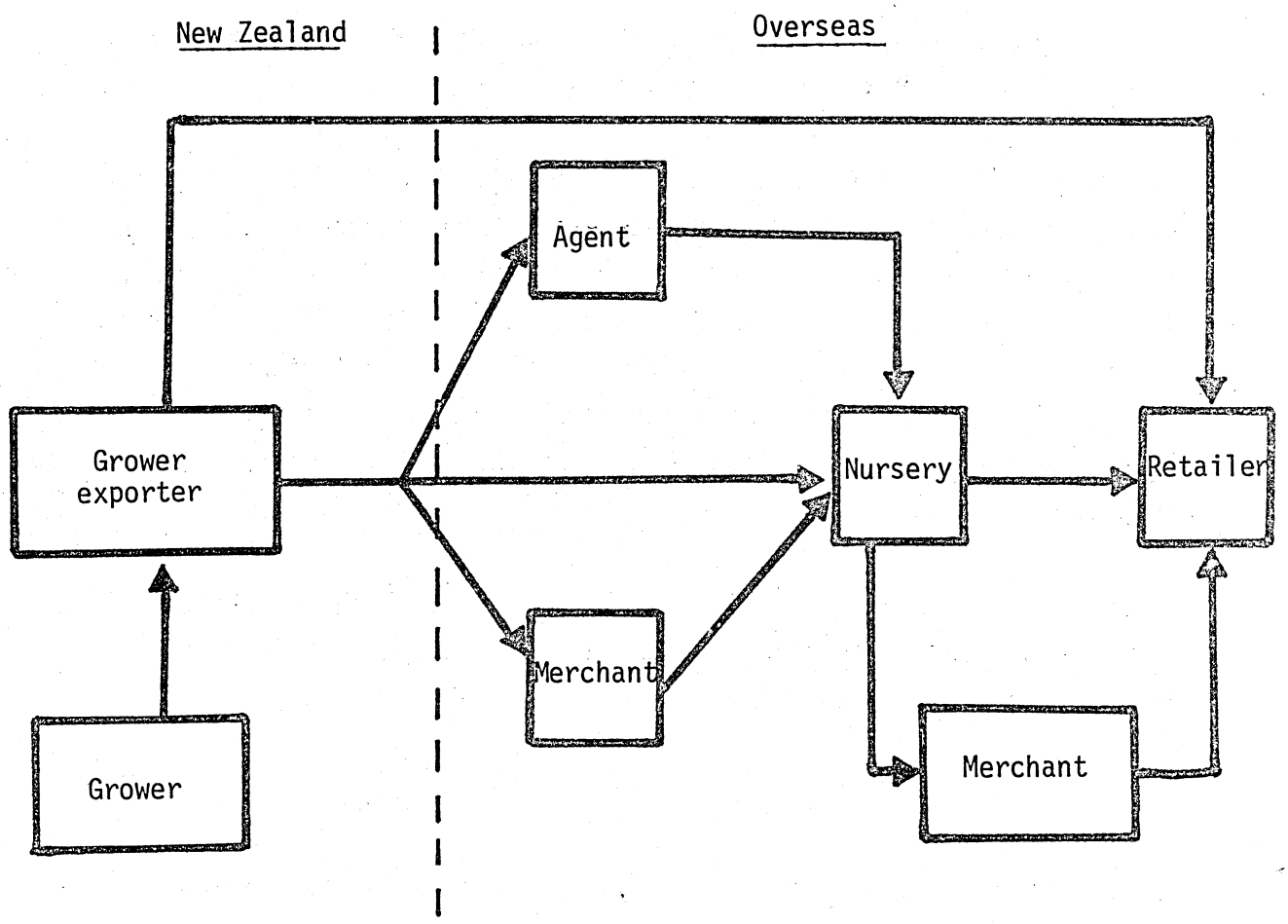


Figure 6: Major Channels of Distribution: Live Plants

Direct sale by the grower/exporter to a retailer in the overseas market only applies to the sale of potted indoor plants and is largely a reflection of sales to Hong Kong where no suitable growing-on facilities exist.

3.2 Case Channels

3.2.1 Introduction

Five exporting firms were interviewed and between them account for approximately 90 percent of the exports of live plants. Three of the firms are predominantly engaged with indoor plants, while the other two are largely engaged with ornamental plants.

The bulk of the plants exported by these firms are produced at their own properties, with only minor quantities being purchased from other growers. And in all instances the export sales are currently of minor importance when compared with domestic sales. This is not to suggest, however, that exporting is of little importance, merely that a strong domestic base is seen as an essential part of successful activity. Export levels ranged from less than 1 percent of total production to 25 percent.

In some instances the firms interviewed were established exporters, having supplied overseas markets for a number of years - in others, exports had just begun. Most however, were relatively experienced exporters.

3.2.2 Procurement of supplies, purchase arrangement and pricing

Three of the firms only export plants grown on their own properties. In the case of the other two firms purchases from others only represent a small proportion of sales for one of the firms, while representing total sales for the other.

Where plants are grown by other suppliers the exporting firm purchases the plants at a negotiated price, and exports them under its own name. In the main, purchases are only made from selected growers who are contracted to grow particular varieties. The plants are delivered to the purchasers' premises and packaged for export.

3.2.3 Sales arrangement and pricing

The method of developing sales varies considerably between firms and between markets. In Western Europe, the main market area, one firm uses an agent located in London as its regional representative. This representative is responsible for developing sales primarily in the United Kingdom, the firms major market, and France. Price lists are produced for sales 12 months ahead, thus the list which indicates the plants available and their prices refers to deliveries the following year. While every effort is made to maintain the prices during the coming year, adjustments may be made if necessary, particularly if costs such as air freight increase.

This same firm uses agents located in British Colombia and Texas as its representatives for developing North American sales. In other markets, the firm sells to wholesale nurseries who undertake the importing activities, or have them carried out by agents. These nurseries carry out the subsequent growing-on of the plants.

In some situations the other firms interviewed use formal price lists; in others they carry out negotiations with individual firms, providing price quotes as requested.

One firm with its major market in Western Europe sells to a merchant who subsequently resells to nurseries for growing on. Much of the material is subsequently re-sold to this same merchant by the nurseries. The plants are then largely exported to retailers in many other Western

European countries. Thus the market to which the New Zealand firm exports is not in fact the final destination of the grown plants.

To ensure future sales and the development of their markets all the exporting firms engaged in growing-on operations must ensure their buyers are capable of providing the care and attention necessary to establish and grow the plants.

Where indoor plants in pots are sold (primarily Hong Kong) the exporting firms sell to wholesalers in the market or direct to retailers. Price lists are available to the buyers, many of whom operate on a standing-order basis. All firms sell on a c.i.f. basis in the currency of the market being sold to.

For some of the firms this selling price is based on the New Zealand wholesale price plus exporting costs plus an additional margin for the greater uncertainty of export marketing. Since many prices are on a negotiated basis, the final price established must relate to prices being offered by other suppliers (both New Zealand and foreign).

3.2.4 Financing and risk

All firms attempt to reduce financial risks by selling at a firm price. No consignment selling occurs, and where possible contracts to supply over a period (often 12 months) are negotiated. A variety of payment methods are used depending on the reputation and standing of the buyer, ranging from bank draft before shipment, to term drafts of up to 90 days, and all firms insure their shipments.

3.2.5 Grading, packaging and quality control

Individual exporters use their own packaging and quality control methods, and in some cases provide their own grading system. This

latter relates more to the method used for raising the plant, and its size than to a formalised grading system. For example, the major outdoor plant exporter has a number of grade categories such as liners, one year transplants, one and a half year liners.

The plants of all exporters are primarily sold by variety, age and size rather than any formal grading on quality. Quality standards are specific to each producer/exporter, and all agree that only the highest quality is suitable for export markets. Since most exports are to be grown-on, they must be capable of successful re-establishment and subsequent growth, making only healthy, high quality plants suitable.

All firms interviewed place particular emphasis on ensuring only the highest quality plants are dispatched. One indoor plant exporter grows all export material completely separately from other material. This ensures that export market requirements concerning such things as variety, size and quarantine are assured. A second indoor plant exporter selects plants from domestic production and finishes them separately; in other cases where plants are specific to particular export markets the plants are grown separately for the complete period.

For outdoor plants, production intended for export may be grown specifically for anticipated orders; in other instances selection is made from general production.

In all instances therefore, there is a recognition that only the best plants must be exported. In many situations forward estimates of export market requirements must be made to ensure adequate plant numbers are available the following year (or years) and in certain instances specific varieties are developed with a view to potential export markets.

While different in minor respects, packaging for all firms is in waxed cardboard boxes. Each exporter usually carries out his own packing and exports under his own brand. Since most plants are for growing-on they

are wrapped in bundles in plastic, and placed in cartons which vary in height depending on the size of the plant and the variety. For ornamentals the exact method of packaging also varies depending on whether the plants are deciduous or evergreen.

Where potted plants are exported with the plants going directly to retail, a number of pot sizes are used depending on the size of the plant. In each situation the carton, the number of plants, and the size of pots must relate to the retail requirements. In particular, they must appear attractive to the buyer. Each company uses the same cartons for export as are used for domestic markets.

3.2.6 Transportation

All export shipments are carried out by air, largely through Auckland. Shipment to Auckland is either by air or road transport. The form of internal transport being used by the firms located some distance from Auckland is currently influenced by transport availability. Both major exporters in this situation expressed concern over deteriorating air freight space availability on domestic flights. One firm is finding increasing difficulty as its exports expand in getting space as required due to 'rationalisation' by Air New Zealand of flights to smaller centres.

The second firm located in a smaller centre has changed from air transport to Auckland to the use of bus services. This change has been made because of insufficient air freight space availability.

Each firm is responsible for making its own freight arrangements, and since all sell c.i.f., for payment of freight. To assist, some firms use freight forwarders located at Auckland airport, others prefer to undertake all activities themselves with the assistance of the airlines.

Broadly, the largest firms located near Auckland undertake their own activities since they may deliver orders to the international airlines shortly before flight departure; smaller exporters in a similar location use freight forwarders.

The use of freight forwarders by exporters more distant from Auckland appears to be partly related to the method of transport used to Auckland. Where air is used the international airlines and the domestic services are responsible for coordinating the dispatch; where bus is used a freight forwarder collects the deliveries, packs them into airline containers at its premises, stores under cool conditions if necessary until near departure time for the international flight, and then delivers to the flight. The use of the freight forwarder in this instance is for physical activities only - the exporter undertakes his own documentation.

Transportation is stated to be one of the major problems in exporting live plants. Of particular concern is the high cost involved for bulky products such as plants. Clearly this is a function of air freighting, and cannot be avoided; although sea freight is being trialed by one firm no alternative to air currently exists. Specific commodity rates are available and the three largest firms interviewed generally have little difficulty meeting the minimum requirement of 45 kg.

Concern was expressed that the basis of calculating the volume-weight was about to be changed with a resultant increase of up to 25 percent in the total freight bill faced by firms.

A second problem area mentioned was the uncertainty of space on Air New Zealand's Hong Kong flight. Because of problems with last minute unloading of shipments of plants one firm has been forced to use the more circuitous routes of Auckland/Honolulu/Japan/Hong Kong or Wellington/Sydney/Hong Kong even though transhipment is involved. An extreme example

of air-space problems to Hong Kong was quoted of the shipment of part of an order from Auckland, part from Wellington with collation of the order in Sydney.

A further problem was considered to be the lack of care taken by the airlines with many plant shipments. All firms were, however, satisfied with available air schedules which enabled plants to be in Europe within three days of packing at a smaller New Zealand centre.

3.2.7 Market information

Market information is obtained from:

- personal visits abroad
- New Zealand trade posts overseas
- feedback from agents and importers.

Primary emphasis is placed on regular personal visits to overseas markets by all firms. These visits serve to consolidate existing relationships with buyers, check on the growing-on procedures being used, solve problems that may arise, and identify opportunities. In some instances these visits also include displays at local Horticulture Society Shows. All established exporters considered these visits to be an essential means of identifying new varieties, future colour and size trends, and maintaining a feel for the market.

One firm just moving into exporting had used Trade Commissioners in a number of European markets to provide specified information regarding prospects for these markets. If prospects appeared attractive a personal visit would follow. Other firms primarily make use of the Trade Posts to arrange appointments and assist with itineraries. One firm with agents in three markets uses these as representatives of the company to develop opportunities. Close contact is maintained by

personal visits to these throughout the year.

Feedback through importers is considered important, but a degree of scepticism about some of the information provided is considered important.

3.2.8 Promotion

Promotional activity is generally restricted to personal communication, brochures, price lists and in one case display at Horticulture Society Shows. Since few plants were sold directly through retail outlets and few were varieties specific to New Zealand, the potential for consumer-level promotion is considered limited.

The impact of an attractive carton was considered of importance by most firms. Even though most sales are for growing-on the creation of a favourable quality image with the wholesale buyer is considered important.

3.2.9 Coordination, competition and conflict

All firms are active members of the New Zealand Nurserymens' Association (NZNA) and place importance on the degree of cooperation that is encouraged by this organisation. NZNA has a number of specialist groups within its overall structure where those with particular interests consider the problems of their group, share experiences, and foster the interests of the group. The firms visited were members of either the Houseplant Growers Group, or the Wholesale Tree and Shrub Growers Group, as well as a recently created Exporters Group.

One firm expressed considerable support for the value of the NZNA as a means of fostering cooperation and coordination, and particularly for its structure involving the specialist groups. This firm felt that other sections of horticulture could join the NZNA to their benefit, particularly cut flower growers.

The limited number of firms involved in exporting live plants and the close association even firms which compete strongly on the local market have through the NZNA, appears to have resulted in a willingness to work together where beneficial, while retaining a competitive situation. For example two of the firms had cooperated in their approach to the development of the Hong Kong market, while continuing to compete for sales.

No attempts have been made to cooperate in transportation to obtain larger shipments which meet the specific commodity rates, although even the largest firm finds it is unable to meet this minimum level for some shipments.

Because of the dominant position of a few grower/exporters - two firms for indoor plants and one firm for ornamentals - little undesirable competition or conflict is apparent in either of these areas. Some concern was expressed about problems that may arise if small inexperienced firms enter the main export markets, particularly smaller markets such as Hong Kong and Singapore. This concern is for the quality of the product that may be exported and the effect on the image of other New Zealand firms, rather than for any undesirable price competition.

4. CYMBIDIUM ORCHIDS

4.1 Background

4.1.1 New Zealand production

Considerable uncertainty exists about the level of New Zealand production of cymbidium orchids, since until very recently the industry was considered too small to warrant any significant effort to gather the necessary information.

The anticipated rapid increase in production over the next three to four years, with the pressure this is likely to put on finding export markets, has recently resulted in more interest in establishing a more accurate picture. Until this new information becomes available the degree of uncertainty about the industry is substantial.

For example, the only review of production suggests:

> "There are at least 50 commercial growers and possibly 100 or more. The majority are relatively new growers, family units, with 3000 or more plants."
>
> "The number of plants of all stages of growth and maturity ..... in 1979 was about 680,000."
>
> "A rough estimate of distribution of plants for cut flower production is as follows: Northland 5 percent; Auckland 40 percent; Bay of Plenty-Waikato 35 percent; Hawkes Bay-Poverty Bay 10 percent; Taranaki-Wellington 10 percent."
>
> "New Zealand hobby growers - about 3000 of them, grow every type of orchid including cymbidiums."[1/]

1/ Ministry of Agriculture and Fisheries "New Zealand Orchid Industry Analysis", 1980.

Production of cymbidiums was relatively static up to about 1977, but following the government-convened symposium on horticulture and the resulting'euphoria' on horticulture's prospects, increased interest in production arose. Prior to that time, production and exports were dominated by, and basically limited to, five large growers. Estimates of the profitability of cymbidium exporting, and the free availability of loans for horticultural exporting enterprises, particularly through the Rural Bank, has stimulated the considerable expansion that has occurred since that time. Production is seen as likely to increase rapidly in the future.

The uncertainty of future expansion is indicated by the estimated level of production that will be available for export by 1984 - projections vary from 10 million to 20 million blooms. (1980 exports were about one million blooms.)

4.1.2 Destination and value of New Zealand exports

Prior to the 1978/79 trade year, separate statistics for orchid exports were not published.

The value of cut flower exports totalled $124,000 in 1973/74 and by 1979/80 had risen to $1.1 million. Of the 1979/80 value, 54 percent was accounted for by orchid exports, down from the 64 percent these represented in the previous period.

On the assumption that a high proportion of cut flower exports in 1973/74 were cymbidium orchids, exports have expanded rapidly in the past seven years. Exports increased by 23 percent in 1979/80 alone, over the previous year.

The main markets supplied were Italy, Japan, Switzerland, U.S.A., Netherlands and West Germany. Some 65 percent of exports were directed to Western European markets in 1979/80.

While the importance of Western Europe is obvious the actual markets in which the flowers are eventually sold are not quite as obvious from the statistics. The published statistics reflect the country to which the exports were consigned. To a degree, many flower imports are subsequently re-directed to other countries within Europe - the point of entry is merely a distribution point.

Table 6: Exports of New Zealand Cut Flowers

	1937/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80[a)]
			($000 f.o.b.)				
Orchids	NA	NA	NA	NA	NA	486	600
Total Cut Flowers	134	195	275	475	425	754	1117

a. Provisional
Source: Department of Statistics

4.1.3 Structure of the channels

Two broad channels are used for the export of cymbidium orchids. In the one used most commonly growers carry out their own export operation, selling to merchants located in the overseas markets. This channel has been dominant because a small number of relatively large producers have been the only growers of any consequence. Further, little difficulty has been experienced in finding export outlets for the quantities involved.

A recent modification of the basic channel has been the activity in New Zealand of a large West German merchant. This firm is now making regular visits to New Zealand (as part of a wider itinerary) and arranging purchase of orchids from growers. Essentially therefore, it undertakes the exporting activity.

The second basic channel used, again one of relatively recent origin, is the introduction of New Zealand merchants between the New Zealand grower and the overseas merchant.

In both basic channels merchants are involved. In one, the major channel to date, the New Zealand growers carry out their own exporting activity but sell to overseas merchants; in the other, New Zealand merchants undertake the export activity.

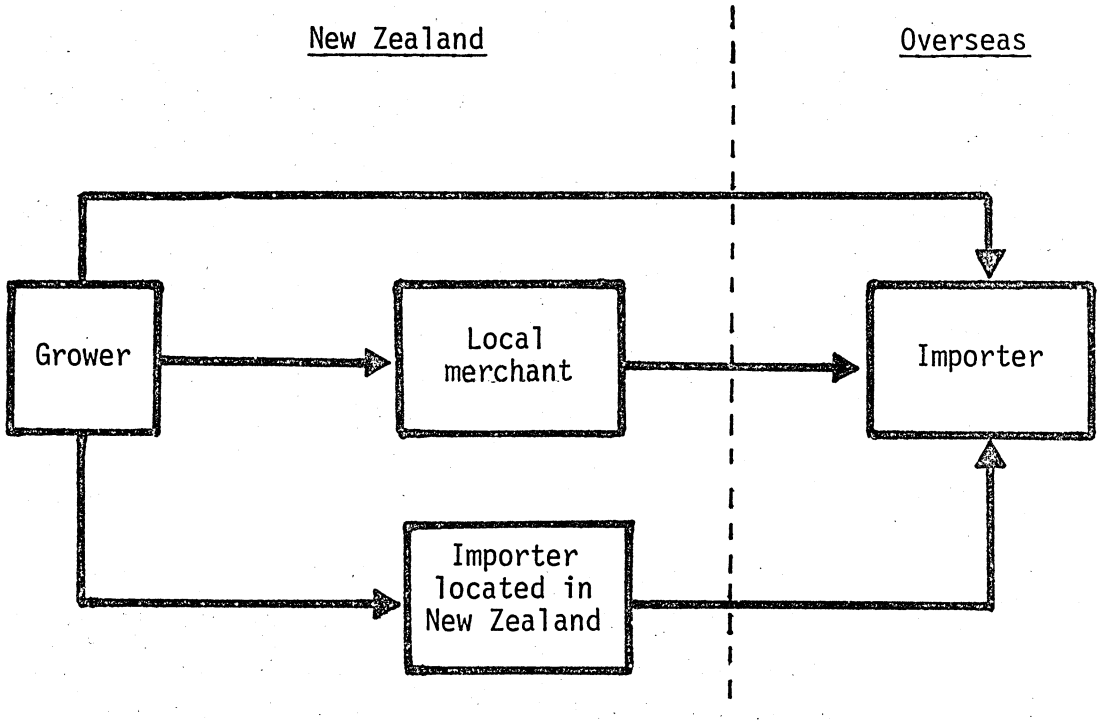


Figure 7: Major Channels of Distribution: Orchids

4.2 Case Studies

4.2.1 Introduction

Interviews were held with seven exporters of cymbidium orchids of which five were grower-exporters and two export merchants. These firms accounted for approximately 85 percent of New Zealand production and over 90 percent of New Zealand exports which currently are estimated at over one million blooms.

Apart from one grower and the merchant interviewed, all other firms were only involved in the export of cymbidium orchids. They therefore represent specialist growers in the main whose sole income is derived from orchid production, and who generally are almost completely dependent on exports, with 80-90 percent of their production being exported.

Most growers visited, being the largest growers, combine flower production with hybridising, mericloning, selling plants and importing and exporting plants and flasks.

The merchants purchase flowers from numerous growers but only small quantities are purchased from the large growers interviewed.

The main export season is August-November, with limited supplies available both earlier and later (May-December).

4.2.2 Procurement of supplies

In those situations where the grower carries out his own exporting, no procurement is necessary.

For the merchants, purchase takes place from numerous small growers in

a number of locations throughout New Zealand. The grower may undertake the packaging, or have the blooms packaged at centres in various locations, or ship directly to Auckland, the export port.

In addition to direct sale to the exporter, the grower has the option of selling on consignment, in which case the merchant acts as the exporting agent. Under this latter system the grower retains the export tax incentive.

In the main the merchants undertake the export of blooms produced by numerous small growers, although some purchases have been made from the large growers who carry out their own exporting.

4.2.3 Purchase arrangements and pricing

Where supplies are purchased by the merchant rather than exported by the grower, a fixed price is indicated to the growers before the season starts, with subsequent adjustments being made throughout the season, as necessary.

The price is based on overseas market conditions.

Two points of purchase are used:

(a) at Auckland airport with the grower paying freight to Auckland;
(b) at packaging centres organised by one of the merchants, with the exporter paying freight to Auckland.

In the first instance, the cost of packaging materials is deducted from the price paid; in the second, the price paid may be either for the flowers supplied to a packaging centre, or a price for packaged flowers delivered to a packaging centre. In the latter case, the grower receives a higher price.

4.2.4 Sales arrangement and pricing

Almost all sales by the exporters are made on a fixed-price basis, either c.&.f. or c.i.f. in the country of import. The price, quantity and period of delivery for each shipment is negotiated with the importer.

The outcome of these negotiations is very much dependent on the market conditions prevailing at the time or anticipated over the period of delivery, and the exporters' level of market information relative to that of the importer.

As with any price negotiation the buyer is seeking the lowest price subject to obtaining adequate supplies, while the exporter is seeking to sell his total supply at the maximum price.

Where the arrangements are made with the West German importer in New Zealand, the grower/exporter effectively ceases to be the exporter for that quantity of orchids. In this situation this firm is both the importer and exporter since he purchases the flowers in New Zealand and organises all export activities in a similar manner to that of New Zealand merchant firms.

Some price competition between New Zealand exporters was mentioned. Some exporters were stated to be more concerned with the quantity being moved than achieving the maximum price, a situation which weakens the price negotiations of others, since most deal with the same importers.

4.2.5 Financing and risk

Once a fixed price has been negotiated all market risks are taken over by the buyer, assuming sale has been made by letter of credit or the

reputation of the importer has already been established.

In those situations where the merchant purchases from the grower, payment is usually made within 20 days of delivery of the flowers. The merchant is then responsible for the credit arrangement made with the importer, and stands any risks of bad debts or cost variations. Where sales on consignment occur the one merchant interviewed operates a pool account with all flowers of a given grade sharing in the returns for that month.

This system differs from the consignment method, which relates to a price for the particular consignment(s), with the merchant receiving 10 percent commission, and possibly a further percentage (about 2½ percent) for documentation activity.

4.2.6 Grading, packaging and quality control

Quality is an important feature with cymbidium orchids since they are sold to the high-priced retail florist sector. The blooms being exported vary in quality between suppliers, and there is a range of opinion on the extent to which grading should be undertaken. Some exporters spoken to felt that buyers were opposed to any grading; others felt grading to be an important activity.

One merchant firm interviewed has developed its own grading standards with orchids being graded into four classes, with further grading based on the number of blooms per stem. Other exporters operate informal systems based more on a decision of which flowers are of export quality, and which are not.

Growers use their own packaging systems, and except where flowers are sold to the merchant at packaging centres, undertake their own packaging .

The packaging centres mentioned reflect efforts to cater for purchases from numerous small growers and the consequent need to standardise quality and packing methods.

Blooms are generally exported in cardboard boxes, with the stem inserted in a sealed test tube of water; individual flowers are packed in foam and/or shredded paper and wired into place to restrict movement.

A new system developed by one exporter features the placement of each stem in a sealed plastic sleeve. Test tubes of water are not used, and the lack of paper or foam enables greater numbers of flowers to be packed per box. The effectiveness of this system of packaging is currently being evaluated, but successful sales have occurred.

4.2.7 Transportation

The fragile and perishable nature of orchids makes air freighting an essential part of their export with Auckland being the principal export port. Orchids produced in the Auckland region are delivered to Auckland Airport by truck; those from more distant areas are dispatched by internal air services.

All but one exporter uses freight forwarders and in most cases documentation is carried out by the forwarder or other specialists.

The freight forwarders are responsible for booking export space, identifying the most suitable flights to use, ensuring transfer from internal to international flights, all necessary documentation, and in some cases, the bulking of supplies from a number of growers into container loads.

Orchids may take advantage of a specific commodity rate for cut flowers. This rate is substantially lower than normal rates but shipments must be

not less than 45kg.[1/] This level can be met with a shipment of six to eight boxes of orchids, but even the larger export/growers have difficulty meeting this level at certain periods, or for shipments to certain markets.

Air freighting was seen by many exporters as a particular problem. Of note are problems through:

(a) reduced freight capacity at smaller New Zealand centres as flights are reduced or products competing for limited space increase;

(b) poor coordination between internal flights and international flights;

(c) lack of guaranteed space, even when prior bookings are made. Instances were mentioned where flowers were off-loaded up to half an hour before departure when the space was required for other purposes;

(d) poor handling when transhipment is necessary.

In particular, shortage of space and/or increased freight rates were seen as critical future problems.

4.2.8 Market information

Overseas visits, telephone communication and telex are the main means used for acquiring market information from overseas importers and agents. Grower/exporters do not generally own telexes since the cost cannot be

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1/ Calculated on volume or weight whichever is greater. Volume is converted to weight using the formula:

$$\text{Vol. kg} = \frac{(\text{height} \times \text{length} \times \text{width})\ \text{cm}}{7000}$$

justified because of the size of the firm's activities, and overseas visits are only undertaken on a regular basis by some of these exporters.

Although exceptions do exist, generally information is obtained on a haphazard basis and usually only relates to current supply and demand conditions which determine the sale price being negotiated. Most exporters have developed sound relationships with a limited number of importers through regular trading over a period of years, and place heavy reliance on these as a source of information.

While some information is shared between exporters, in most situations this is primarily general information such as, for example, whether markets seem strong or weak or the standard of blooms being exported. Any more detailed communication between the major exporters is on a personal basis between a few individuals who from time-to-time coordinate sales to the extent of, for example, agreeing on the importer each will deal with in a particular market.

Meetings have been held twice a year between most growers and exporters and some information is reportedly shared, although views on the extent of this sharing vary considerably.

Overall, choice of markets appears to be largely based on past dealings and new contacts developed during overseas visits, rather than on the basis of detailed market analysis. An improvement in this situation is currently underway with the Horticultural Research Unit having undertaken studies in a number of areas, together with moves by the Horticultural Export Development Committee (H.E.D.C.) to encourage greater industry awareness and planning for cut flowers in general.

Information on potential buyers or the referral of enquiries from the Department of Trade and Industry is seldom used, and considered by many exporters to be of only limited value.

4.2.9 Promotion

Essentially the only promotional activity undertaken involves personal contact during overseas visits, the appearance of the box the orchids are shipped in, and in a few instances the insertion of attractive showcards in the boxes. In some cases the exporters' name does not appear on the box at the stated request of the importer.

4.2.10 Coordination, competition and conflict

The degree of coordination between exporters is currently in the process of considerable change as the need becomes more widely recognised. In the past there have been regular meetings between some of the main exporters at which some general information has been shared, while isolated cases of the distribution of more detailed information were exampled. There does, however, appear to have been considerable dissension amongst some exporters.

Views on the detail of the information shared and the extent of cooperation varies considerably. Overall, however, apart from isolated cases this coordination appears to be primiarly of a broad nature. While prices may be mentioned this is not on the basis of specific markets. Since firms are involved in private transactions and are obviously concerned firstly with their own financial situation they are understandably cautious with detailed information.

Coordination of supplies only occurs in the amalgamation of supplies from a number of growers by the export merchants; or via the freight forwarders where they act on behalf of importers.

Few attempts to coordinate shipments between exporters to take advantage of the specific commodity rates, or to rationalise the flow of supplies

on to any market occur. To a degree, to date the relatively small total exports from New Zealand have made this coordination of only minor value. There does, however, appear to be much greater need arising as production increases and particularly as more pressure is placed on the total air frieght space available.

Isolated instances of price competition were reported, particularly on the European market where a limited number of orchid importers have been dealing with New Zealand exporters. In these situations, it is to be expected that a degree of competition will arise, particularly when supplies are at their peak. Lack of cooperation between exporters appears to result in the importers being able to play one exporter off against the other, since exporters are unaware of prices others have agreed to or the level of supply others have available for shipment. This problem may become much more critical as New Zealand production increases.

Some concern was expressed about exporters who appear more interested in selling larger quantities than achieving maximum prices. In these situations, their willingness to settle for lower prices has reportedly put pressure on the prices of other exporters.

The industry as a whole has a wide range of views on the extent of coordination currently occurring and the extent and most appropriate method that should occur. Attempts are being made to increase the degree of cooperation but the views of those in the industry vary considerably. They range from those favouring cooperation to those who feel any cooperation is unnecessary and undesirable. Even amongst those with a more favourable view of cooperation there is disagreement on the appropriate body to work through. If the greatly increased supplies projected to occur in the next few years are to be absorbed on world markets without heavy downward price pressure, considerably greater coordination of individual shipments to particular markets, and the avoidance of price competition between exporters may be necessary. Encouraging signs suggest that improved coordination is likely to occur. Whether it will extend to supply coordination will remain to be seen.

5. ONIONS

5.1 Background

5.1.1 New Zealand production

During the 1970's, onion production in New Zealand more than doubled, due mainly to large increases in the area planted in Pukekohe. This is now the major export region, supplying over 70 percent of the total export crop (see Table 7), with many growers having made considerable investment in plant and equipment specifically for export production. Shipping problems out of Hawkes Bay and Canterbury have contributed towards a decline in importance of those regions as export suppliers. Apart from 1975 and 1978, when exports were well below trends,[1/] the domestic disappearance has been between 18,000 and 25,000 tonnes.

Table 7: New Zealand Onion Production and Exports

Year	Total Area[a)] (ha)	Total Production[a)] (tonnes)	Total Exports[b)] (tonnes)	Exports as % Production	Pukekohe Area as % Total[c)]
1970	1023	31460	9772	31	..
1974	1267	37778	15486	41	35
1975	1415	43854	9575	22	69
1976	1445	49170	19683	40	66
1977	1688	56666	41119	73	71
1978	1820	59313	26635	45	71
1979	2047	66745	43359	65	73

a. Fresh market only (process plantings have been around 5 percent of those for the fresh market). Years ended 31 October.
b. Years ended 30 June.
c. Personal communication, R. Wood, Ministry of Agriculture and Fisheries, Pukekohe.

Sources: Department of Statistics
Horticultural Statistics, Ministry of Agriculture and Fisheries

1/ During the interviews, some growers indicated that in years of low export and domestic prices, onions may be left on the paddock rather than harvested.

5.1.2 Destination and value of New Zealand exports

Japan and the Asia/Pacific region are the major export destinations, both exhibiting a positive growth trend in the quantities imported from New Zealand. Major fluctuations occur about this trend though, depending on the location of national crop surpluses or deficits. As a result, the major export market changes from year to year, e.g. this was Japan in 1976, U.K./Europe in 1977, and Japan since 1978 (see Table 8).

Table 8: Destination and Value of Onion Exports

Years ended 30 June	1970	1974	1975	1976	1977	1978	1979	1980[a]
North America (%)	21	8	2	-	21	1	1	-
Japan (%)	26	50	14	40	6	65	60	49
United Kingdom (%)	2	1	15	9	20	-	-	6
W. Europe/Scand. (%)	2	-	18	15	34	1	6	13
Asia/Pacific (%)	35	27	41	24	14	20	22	32
Australia (%)	12	12	7	11	1	-	1	-
TOTAL (tonnes)	9772	15486	9575	19683	41119	26635	43359	41726
Value (f.o.b., $'000)	819	2273	1197	3697	8634	4369	8887	6184
Value (f.o.b., $/tonne)	84	147	125	188	210	164	205	148
Deflated Value (f.o.b., $/tonne)[b]	-	114	87	118	113	78	89	52

a. Provisional
b. Deflated by the All Farming Costs Price Index (1971=1000)

Source: Department of Statistics

The total f.o.b. value of onion exports has increased over the 1970's to reach $8.9 million in 1979. However, the average f.o.b. return per tonne has fluctuated somewhat, especially notable when these returns are deflated.

5.1.3 International competition

In Japan, the early domestic crop is marketed from April, while their main season is from July to September. Storage extends their marketin period by six months to February or March, although quality steadily declines over this period. The New Zealand crop is mainly exported over the February to March period, so some competition is experienced from both the stored and early domestic crop, although the quality of both is recognised by buyers to be below that of the New Zealand product. Competition between New Zealand and other export sources is restricted in the main to the U.S.A. at the beginning of the New Zealand sales period, and Taiwan in the later part of that period. Both these countries have lower production and freight costs than New Zealand. Australia also competes with a high quality product although shipments tend to be irregular, due partly to shipping problems. In 1978 the share of Japan's total onion imports (by volume) of Taiwan was 19 percent, that of the U.S.A. was 49 percent, and of New Zealand, 20 percent. In the following year, New Zealand was the major supplier to Japan, and competitors included Korea, the Philippines and China.

5.1.4 Structure of the channels

Interviews were conducted with personnel from eight firms, representing two broad alternative marketing channels.

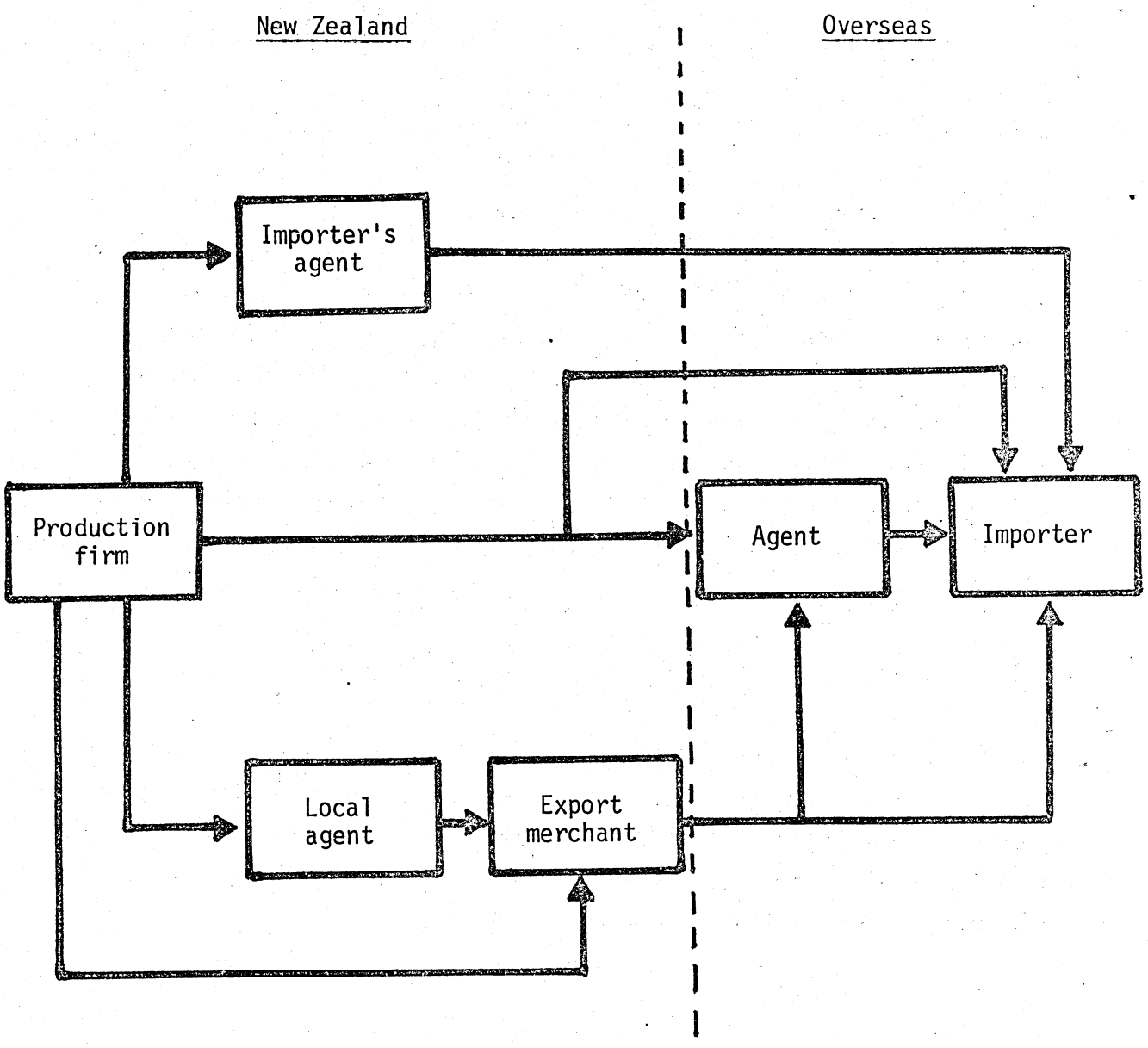

Figure 8: Major Channels of Distribution: Onions

The first involved direct dealing between the grower and the importer, in some cases though the importer's agent in New Zealand. The second channel involved (generally lower-volume) growers, export merchants who sometimes obtained supplies through a local agent, and foreign agents and importers.

5.2 Case Channel 1

5.2.1 Introduction

The three production firms between them exported around 20,000 tonnes of onions during 1979, or about 43 percent of the New Zealand total exports of this crop.[2/] Their major market is Japan, with smaller quantities shipped to Europe and the Pacific. These firms originally exported through export merchants, but subsequently became exporters themselves due to their expansion in production. Two of these firms also said that dissatisfaction with the level of marketing performance of the export merchants especially in years of over supply was another reason. One of these firms has been exporting on its own account for only two years.

5.2.2 Procurement of supplies

Two of the firms produce their own export supplies, while the third produces the greater part of its requirements, purchasing the remainder from other growers in the region. In 1979 for example, this firm produced two-thirds of its export requirement. Thus far, no difficulty has been experienced in procuring such additional supplies.

2/ For one of these firms, 1980 was the last season in which onions were produced. This firm has decided, for economic reasons, to cease onion production and to expand production of alternative enterprises.

5.2.3 Sales arrangements and pricing

One firm arranges its U.K. and European sales through a single commission agent in London, who is responsible for obtaining buyers prior to the ship's arrival or arranging for the shipment to be sold by private treaty on a wholesale floor. Sales are made on either a 'guaranteed advance' or 'on consignment' basis. Exports to Japan are contracted with a few medium-to-large trading companies. Price is negotiated on either c.i.f. or c.&.f. basis.

Another firm employs a commission agent in London for 'on consignment' sales to the U.K., but for European or Japanese sales the experience is that the majority of buyers prefer to negotiate a c.i.f. price on some specified quantity. This firm does not have formal contracts with Japanese buyers, who typically contract for much larger quantities than he alone can provide.

The third firm, whose export volume is by far the largest of the three, also exports primarily to Japan, but also Europe and the Pacific. This firm became familiar with a number of agents during its association with export merchants, from whom it selected its existing agents. European sales are made direct to one of the largest food importing organisations in Scandinavia, who is the firm's only buyer in Europe. In return, this buyer agreed to limit its number of onion suppliers. Contracts are drawn up each year, specifying method of packing, bulb size, destination and c.i.f. price. The firm receives 80 percent of that price on shipment from New Zealand, and the balance on arrival of the shipment subject to its outturn. In some years, European prices are not sufficiently high to adequately cover the freight costs of around $300 per tonne and other marketing expenses, and sales cannot be negotiated. Export sales to Japan are made through four firms - two large Japanese trading companies, one smaller specialised Japanese importer, and a Japanese subsidiary of a U.K. firm. Sales to the latter company were initially made through the parent company's New Zealand subsidiary, but by dealing direct with the Japanese firm, savings were thought to be made on commission payments. Like the three other importers,

this firm had established sales channels in Japan. The exporter knew little about Japanese sales channels for vegetables, other than that they were very complex. He believed the four importing companies would re-sell the product to supermarkets, other retail outlets, and primary and secondary wholesalers. Re-packaging of the consignment was believed to be a common practice. Contracts are negotiated with the importers, that may or may not specify the quantity to be supplied, with the negotiated c.i.f. price being settled at a later date. Contracts and conditions of sale are negotiated through the Japanese importer's agent, some of whom are situated in New Zealand thereby improving communication between buyer and seller.

5.2.4 Grading, packaging and branding

The export crop is graded and sized according to buyer requirements if specified. Onions are commonly exported in 20kg sacks, although the use of bulk bins is becoming more common, resulting in savings in handling costs both on the farm and beyond. This practice would also facilitate re-packaging by Japanese buyers.

Each of the three exporting firms had their own brand(s). One used the same brand for sales in all markets - any advantages resulting from multiple brands were judged insufficient to compensate for additional costs due to their use (e.g. instructing workers to pack into the required bags).

Another also used a single brand, but for somewhat different reasons. Although some of his buyers requested exclusive rights to his product, he preferred to offer exclusive rights only to a brand and intended to introduce a second brand. However, because of this grower's less favourable location with respect to export ports, he has recently scaled down the size of his export onion enterprise to a level judged insufficient to justify the expense of sorting into two brands (see footnote 2, Section 5.2.1).

The third firm makes use of four brands in Japan, one for each of its four buyers. Because of the relatively large number of middlemen who may handle the product before it reaches the retail outlet, some insurance was sought against the firm's product falling into disrepute due to poor handling or marketing at some stage in the distribution channel. The use of multiple brands is this firm's solution, since it is only that portion of the total crop marketed under the affected brand, rather than the entire crop, that would suffer.

5.2.5 Transportation

Each firm is responsible for making shipping arrangements and for payment of freight costs. In each case, onions are trucked or railed to the wharf for shipment to the export destination. With the concentration of production in Pukekohe, Auckland is the principal port, although one of the firms is located in Hawkes Bay and sends some shipments through Napier.

All three firms were critical of available shipping services, with respect to timetables and frequency of service, available space and the uncertainty of obtaining space. Each firm had followed a strategy of booking shipping space as far ahead as possible, i.e. 1-3 months prior to shipment, and reconfirming bookings as more information about the size and timing of the harvest comes to hand. At the same time, they were critical of other exporters following a somewhat similar strategy when this involved last-minute cancellation of shipping space. In such cases, insufficient time may exist for other exporters to assemble shipments to take advantage of such space.

In response to the intense competition among exporters for shipping services, these three export firms have worked together to charter ships in both 1979 and 1980. This is an extremely risky undertaking, since each charter may cost up to $0.5 million, and four ships were chartered in 1979.

At least two of the firms had also used the services of the New Zealand Apple and Pear Marketing Board in obtaining shipping space. The ships are refrigerated and considered ideal for the transport of onions, but are loaded at Napier for U.K. and European ports. The Hawkes Bay firm was satisfied with the service obtained, but the Auckland firm had experienced problems in coordinating the assembly of supplies in Napier with the shipping requirements, in damage in transit between Auckland and Napier that required re-sorting and packaging, and of course, the additional freight cost to Napier. Also, this service does not overcome problems of shipping to Japan, a country with which the Board cannot presently trade in apples.

5.2.6 Financing and risk

Each firm has taken steps to reduce financial risks, although two of the firms makes some sales on a consignment basis. Two firms make use of a guaranteed advance system of payment, while letters of credit are commonly used in trade with Japan. Buyers in the Pacific Islands were said to be not interested in the use of letters of credit, and payments are usually made on monthly statements with some resultant bad debts.

5.2.7 Promotion

Each of the three production firms restricts the promotion of their brands to personal visits to their agents and buyers, an activity that all valued highly. Mention was also made of the promotion campaign funded by the Onion Export Shipping Committee, involving the placement of advertisements in selected European trade journals along with the names of agents handling the New Zealand product.

5.2.8 Market information

Market information is gained from the following activities -

- use of the New Zealand Vegetable and Produce Growers (Vegfed) onion market intelligence system
- personal visits abroad
- feedback from agents and importers.

All three firms subscribe to the Vegfed market intelligence system that utilises data from United States and Japanese sources. One firm believed the service to be invaluable, and used it to note opportunities for sales (in which case he would contact his overseas agents) and to assist in the negotiation of 'fair' prices with his buyers. Another firm, in similar vein, placed great importance on official sources of market data as a source of information independent of his agents. However, this firm was more critical of the Vegfed scheme, suggesting it was not sufficiently regular and timely, especially over the Christmas period when contracts and shipping requirements were firmed. Consequently, access was arranged privately with the same Japanese and American sources used by Vegfed. The third firm highlighted the problem of obtaining reliable market information at the time planting decisions are taken. Land is prepared during March-April (for the first crop to be planted in June or July) at which time little is known of export prospects for the February-April selling period of the following year. This firm did not obtain a firm idea of the size of the Northern Hemisphere crop until September.

Regarding personal visits to markets, one firm was working toward a target of visiting Japan annually for marketing discussions with its buyers. This firm had also observed many individual exporters, often neighbouring growers, all making visits to the same overseas markets due in part to the export incentive schemes available.

Another exporter has been paying annual visits to overseas markets and agents since 1975, and values the personal relationships and trust that has developed as a result. During these visits, price and quantity

negotiations for the coming season would be commenced.

Likewise, a representative from the third export firm would visit Japan each year, during September. By that time, the size of the domestic Japanese crop can be assessed and therefore the likely demand for imports from New Zealand could be estimated. As well as discussions with importers, this firm makes a point of visiting production districts in Japan and meeting local growers. Visits are also made to Europe, but on a less frequent basis. Great value is placed on overseas visits as a means of obtaining market information in relation to supplies, prices and competitors' positions, as well as strengthening personal links with the firm's buyers.

Two of three production firms have telex facilities in their offices, while the third relies on the telephone for frequent communication with agents. Their services were said to be invaluable for day-to-day communication with respect to their buying and selling operations and negotiations. Feedback from their agents is also relied upon to inform the producing firms of any quality problems. The management of the largest firm had not seen his product at the retail level, but believed he would soon learn of any quality problems via his agents, should they occur.

5.2.9 Coordination, competition and conflict

A significant degree of cooperation was observed between the export firms within this channel. Mention has already been made of cooperation in planning their shipping programme, and in the joint chartering of ships. This implies coordination of harvesting and assembly of shipments between the three firms which, as mentioned earlier, produced over 40 percent of the total New Zealand export crop in 1979.

They also follow a coordinated approach with respect to pricing, reaching agreement on their asking prices prior to negotiations with their agents and buyers. Both these are examples of horizontal coordination.

Vertical coordination is achieved due to the specification of contracts between seller and buyer, and to each firm producing its own supplies. As the manager of one firm said, they have known supplies which in turn assist in the negotiation of contracts, and known buyers. Such a degree of coordination greatly simplifies the task of arranging for shipping space and reduces the risks involved in chartering their own vessels.

Some conflicts were apparent between the exporters of this channel and exporters in other channels. These related to competition for shipping space and late cancellation of space due to a lack of coordination between alternative export channels, and competition between exporters when seeking buyers. It is apparent that scope for further cooperation among export channels exists on these matters, and in fact opinions obtained later from other sources suggested that these conflicts had already been overcome. Conflict also existed between the exporters and some shipping lines over the frequency and availability of services.

The Onion Export Shipping Committee, set up as a result of the activities of the New Zealand Vegetable Growers' Federation Export Committee, is a potential coordinating mechanism. This committee is financed by a levy on exported onions, and has as one of its objectives the coordination of export shipments. Opinion varied as to whether or not this committee had achieved its objectives. One firm recognised that the committee had successfully negotiated a freight reduction with a shipping group and had financed a small amount of promotion. They had also discussed c.&.f. prices for onions to Japan, but no prices were fixed nor penalties introduced.

5.3 Case Channel 2

5.3.1 Introduction

Of the five firms interviewed as representative of this channel, one is a producer, one a local purchasing agent, and three are export merchants. The largest of these exporters handled around 30 percent of the local New Zealand export onion crop in 1979. Another exported less than 30 percent and the third less than 5 percent. Together, these three firms supplied one half of New Zealand's export crop in that year. Japan, Europe, the U.S.A. and the Pacific Islands were their major export destinations. All three firms also export a number of other crops, and all are active on the domestic market. One of these firms has been in operation only since the mid-1970's, did not export onions to Japan till 1980, and planned for a rapid increase in onion exports.

5.3.2 Procurement of supplies

All three exporting firms follow much the same procedure to obtain supplies from growers. None use formal written contracts, describing these as unattractive to buyer and seller alike due to future price and quality uncertainty. Instead, they have built up personal contacts with growers to gain some security over their supplies. One firm operates a branch office in Pukekohe to maintain communication with their suppliers. Verbal supply arrangements are not finalised until a definite export order is arranged. Another maintains a large field staff in Pukekohe to obtain supplies and also obtains supplies via agents in other districts. These firms would typically contact growers first during October-November, when loose verbal supply arrangements are made. These would be finalised when the exporter had organised his buyer and made shipping arrangements, giving the grower perhaps 2-3 weeks final notice to assemble supplies. One of the grower exporters (Section 5.2) describes these growers as

speculative producers, with no guarantee of a buyer and little power to influence grower prices.

To varying extents, the staff of each exporting firm maintains communication with their potential suppliers during the production season, to advise on husbandry matters so as to influence crop yield and quality.

5.3.3 Purchase arrangements and pricing

One exporter makes purchases from growers at a fixed price. Purchases are made only when orders have been taken, and prices paid to growers may vary from shipment to shipment. Prices paid were said to be similar among all exporters, so that aspects other than price were important in attracting suppliers. Both the other firms act either as commission agents, or take title to the crop themselves. In the former case, each operates an 'export pool' from which averaged payments are made to the supplying growers once all marketing costs, including the export agent's commission, have been met. Typically, growers receive an initial payment on delivery of the crop, plus a later bonus should a surplus of funds exist in the pool. Alternatively, the export firm may buy the crop at a firm price ex-grader. Either way, the grower has the choice - only if he uses the exporter as a commission agent does the grower directly receive the export tax incentive.

The interviewed producer remarked that due to the entry of new exporters, competition for supplies is more active at present than in the past, and as a result this has increased prices paid to growers. This is particularly noticeable in years of short supply, with exporters using the export tax incentives to offer premiums to growers.

The local purchasing agent purchases onions from growers at a fixed price, set in relation to the local market price at the time of purchase. He would follow the exporter's instructions as to the time and place of delivery (e.g. the wharf) at which time the shipment would be sold to the exporter at a price negotiated to cover the agent's costs and margin. Such agents also have their regular suppliers so do not use formal contracts.

5.3.4 Sales arrangements and pricing

One export merchant makes sales at a negotiated c.i.f. or c.&.f. price, based on the domestic price at time of purchase, a grower premium for export quality, marketing costs and desired profit margin. Such prices are also influenced by the other quoted selling prices of (New Zealand) exporters, and this firm remarked that other New Zealand exporters frequently quote lower prices. As the result of an initial overseas trip, commission agents were selected in Asia and Fiji. These are still used, and their performance is considered very satisfactory. Their main functions are as order-takers, to arrange delivery to the buyers, documentation and attention to claims. Agents are instructed to obtain the price set by the exporter, and have agreed to purchase New Zealand supplies of onions only from this firm. Japanese sales are made direct to three large importing companies.

The other two export merchants operate a similar selling system. Sales are negotiated at a firm price with Japanese importers, while agents are employed in Asia and the Pacific Islands to seek orders from the many smaller importers and retailers who seek New Zealand onions.

5.3.5 Grading and packaging

Each exporter may specify bulb size requirements to its suppliers, either growers or local agents, since desired size grades can vary among export markets.

Packaging is similar to that described in Section 5.2. One of the exporting firms operates a large grading plant in the production district, to which producers selling through this firm may consign their crop in bins.

5.3.6 Transportation

Auckland is the principal port for export. One exporter, who is located out of the Auckland region, has a contract with a local transport firm for haulage to this port.

Similar remarks to those of the exporters in Section 5.2 were made with respect to the availability of shipping. One considers the chartering of ships too risky unless very tight control is maintained over the product flow to the wharf. Even then, weather could delay crops or prevent the loading of the ship. For this reason, it has never chartered vessels. Nor has this firm cooperated with other exporters, preferring to book its own shipping requirements. Both other firms chartered vessels and indicated the risks involved, for example, of considerable financial loss should the booking be cancelled.

5.3.7 Financing and risk

All export firms follow similar arrangements. Payment for Japanese sales is obtained via a letter of credit, although this procedure is not followed for frequent, small sales typical of Pacific Island buyers.

In the latter case, some bad debts are suffered by the exporters.

Exporters who buy at a firm price from growers reduce their own risk by negotiating a firm sales price with their buyers. Growers who employ exporters as commission agents take on a degree of price risk, although exporters still negotiate firm sale prices. Growers' financing requirements are also eased by advance payments from the exporters. Assistance from the exporters in the form of seasonal financing also takes place. All freight is pre-paid by the exporter.

5.3.8 Branding and promotion

One exporter uses a single brand for all its export commodities, and restricts the use of this brand to export (i.e. not local market) sales. The firm does not engage in any promotional activities, but is aware of the value of associating quality and personal service with the brand. To this end, quality is closely controlled and speedy attention is given to claims and other problems that might arise. As a result, this firm finds that its brand is sought after by buyers.

One of the other exporters makes use of attractive promotional cards for all its export crops, including onions. These were distributed to the agents or buyers, and contained information on the firm, the product, its production and uses. Exporters either used their own brand of bags supplied to growers, or the brand or name of the individual growers whose product they are handling on a commission basis.

5.3.9 Market information

In each case, daily telex communication with their agents and buyers is the major source of market information for each of the three export firms. This would include current prices, information on competitor

exporters' (New Zealand and foreign) quotes, and the supply situation. Information flows from markets beyond the importer or agent (i.e. further along the distribution channel) appear weak in comparison, and agents are relied upon to relay information on quality problems.

Personal visits are made by each firm to their agents annually, perhaps more frequently to Asian and Pacific Island agents. All placed value on the resulting personal relationships.

Exporters transmit information regarding required quantities, size grades and timing of deliveries to their grower supplies, and at least one exporter provided an annual report to its growers on the results of the season's operations.

5.3.10 Coordination, competition and conflict

A degree of horizontal coordination is achieved at the producer level through the operation of a grading and packaging plant by one of the export merchants. This allows the assembly of shipments from the amalgamation of supplies from relatively small producers.

Vertical coordination between producers and exporters is looser than that in the first case channel (Section 5.2) since the production and exporting functions are not integrated in the one firm. Instead, informal unwritten contracts are relied upon to coordinate available supplies with the exporters' requirements and the local agents also act as coordinators in this respect. This limits the growers' competitive position vis-a-vis the exporter, especially towards the end of the production season when the grower may be forced to quit his crop irrespective of price, unless he chooses to store the crop for domestic sale. The activities of exporters and those of their agents appear well-coordinated due to the frequency of information transfer.

Competition amongst exporters for supplies was said to be more intense than in the past, due in part to the entry of new exporters, such as one of the three case-study exporters. Growers had noticed a subsequent firming of prices as a result, and a similarity of prices among export buyers.

Competition, rather than cooperation, among exporters is also the rule when seeking export orders. This is the major source of conflict within the channel, and also between both the channels studied in Section 5. This contentious issue is invariably raised by non-traditional exporters. Some suggest that price-cutting exporters do so to maintain their market share at the expense of the new-entrant firms, and that any losses sustained can be borne by the other activities and product lines of such firms. Traditional exporters refute this charge.

The importing agents and buyers would appear to act in collusion to some degree, since exporters soon learn of competing quotes from New Zealand suppliers via their own foreign agents. Difficulties in cooperating in the planning of shipping requirements were also sources of conflict. One exporter, however, suggested these difficulties were now largely overcome. Differences of opinion also existed as to the achievements of the Onion Export Shipping Committee.

6. POTATOES

6.1 Background

6.1.1 New Zealand production

Production has increasingly become concentrated in the North Island, due to proximity to the major domestic market as well as to adequate export ports. Emphasis in the Pukekohe region is on early production for the domestic market, while the main crops of Rangitikei, Manawatu and Hawkes Bay are the major source of exports.

Table 9: New Zealand Potato Production and Exports

Year	Total Area[a] (ha)	Total Production[a] ('000 tonnes)	Total Exports[b] ('000 tonnes)	Export as % Production	North Island Production as % Total
1970	9928	253.3	9.5	4	53
1974	9063	206.2	11.1	5	62
1975	9335	225.5	8.2	4	64
1976	10047	248.3	14.6	6	65
1977	10677	270.5	24.1	9	65
1978	9737	237.3	11.4	5	68
1979	7954	203.3	12.2	6	68

a. Years ended 31 January.
b. Years ended 30 June.

Source: Annual Reports, New Zealand Potato Board, Department of Statistics.

In contrast to the onion industry, where production for export markets is common practice, only 5-10 percent of the potato crop is destined for overseas markets. Most production is aimed at the local market, with only seasonal surpluses being exported (see Table 9).

6.1.2 Destination and value of New Zealand exports

Export markets for New Zealand potatoes are restricted to the Asian and Pacific regions, apart from occasional shipments to meet seasonal shortfalls in the U.K. Fiji is the major single market, and quantities exported there have increased steadily over the 1970's. New Caledonia is the only other market importing New Zealand potatoes in any quantity on a regular basis.

Table 10: Destination and Value of Potato Exports

Years ended 30 June	1970	1974	1975	1976	1977	1978	1979	1980[a)]
Fiji (%)	50	59	75	43	36	72	72	65
New Caledonia (%)	14	24	14	11	9	13	14	9
United Kingdom (%)	-	-	-	38	44	-	-	-
TOTAL (tonnes)	9523	11098	8198	14554	24131	11419	12230	13006
Value (f.o.b., $'000)	491	1273	1090	2110	3275	1423	1765	2447
Value (f.o.b., $/tonne)	52	115	133	145	136	125	144	188
Deflated Value (f.o.b., $/tonne)[b)]	52	89	93	91	73	59	62	66

a. Provisional
b. Deflated by All Farming Costs Price Index (1971=1000)

Source: Department of Statistics

In recent years, potato exports have earned between $1-3.3 million dollars (f.o.b.), although average prices per tonne have shown considerable year-to-year variation (see Table 10).

New Zealand exporters compete primarily with supplies from Australia in these markets; this source is closer to some export markets, and produces a better-keeping potato due to its drier climate. Surplus potatoes may also be supplied from the Netherlands, the world's major potato exporting nation, as well as from other sources.

6.1.3 The New Zealand Potato Board

The New Zealand Potato Board was re-established under the Potato Industry Act 1977. Its main functions are to promote the orderly development of the industry and to ensure that an adequate supply of potatoes is available for domestic consumption. Normally, it is not involved in either domestic or export marketing, but can further sales of potatoes in New Zealand or elsewhere by, for example, advertising or experimental shipments, and can foster, arrange or undertake the export of potatoes from New Zealand. Export consignments of over 100 tonnes to markets other than the Pacific Islands must be approved by the Potato Board, in light of the domestic supply situation, before an export permit is granted. The Board may make 'export assistance' payments to growers for exports to non-traditional markets, especially in years of heavy supplies and low export prices. Such payments have typically varied between $4 and $8 per tonne, but were last paid out in 1974. The Board's powers also include the maintenance of statistics and dissemination of relevent information to growers, and the importation of potatoes should the domestic crop be insufficient for domestic needs.

6.2 The Case Channel

6.2.1 Structure of the channel

Interviews were conducted with three export merchants, one local agent, one grower and representatives of the New Zealand Potato Board. The three onion producer-exporting firms of Section 5.2.2 also exported potatoes, two involving direct sales of their own supplies, while the third purchases export supplies from other growers.

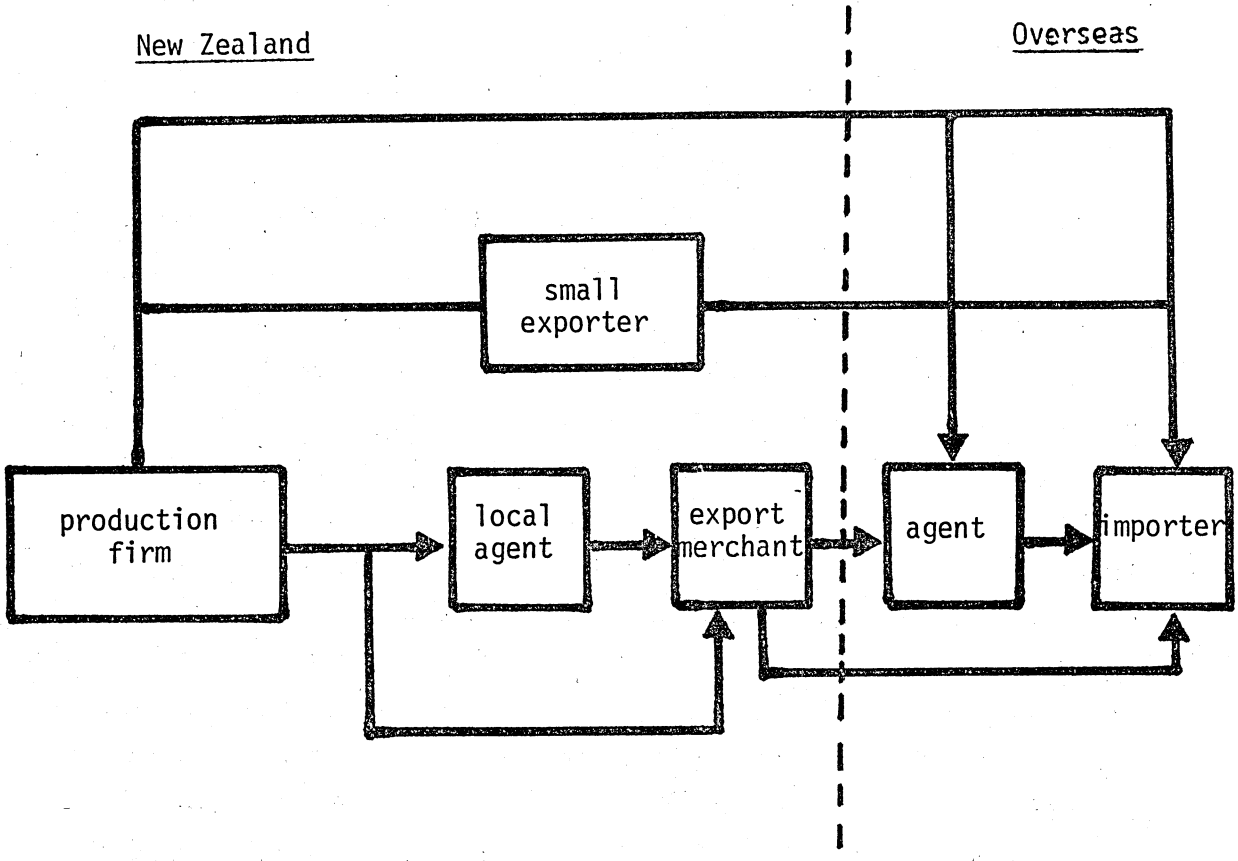

Figure 9: Major Channel of Distribution: Potatoes

Most of these interviews involved firms whose export activities with respect to onions have already been described. On the whole, these procedures were rather similar to those followed for the export marketing of potatoes, so discussion here can be brief.

The only case channel to be discussed involves growers and export merchants, where the latter may employ the services of local agents.

The three export merchants together accounted for 60-75 percent of total New Zealand exports. For each, Fiji is the major market. The local agent is typical of an agricultural merchandising company dealing in the domestic and export sales of a range of agricultural commodities. The export season is from the end of January till October, during which period firms may make consignments on a fortnightly-monthly basis.

6.2.2 Procurement of supplies

The export merchants purchase supplies from growers as and when required, in relation to their buyers' orders and shipping arrangements. Each firm has their traditional suppliers and personal contacts. Formal contracts are uncommon, due to the inherent risks that would be carried by either party due to price and quality variation.

Where a local agent is employed, he purchases supplies from growers and again, traditional ties between agents and growers are relied upon, rather than written contracts.

6.2.3 Purchase arrangements and pricing

Purchases from growers are made at a firm price, ex farm gate, and may vary from one shipment to another. If the exporter is employing a local agent, then quantities, timing, destination and size requirements (if any) would be stipulated. The agent's purchases are also made at a firm price from the grower. The agent arranges the transport of containers to the farm, labelling of bags according to export destination, official phytosanitary certification and transport to the export port. The exporter, in turn, purchases the consignment, freight-paid at the port, at a price

negotiated with the agent.

Prices paid to growers are set in relation to the current local market price plus a margin to cover the grower's additional costs in producing and grading-out a crop of export quality. Current Australian prices also influence the price paid to local growers, since over-supply in that country increases competition and lowers prices in export markets. Prices paid vary considerably between years, and also during any given year.

6.2.4 Sales arrangements and pricing

The export merchants sell at firm prices negotiated through their commission agents who take orders from wholesalers and retailers, or wholesale buyers. For example, the firm may use a single agent in Fiji, and will invoice the retail buyers directly after receiving their orders via the agent. Some firms indicated that much competition between New Zealand exporters is experienced in export markets in the form of price cutting to secure orders. Other interviewees suggested that such exporters include operators from other business professions taking advantage of the export taxation incentives.[1/] Although exporters may place pressure on agents, e.g. via exclusive rights, to obtain the exporters' nominated price this is not always possible when such price-cutting takes place.

1/ Depressed export prices during late 1979/early 1980 led some to place the blame for this on non-traditional exporters. The Potato Board and export merchants held meetings to resolve the issue, and considered the possibility of export licensing. Since then, consultations among the various parties have been more frequent, and some believe the problem to now be less serious than earlier.

6.2.5 Financing and risk

Growers, who may also receive seasonal financing from the export merchants, generally receive payment for their crop within one month of dispatch. Local agents take title to the product between the farm and delivery to the export port, and may enter a risk-sharing arrangement with the exporter for losses incurred beyond that stage. Exporters' sales to the Pacific Islands generally involve provision of 3-8 weeks credit, with some bad debts. Sales may be made on a sight draft, or if credit terms are violated the exporter may sell on a cash-against-documents basis. Freight is pre-paid by the exporter.

6.2.6 Grading, packaging and quality control

During the season, the exporter may monitor growers' crops and give advice on production problems. The exporters generally require the grower to store his produce for two weeks after harvest and prior to grading. During this time the potatoes dry, and any quality imperfections become obvious. The grower then grades and bags the crop according to the exporters' specifications, generally using 20-22kg sacks. These are weighed and labelled by the grower, and loaded into containers or strapped on to pallets. Seed potatoes are packed into bins, and this method is being adopted for table potatoes also, especially early crops, or when requested by a buyer who re-packs the crop. Towards the end of the season, growers may apply a sprout-inhibitor to the crop prior to bagging.

Early season export crops may be graded by hand, bagged and loaded into containers in the field. At that time, the crop could be too immature to pass over a mechanical grader without risk of damage. Previously, this procedure was followed for the bulk of the export crop, and quality control was as a result poorer than that achieved today.

Minimum size and quality regulations (for example, with respect to diseases, rots, internal damage) for certain markets are specified by government, who

issue the required phytosanitary certificates. Government also stipulate production regions within New Zealand from which potatoes cannot be exported to certain markets because of the presence of soil-borne potato cyst nematodes. Only a small area is involved, however.

6.2.7 Transportation

Earlier, rail was the predominant mode of transport from farm to wharf. This method was said to be slower than road transport, less reliable in terms of coordination with shipping timetables, and to involve more handling. All these factors affected quality and for these reasons, the large consignments to the U.K. in the mid-1970's used road transport. Since then, this has been the predominant method.

Auckland is the principal potato export port, with only small quantities being shipped from Napier and Mt. Maunganui. Given the concentration of the export crop in the Rangitikei production region, exporters and agents are paying increasing attention to further shipments via Napier, to reduce internal transport costs, although problems of container size and availability have to be overcome.

Exporters require small, regular shipments and appeared reasonably happy with the existing shipping services, although frequency of sailings had declined somewhat. Insufficient space can still be a problem from time to time, with export consignments sometimes being sold on the local market due to a shortage of shipping space. Exporters book their expected shipping requirements well in advance, but actual requirements will vary from these since buyers may place orders only for the following fortnight. In other words, shipping space is booked in advance of buyers' orders being received. The lack of refrigerated ships was criticised by one exporter, and the poor service from the Port of Lyttelton was said to be a major factor in the decline of Canterbury as an export potato region.

Since 1980, the service from this port has improved and potato exports through Lyttelton have increased, reversing the previous trend.

6.2.8 Market information

Overseas visits by exporters to their agents and day-to-day telex/telephone communication between exporters and their overseas and local agents are the principal sources of short-term market information.

The New Zealand Potato Board has not played a very active role in disseminating relevant market information through the marketing channels. At present, Fijian wholesale prices of potatoes are reported to the Board by the Department of Trade and Industry once every 2-3 weeks, although these do not relate to any particular country of origin (e.g. specifically New Zealand potatoes). This information would not appear to supplement information already obtained by the individual exporters. Information on the market supply situation, or crop quality, is not provided by the Department of Trade and Industry. The Board also receives occasional supply requests from the Department of Trade and Industry, for example, overseas buyers seeking c.i.f. price quotations. Such information appears not to be actively sought after by the Board, but when received is passed on to exporters via the New Zealand Agricultural Merchants' Federation.

The Board provides a monthly newsletter to potato growers that reports on the domestic supply situation and areas planted, but does not usually give information from export markets.

6.2.9 Coordination, competition and conflict

At least among the firms interviewed, there was only limited evidence of cooperation among firms involved in export marketing of potatoes. This was especially true in regard to arranging shipping requirements

reaching agreement on minimum export price quotations. Some informal meetings of exporters had been held.

Coordinating mechanisms are also largely absent. Coordination of buyers' requirements with supplies is based on loose verbal arrangements rather than anything more formal, and are often finalised at short notice. As a result, consignments are not always coordinated with shipping services due to the short period of time available to assemble supplies once buyers' orders are received.

Active price competition among New Zealand exporters for overseas orders has been observed. Some firms say this is intensified by businessmen from other professions who seek the benefits of taxation incentives. Other firms say that the traditional exporters usually quote the lowest prices to buyers in an attempt to regain that part of their trade that has been taken away by new-entrant exporters. Needless to say, this is strongly denied by the traditional exporters. A degree of collusion amongst the exporters' buyers or agents was suspected, since the export firms were quick to learn of other exporters' offer-prices from their own agents, and therefore to come under pressure to reduce their own price quotations.

These aspects, plus the competition for shipping services, give rise to conflicts within the channel. Another apparent conflict is between growers and exporters or local agents in regard to farm-gate prices. Competition amongst the traditional merchants in this respect was said to have not been particularly active in the past, with a few major firms being dominant. This concentration of buyer power in a few firms, when compared with the lack of such concentration amongst potato growers, would suggest the possibility of prices paid to growers being below competitive levels.[2/]

2/ Some efforts have been made to improve prices for growers - e.g. negotiations among the Potato Board, the New Zealand Potato Growers' Federation and the exporters were held for the first time in 1979, and were said to have been successful in achieving a moderate increase in prices paid.

New entrant exporters have offered prices above those of the traditional exporters and have gained a large share of the business.

SECTION C

7. COMMENTARY AND INTERPRETATION

7.1 Introduction

In Section B, information relating to the activities carried out within the export marketing channels for the selected products was presented. This information was taken directly from interviews with the case study firms, so reflects the attitudes and opinions of the firms.

The authors' interpretation and commentary on this situation is the subject of Section C. Whereas Section B was organised on a product basis, discussion now attempts to draw together the findings across each product group, according to the various marketing activities. The intention is to identify limitations that exist, and to present suggestions for further consideration by the industry.

7.2 Procurement of Supplies and Pricing

To allow the exporter to coordinate his purchasing programme with transport schedules and the demands of his buyers (it is assumed here that he has information on the latter), the following information should be available:

- the quantity of the product likely to be available to the exporter
- the quality characteristics of those supplies
- the timing of their availability to the exporter
- the location of those supplies, and
- the likely cost of those supplies to the exporter.

In addition, the exporter's marketing programme in future years can be better planned if forecast information on the above topics is also

available to the exporter.

Linkages may be formed between exporters and growers that satisfy the above requirements to varying degrees. These include the following:

(i) Formal integration within a single firm, of the production and exporting functions. This is possibly the most satisfactory way of ensuring coordination of available supplies with market demands, and also simplifies the task of forecasting the firm's future supply situation since concern is with only its own supplies.

(ii) Formal agreements between growers and exporters, such as written contracts, that may specify any or all of the required production characteristics such as quantity, quality, location, production techniques, timing of production and price. Joint programmes between exporters and growers may also be based on such agreements.

(iii) Informal agreements, such as a grower's verbal commitment to meet an exporter's supply requirements are obviously a looser arrangement than are formalised agreements.

(iv) Encouragement of grower loyalty through the provision, by the exporter, of production inputs. This also is a 'loose' arrangement, whose success depends upon the degree to which growers feel obliged to show their loyalty, and the penalties that may be incurred by disloyal growers.

(v) 'Hand-to-mouth' purchases, on a day-to-day basis, by the exporter. This procurement method may be the least satisfactory in matching supplies with export market demands; it shifts considerable risk onto the grower and reduces the potential performance of the exporter since new buyers may not be sought or existing buyers may not be satisfied.

Examples of all these procedures are found in the case studies. Those growers who exported on their own account have integrated both production and exporting functions, for example some of the larger onion and orchid producers. This type of organisation appears to be the norm, however, only in the export of live plants. Firm agreements are uncommon, although some nurserymen-exporters make use of contractual arrangements with selected growers to produce particular varieties and sizes. The only other example found involved the agreements made by boysenberry producers with their cooperative - the latter's supplies are secure to the extent that members are required to supply the whole of their crop for a specified number of years. The use of informal agreements, and the encouragement of grower loyalty, are the most common approaches to the procurement of supplies. These include the agreements reached between the supplying cooperative and its panel of boysenberry exporters; the panels of approved strawberry growers supplying export merchants where loyalty is encouraged by the provision of plants and finance; and the personal contacts, encouraged by provision of finance, between export merchants and potato and onion growers. 'Hand-to-mouth' purchases are also made, especially involving potatoes where the exporter may give short notice of his willingness to buy, but also with the procurement of onions and orchids.

No matter what the vertical linkage between exporter and grower, marketing efficiency is likely to depend upon the nature of the horizontal linkages amongst growers or exporters. Formation of grower cooperatives allows the supplies of numerous small growers to be assembled in one location and may reduce costs of grading and packaging. Examples are described in relation to boysenberries and strawberries. Cooperation amongst exporters might allow a better matching of supplies with each exporter's requirements, while sharing of production-related information may improve the quality of supply forecasts, elements of which are observed in the activities of some onion, boysenberry and live plant exporters. The operation of orchid and onion packing facilities by one exporter, to assemble supplies from several smaller growers, should

also be mentioned.

The absence of firm contractual agreements among growers and exporters of all products studied, with the possible exception of live plants, is not surprising due to the relatively undifferentiated nature of these products and the instability of their prices. Should an exporter make a forward purchase of a product whose price is known to be unstable, he faces the risk of a competitive disadvantage vis-a-vis those exporters who purchased later at a lower price. This appears to be the main reason why exporters are not attracted to forward contracts. The benefits due to obtaining a possible competitive advantage by buying forward, and increased supply security, appear insufficient to counteract the above risk.

It follows that the benefits of forward contracting will be seen as worthwhile only by exporters of products where some differentiation is possible (processed products or live plants, for example), by export firms that are sufficiently robust to withstand the inherent financial risks and short-run disadvantages, or by firms already strongly established in the export market. Otherwise, exporters may take a forward position only when profit expectations are relatively high.

Generally, exporters purchase from growers at a price fixed close to the time of sale. Exporting on a commission basis is less common. While the prices of some products, e.g. orchids and strawberries, are said to be set early in the season, the exporter retains the ability to adjust these prices as the season progresses. Again, the relatively undifferentiated nature of these products would encourage exporters to finalise prices as late as possible to minimise price competition amongst themselves on their export markets.

In conclusion, the benefits that forward contracting and pricing can bestow on exporter and grower alike are not likely to be achieved until

competition between New Zealand exporters is reduced, e.g. by cooperation or reduction in the number of sellers. Attention should also be paid to the bargaining process in price formation. Only boysenberry growers, by virtue of their cooperative, appear to be in a strong position to influence prices paid by exporters - on the other hand, the bargaining power of potato, onion and orchid growers appears negligible. The trend towards integration of production and exporting is likely to continue, this being a favourable development as far as supply procurement is concerned.

7.3 Export Sales Methods and Pricing

Export firms may face a wide choice of sales methods, and four of the major alternatives facing horticultural exporters are:

- selling through domestic middlemen
- selling through foreign middlemen
- direct selling
- establishment of an overseas marketing subsidiary.

Each has its place in horticultural exporting, as suggested by the following discussion. Various combinations also exist, such as domestic middlemen dealing with their foreign counterparts.

(i) Domestic middlemen

These may be either agents employed on a commission basis, or merchants who take title to the product. This method is commonly chosen by producers whose export turnover and order sizes are small, whose export markets are widely scattered, who may be relatively inexperienced in exporting, or who may be entering a new and unfamiliar market. The method is inexpensive in that the firm need contribute little in the way of finance and personal commitment. Domestic middlemen are often specialist firms with wide connections

in the trade. However, the producer using this sales method has little control over the marketing of his products, especially if he sells to an export merchant.

(ii) Foreign middlemen

Again, these may be commission agents, or merchants who take title to the product such as import houses or wholesale firms. These (usually specialist) firms may possess a deep understanding of the foreign market and provide, through their numerous regular buyers, a wide market coverage. The producer or exporter who deals with such firms need still provide only limited finance and personal commitment, but gains some contact with the foreign market, ideally backed up by contact with some of the agent's buyers as well. Domestic middlemen, having assembled the supplies of numerous small producers, often deal with foreign middlemen, or domestic producers with larger volumes of supplies may deal direct with the foreign firm.

The use of foreign middlemen has some disadvantages. The selected firm may also deal with other exporters of competing products, and may not exhibit an aggressive commitment to the product of any one exporter. Consequently, the exporter may have to compete with other principals for a share of the middleman's time. The middleman's objectives may clash with those of the exporter, - e.g. the former may be satisfied with achieving a low turnover of high-margin products, rather than attempting to achieve a high level of sales. The middleman may see himself as more a part of the importer's organisation rather than the exporter's, and therefore view the exporter as a firm to whom orders are sold. The middleman may not be prepared to invest the considerable effort needed to build up sales of an exporter's products if that exporter does not exhibit a firm commitment to this agent. The use of foreign middlemen may also result in haphazard, rather than planned, coverage of the market.

Many of these disadvantages can be overcome, however. Exporters may indicate their commitment by entering into contractual arrangements with their agents or merchants, or give exclusive rights to the middleman to sell in a defined market. This also gives the producer or exporter some control over the performance of his middleman. For an exclusive right to sell to be worthwhile, the agent or merchant might require a turnover larger than that offered by any single exporter. Then, exporters and producers may form syndicates to pool supplies. If their export volume is sufficiently high, it may be possible to employ an exclusive sales promoter. Other problems may be reduced by careful selection of foreign middlemen, frequent contact and personal visits, and by the exporter making the middleman aware of his marketing objectives which may well be defined with the help of the middleman's market knowledge.

(iii) Direct selling

This method has some obvious attractions. It gives the exporter control over his marketing programme in the foreign country, brings him into direct contact with his customers and provides rapid information flows. However, it can involve considerable financial and personal commitment and a high level of marketing expertise. For these reasons it is generally not suitable for any but the larger, diversified companies.

(iv) Establishment of a marketing subsidiary

This method may be considered if orders and turnover are sufficiently large. It provides a base in the foreign market, and an obvious point of contact for customers. Foreign nationals with local language and marketing skills may be employed, satisfactory control over the marketing programme can be achieved, and as the subsidiary accumulates experience market planning decision-making can be decentralised from the

home base. The establishment of overseas offices by national marketing boards is a good example of this method.

The two sales methods used by most producers involve either domestic or foreign middlemen, or both. Onion, potato, strawberry and orchid producers sell through domestic middlemen, who in turn deal with foreign agents or importers. Some larger producers of these products bypass the domestic middlemen and sell to foreign firms. Onions are exported through commission agents, foreign merchants and import houses. Contracts are used in some instances, some agreement is reached with the importer to limit the number of competing suppliers, and firm prices are negotiated between buyer and seller. Potatoes are generally exported at firm prices negotiated through foreign commission agents, while orchids are sold to foreign merchants at a negotiated price. Fresh exports of strawberries are made from the domestic middlemen to the foreign merchant or commission agent, at either a negotiated price or by private treaty with a suggested minimum price. Some shipments, however, are exported on consignment. Exclusive rights are given to selected foreign agents.

The export of processed boysenberries also involves domestic export companies and commission agents or importers in the foreign market. Exclusive rights are given to agents in certain market regions, renewable at 12 monthly intervals. Contracts are used with some importers. Some domestic exporters cooperate on matters of price, market sharing, and choice of agents. In limiting the number of, and agreeing to use the same foreign agents, these exporters illustrate a similar method to that suggested earlier, of exporter syndicates employing exclusive foreign agents.

Live plants are exported by the producing firm to foreign agents or merchants, or direct to wholesale nurseries at negotiated prices. House plants are sold to foreign merchants, usually wholesalers or retailers. This is the only example of direct sale to the retailer, and no examples involving marketing subsidiaries were found among the case studies.

In view of the above discussion, the prevalence of small-volume producers and exporters in New Zealand, and the wide geographic spread of markets, the above choice of sales methods appears sensible. Despite the heavy reliance on foreign middlemen, efforts have been made to overcome some of their disadvantages by the use of contracts and exclusive rights, and frequent visits. Scope exists for exporters to work together to be able to offer substantial sales volumes to exclusive sales promoters as a first step, which in time may lead to the establishment of overseas subsidiaries with the considerable benefits that they could bestow on the domestic exporting industry. As export volumes increase and the industry becomes more fully committed to exporting, it would be expected that the use of middlemen would become relatively less important with a trend towards the third and fourth methods. This will be required should the exporter wish to exert more control over market variables such as the way in which the product is priced, displayed and sold at the retail level. This may be important, since in many cases the horticultural exporter is selling a finished consumer good.

7.4 Transportation

With any products exported, transportation to overseas markets is a vital activity. For horticultural products, transportation must coordinate effectively with the physical production of the product, compensating for the fragile and perishable nature of most product forms. In most cases this includes the need to coordinate well with the most effective time for harvesting the products.

The main requirement for the export of the products concerned is the availability of adequate space at the period required. Since most product forms cannot be stored for any period of time unless costly refrigerated facilities are used, space and timeliness are critical.

Although what is considered adequate varies with the products concerned, most channels find the availability of space a problem, both for transport within New Zealand and outside the country. Since the quantity of product available is difficult to forecast accurately, as is the extent of overseas demand, the matching of available transport space with available supply is a particular problem, regardless of the distribution channel concerned.

For products exported by sea availability is not considered a major problem except for potato shipments to the Pacific Islands (largely Fiji). The primary problems mentioned concerned matching supplies from individual exporters to the space available. The common practice of booking space one to three months ahead and then adjusting the booking close to dispatch is considered to give problems. Some individual firms cancel space at such a late date that other exporters requiring space are unable to adapt quickly enough.

A similar situation exists with the products exported by air but the problem is considered to be greater because even shorter time periods are involved due to the greater perishability of the products. Additionally, problems arise through competition for space between freight and passengers, the latter having priority due to their greater profitability.

These problems appear to have little to do with the exporting channel used. They are more a reflection of the problems of coordinating freight space availability with supplies of products that are perishable.

No clear solution to the problem is obvious. Some improvement is possible through greater coordination between individual exporters, a practice that is carried out on a limited basis by some firms exporting onions and potatoes. Further moves in this direction could easily be achieved if the larger exporters were to maintain closer contact, something which most exporters appear rather loathe to do however.

More effort spent on predicting supplies and market requirements might be a further means of improving the situation to a degree. However, it is likely that this problem must be accepted as a feature of the products involved and New Zealand's isolated location.

The second main problem mentioned by exporters is the high cost involved. Regardless of the size of the exporter or the channel of distribution, instances were given for air freighting where shipments were not large enough to achieve the specific commodity rate available for shipments over a certain size. Again, cooperation between exporters, possibly through the facilities offered by freight forwarders, would seem to be the most appropriate means of overcoming this problem. Situations will no doubt always exist, however, where the exporter must accept this problem as a fact of life.

Many problems exist with transportation, and most must be accepted as a function of exporting. There does, however, appear to be scope for a greater degree of cooperation between exporters to overcome some of these problems. Others, such as poor handling and service by transport operators are best handled through negotiation by the industry bodies which already exist for most of the products studied.

When industry export volumes are sufficiently great, consideration should be given to the chartering of ships or aircraft. This approach is used by some onion exporters, although others emphasised the risks involved in this activity. For this approach to be successful, cooperation among exporters will be required to generate adequate volumes, and will also allow the spreading of risks. Such cooperation need not be limited to

exports of the same products. Different products may be carried in the same vessel suggesting the value of cooperation between product groups, for example cut flowers, live plants and berry fruit.

7.5 Market Development

A marketing orientation in a firm involves the basic view that the objective of the firm is to produce and profitably sell products which meet consumer requirements. The firm must be attuned to the customers' needs and wants, and with a knowledge and appreciation of these the various elements of what are called the 'marketing mix' are used to influence sales.

In broad simplified terms a marketing orientation considers that the firm first identifies the customers' requirements and then attempts to fulfil these as effectively as it can. By comparison a production orientation involves an attempt to dispose of the product the seller has available. Essentially the difference is one of perspective - the marketing orientation begins with the consumer, the production orientation with the product.

The elements of the marketing mix are factors which can be adjusted to influence purchases, and the appropriate ones vary with the product, its characteristics, the market involved and the firm itself. The main variables which make up the marketing mix are commonly known as the 'four P's' of marketing:

- Place
- Promotion
- Price
- Product.

Each of these is in reality a collection of instruments which a firm may make decisions on and use to influence its market. For example, the firm may determine the type of promotion to use, the media, and the timing of such promotion, depending on its marketing objectives.

In considering the effectiveness of the marketing procedures used by the firms studied in this report, the extent to which these firms use the main marketing variables in their activities will be reviewed, and the implications discussed.

The reader should appreciate that only selected elements of the marketing mix are considered, and the discussion should be seen as an overview rather than a detailed analysis of the individual firms. Some of the elements of the mix have already been discussed in previous parts of this section and will therefore not be touched on here. In particular 'Place', which considered aspects of physical distribution, was considered under Section 7.4 (transportation); and 'Price' in Section 7.3. In this present Section 'Promotion' and 'Product' are discussed.

It is important to realise, however, that successful marketing involves the coordination of all of the elements of the marketing mix, not just the use of each in isolation.

(i) Promotion

Promotion may take a variety of forms ranging from advertising to personal selling. The most effective method, or combination of methods is influenced by the product and its market, and a decision on whether to promote and the method to use is a difficult decision to make.

Three levels of competition for a product can be identified:

(a) competition between the general product group and other groups - for example, fruits vs other types of foods;

(b) competition between, say, one type of fruit and another - for example, boysenberries vs strawberries;

(c) competition between the fruit of one firm or supplier and another - for example, boysenberries supplied by firm A and those by firm B.

Promotion of a product under (a) and (b) aims to increase demand for the individual product group involved, for example boysenberries. Promotion under (c) however, is more of a head-to-head battle between suppliers, although it may also contain an element of promoting under (a) and (b).

The effectiveness of promotion is difficult to measure, particularly if in its less direct forms such as where public relation activities are involved. Moreover, the difficulty in isolating the effect of promotion versus the other elements of the marketing mix, such as price and quality, is great. Broad criteria for successful promotion can be summarised as follows: 1/

1. The product should be one that has a favourable demand trend. Many of the outstanding success stories of advertising are found in those situations in which the expansion of demand was already under way.
2. The product should have a large chance for successful differentiation from its potential substitutes. Successful differentiation usually depends on two things: (a) consumers should attach greater importance to hidden or indeterminate qualities of the product than to external qualities that can be readily seen and judged, and (b) rigid control should be maintained over the product to see that the stressed qualities are the same at any time or place.
3. There should be powerful emotional buying motives employed.

1/ Kohls, R.L. and Downey, D., Marketing of Agricultural Products

4. A substantial sum of money must be available if mass media efforts are undertaken. Small resources do not necessarily give limited results while increased resources produce greater results but limited resources poorly spent may give detrimental effects.
5. Promotional efforts must be coordinated with other types of selling activities and various marketing agencies in the market channel. It must also be coordinated with the supply flow making the product readily available.

The difficulty with promoting the horticultural products considered in this study involves issues such as which marketing channels are used, which level of the market is to be influenced (e.g. consumer or importer), whether promotion is for short term impact or longer term market development, and the cost involved and who is to foot the bill. Certainly there is considerable merit in stimulating demand for a product type (e.g. boysenberries or orchids), and from a competitive situation in stimulating demand for the product of a particular supplier. If the product is little known by the consumer in the export market both must be stimulated. For example, this appears to be the situation for boysenberries in many markets. If the product is well known the supplier need place less emphasis on stimulating the product group as a whole. In any form of promotion, however, it is essential that features that are important to the consumer or buyer are stressed.

Many of the products studied are well known in most markets. They are, in many instances, meeting shortfalls in local production or of foreign exporters closer to the market, or meeting seasonal gaps. For this reason, and the fact that New Zealand is usually only a minor supplier with relatively small financial resources,

promotion of the product group is likely to be of relatively minor value. Promotion of an individual supplier's product is of more importance since it builds up buyer loyalty and trust and at least ensures continued quantities are sold, while hopefully resulting in higher prices to that supplier.

Most exporters visited place primary emphasis on promoting their own product. In most instances this is, however, restricted to personal promotion through overseas visits and the presence of the firm's name, and possibly individual brand, on the carton used for shipment. Where the product passes rapidly to retail sale the container used for retail display features these points. The provision of display posters or colourful informative inserts which provide product usage information is also used in a few cases. In the case of promotion to different segments of the market the efforts of some boysenberry exporters are of note.

In most instances these activities appear adequate for the product concerned. In the case of less well known products such as boysenberries, particular live plant varieties, or different product forms there is a greater need for stronger promotional activity. For these purposes greater funds and the coordination of a number of exporters would be necessary since fragmented small-scale promotion is likely to be less effective in generating demand.

The development of stronger brands, possibly based around an industry-wide brand, may have merit in the light of findings by the Horticultural Research Unit of the New Zealand Export-Import Corporation which indicated that in North America and probably many other areas, New Zealand has little profile as a supplier of horticultural products.

An essential part of promoting a brand - either that of an individual firm or of New Zealand in general - is however, ensuring that close attention is paid to other marketing activities, particularly

quality control and grading, packaging and transport. Without these more damage than good is likely to result.

(ii) Product

Live plants, orchids and frozen boysenberries were the only product groups where any degree of activity was taking place in product research and development.

These product groups have some firms, usually the larger firms, who are attempting to develop product forms or varieties which will meet an identified market opportunity. In the case of plants, new varieties, colours, hybrids, etc. are being developed; with frozen boysenberries a variety of product forms, such as dessert toppings, and yoghurt bases are being developed.

This activity is, however, the exception rather than the rule. Clearly the opportunities for product development are considerably less for products such as onions and potatoes, but too many firms appear to be only interested in trading in basic 'raw materials'.

Even with the most standard products, however, scope exists for product development at a basic level, such as changes in variety, form of presentation, size of pack, etc.

As with market research, part of the problem would appear to lie with:

- the small size of many export operations
- the fact that many exporters are primarily growers who have set up their own export operation
- the high cost involved in some types of product development work.

Encouragement of larger exporting organisations either through private firms, cooperatives, or more loose cooperation might improve this situation, but part of the need would appear to rest with a greater marketing orientation by those involved in exporting rather than their present trading activity.

7.6 Market Information

A vital part of successful marketing is an understanding of the requirements of the markets being served or developed, the operation of these markets, the competition involved, and future demand conditions for the product in that market. An indication of the wide-ranging topics that may require consideration is given in the Appendix and in Figure 3 in Section A.

Information of this type must be available to the firm it if is to operate most effectively. Without such information the firm is following a product oriented approach, and will probably be relying heavily on others to sell the product - in particular the exporter will be carrying out limited marketing activity and probably losing ownership of the product at an early stage of the distribution channel.

The information required may be obtained by a variety of means ranging from published information available from outside the firm through to information developed for the firm itself either through formal research, or through more informal channels such as by overseas visits and contact with middlemen.

Two types of information can be identified:

(i) short-term market intelligence which concerns short-term supply and demand conditions and the effect on the market;

(ii) broad information on the market and the consumers, including trends, market preferences, sales methods, margins, etc.

Most of the case study firms rely on information developed through overseas visits to the markets and/or feedback from sales agents and buyers. The information is collected informally and primarily relates to short-term price information, and information on market supply conditions (type (i) above

This information, which serves as a basis for within-season exporting decisions is generally readily available since the main exporters are in regular telephone or telex contact with their overseas agents or buyers. Information on market potential, market growth, and market development is much more restricted, however.

This is in fact a major shortcoming of the main information-gathering activities of most exporters. Considerable reliance is placed on information gathered from overseas agents and merchants. Even when on overseas visits little emphasis is placed on information relating to the broader features of the market or the ultimate users of the products sold. A common view is that overseas middlemen have a clear understanding of these other issues and are capable of providing all the important information. In actual fact this is often far from true.

The main exception to this type of arrangement is for the main firms exporting live plants and one of the major firms exporting boysenberries. These firms appear to place a greater emphasis on identifying the markets' requirements and potential and relating these to their production or purchase activities. Part of the reason for this greater research and analysis activity, as distinct from the commodity trading approach used by most other firms lies in the fact that the firms involved carry out their own production. Rather than acting as middlemen for other producers, with the inbuilt escape clause of being able to pass price declines back to the producers, these firms stand to gain or lose financially from their marketing operations. Since they must make decisions on what to produce they find it much more important to engage in a greater degree of market research - both formal and informal. Their size also gives them the financial resources

to undertake the necessary research.

Because of their involvement in production and/or the cooperative nature of their organisation, and in some cases due to the nature of their product which allows a degree of product differentiation, these firms consider the market and its requirements and relate this to the product and their marketing programme.

In situations where the exporter produces little or none of the horticultural products it exports, less incentive exists to undertake the same degree of investigation since the financial implications of unsuccessful marketing will generally be passed back to the producer.

This separation of production and export, a common situation for many horticultural products, increases the degree of risk faced by the producer. The information gathering and analysis activity is passed back onto that producer who is in many cases ill-equipped to handle it. As a consequence the decision to plant new products is often made on the basis of little information or detailed knowledge. Likewise the expansion of the acreage of products already being exported is similarly based on little information. Medium term forecasting of prices and supplies in overseas markets would likely be of value.

Part of the problem observed in this activity would seem to relate to the fact that numerous individual producers make independent production decisions and then expect to find outlets, with the consequence that disposal at the best price available is the goal.

While the nature of many of the horticultural products studied limits the extent to which planned marketing and the input from market research are appropriate, a much greater degree of attention paid to market requirements before production encouragement takes place is essential. The most appropriate means of doing this will vary with the product concerned, but rationalisation through industry cooperation is a starting point. With this must go an interest in long-term market development rather than just a concentration on short-term commodity trading.

In this respect it is worth noting the fact that a high proportion of the exports shipped concentrate on the same markets, and enter the same channels through the same middlemen. It appears that decisions on market selection, the quantities to be shipped, and the middlemen to be used are made to a great extent on the basis of following the lead given by established exporters. Rather than selecting markets after close consideration of alternative opportunities new exporters 'follow-the-leader'. This situation can often result in detrimental effects on those firms already shipping to these markets, with buyers playing one seller off against another. Further,where the initial selection of the market by the established exporter was made on issues such as say, shipping space available at the time, or a personal contact developed, there is every likelihood that greater benefits would arise from the development of alternative markets.

In a similar manner, since many overseas markets have limited numbers of agents suitable to exporters, new exporters tend to follow the same beaten path, approaching those firms already being used by other New Zealand firms.

Greater information and more effort spent on market assessment might take pressure off a limited number of markets, while identifying attractive new opportunities.

Short term market intelligence needs to be available on a day-to-day basis, and the major exporters appear to be successful in this area. Broader information, such as on market characteristics, distribution and retailing structure, consumption levels, sales methods, the competitive situation and margins etc., may be beyond the resources of an individual firm. These may be more effectively developed and interpreted by an industry and/or public funded service, such as that currently being established through the efforts of the H.E.D.C. Such a service is likely to be less effective in collecting information to facilitate day-to-day trading activities.

7.7 Grading and Quality Control

Horticultural products of the same type, because of their fragility and perishability and the nature of their production, vary considerably both between producers and within the production of an individual producer. Important differences exist in size, colour, freshness and freedom from disease.

Overseas buyers have definite requirements for the products they purchase, based on the requirements of the final buyers. For products to be used or consumed fresh the exporter must ensure that the product meets these requirements when finally purchased, not just when delivered to a transport firm.

In most instances, as well as a defined quality, the buyer requires a product of specified size and/or appearance. These requirements are particularly critical when the product is seeking sale to the top end of the market, a common situation for New Zealand products which must carry the high costs associated with considerable distance from the major market areas.

The definition of quality for many horticultural products is a difficult task since on the one hand it includes factors such as colour and ripeness, while on the other, it includes physical factors such as size. Moreover, the view of quality may vary with the market area concerned and the use

to which the product is to be put.

As a consequence, the producer and the exporter must ensure that the generally accepted conditions which determine quality are met, as well as being aware wherever possible of any particular requirements of specific markets and users. Of particular importance to marketing is the product's evenness of physical appearance. Additionally, it must be realised that the presentation of the product, including the type of package, its size, and even the appearance of the pack all have an important bearing on the view of the product's quality.

The question of quality is therefore seen to involve the condition under which the product is grown, the presentation of the product (in its widest sense), and the requirements of the buyer. The sequence should ideally involve the identification of the market's requirements and then the control of the other factors to ensure the product meets these requirements, although in practice this ideal is rarely fully possible. It therefore involves consideration of market intelligence, packaging, and transportation as well as production issues such as care during growing, time of harvest and method of handling.

Of particular importance is the attempt to identify the market's requirements and then match the product to these, while being aware that what is acceptable to one country or level of the market may be unacceptable to another. If the product does not fully meet the market requirements, at best the result will be a lower price than otherwise; at worst it will mean an unsaleable product.

To fulfil the market requirements, attention to the following is necessary:

- production of a healthy, attractive product
- separation of the product into selections preferred by different markets and/or buyers
- packing and transport to the overseas buyer.

To ensure that products are standardised according to market requirements, separation into different grades, classes, or lines should occur.

Quality control methods and control of product uniformity varies considerably between the products studied in this report and also varies, but to a lesser extent, between exporters of the same products. All fresh horticultural products must meet basic quarantine standards administered by the Ministry of Agriculture. For most products these restrict the export of shipments which contain diseased or contaminated fruits or plants. Most markets require clearance documents from the Ministry before they will consider entry of the product into their country. The application of this does differ, however, between markets. Beyond this level of quality control it is the responsibility of the exporter to set his own standards of quality and appearance.

For live plants and flowers most exporters, who are generally the initial producers, undertake their own quality control activities which centre on only exporting high quality flowers and plants of excellent appearance. These firms produce their products to ensure their own export standards are met. This can mean that the products exported by different firms vary in quality, but the acceptability for export depends on the firm's own standards.

In the case of orchids, exporters differ in their approach. One firm has introduced formal grading standards, other firms use their own informal standards. For potatoes and onions, grading and sizing instructions are given by the exporters, according to the preferences of their individual buyers, while berryfruits are graded on the basis of fruit size, shape and colour. These standards are primarily the responsibility of the grower who also carries out the packing, although the exporter carries out inspection of deliveries before accepting them. Again, standards are informal and vary between exporters. In the case of the cooperative having control of the bulk of boysenberry exports, standards are set by the cooperative and monitored closely.

A feature of quality control and grading for all the products studied is therefore the informal standard set, with each exporter responsible for his own view of what is an acceptable product for export. All firms place particular stress on exporting a product which is capable of maintaining its quality through to the point of sale. To ensure this considerable emphasis is placed on supervision right back to the growing and harvesting stage.

Since the buyers' requirements and views of quality are paramount, and since buyers differ in this respect between countries and between segments of the market, the methods and standards set, while variable, are adequate. To continue successfully, close cooperation between those involved in all stages of exporting is essential. In addition, experience in exporting and a clear knowledge of the market appear to be of major importance in ensuring successful long-term exports, and in building the reputation of New Zealand as a supplier of high quality products. Considerable damage to all New Zealand exporters can occur by the export of poor quality products by a few exporters; cases such as this have occurred in the past, and must be avoided if New Zealand is to develop a high quality reputation. To allow the benefits of supplying a high quality product to be recognised, clear and attractive use of brand identification is also an important adjunct to exporting.

As highlighted by the section on market information (Section 7.6) some exporters seem to place excessive reliance on their agents for feed-back about their products' quality. Comments were given to the effect that any quality deficiencies would be relayed back to the exporter via the agent or merchant as complaints. Whilst this is true for major complaints information relating to other improvements in quality, grading and presentation may not reach the exporter.

7.8 Coordination, Competition and Conflict

Under this heading attention is widened from the components of an individual firm's marketing programme, to the manner in which such firms work within the marketing channel as a whole. Each aspect will be considered in turn although of course they are interrelated. For example coordination between firms that are in conflict may be difficult to achieve.

7.8.1 Coordination

As explained in Section A, marketing channels may comprise large numbers of firms at each of the many levels of activity that exist within the channel. All, however, are in some way concerned in the satisfaction of final customer requirements. If this goal is to be achieved, some means must exist for coordinating the activities of these participating firms.

Channel activities may be coordinated in both horizontal and vertical directions. The former refers to firms at the same level (e.g. producers, or export merchants), whereas the latter refers to linkages between firms at different levels. Both are important in export-oriented horticulture.

Such coordination of marketing activities provides benefits to the participants. Customer requirements, and any changes, are made known to firms further down the channel so that their activities can be accurately directed; economies can be achieved in production and distribution through handling larger volumes and better scheduling of activities; profits can be enhanced through improved product allocation among markets and market segments, and through time; costs of delay can be reduced through improved timeliness, and so on.

Traditionally, open-market prices and the profit incentive were believed to be important in guiding adjustments in production and distribution. In other words, individual firm activities are coordinated by forces of supply and demand in the marketplace, with prices being the signals to direct activities at different stages of the marketing channel. In many practical situations, this procedure results in poor coordination due to imperfect operations of markets. Prices may be influenced by the power base of firms in the market, information systems may be poorly developed or 'noisy' and price-distorting, or prices by themselves may not convey sufficient information to indicate precisely the product specifications desired. Then the open-market price system needs to be supplemented by other coordinating mechanisms.

These mechanisms include:

- horizontal integration
- vertical integration
- contracts
- joint programmes and agreements
- joint organisations.

Integration involves the formal merging within one firm of the activities formally carried out by a number of firms. Coordination of these activities may improve as a result since they are under the control of a single management rather than achieved through prices or by agreements with other firms. Producer cooperatives are one of the most common forms of horizontal integration in farming. Economies may be achieved through handling large volumes of produce (e.g. in grading, packaging and transportation), and members may benefit from their increased bargaining power with their buyers. Coordination of grower decisions is thus achieved. By virtue of their large volume of standardised and stable supplies, producer cooperatives are also attractive to firms at other levels of the channel who wish to seek improved vertical coordination.

Vertical integration is also becoming an important coordinating mechanism in agriculture, such as processing firms or marketing organisations with their own farm production units. Producer marketing boards sometimes provide extreme examples of both horizontal and vertical integration. Reasons for such integration include efficiencies due to more stable supplies, lower costs of raw materials, and improved scheduling. Greater market power is another important reason.

Contractual agreements are perhaps the most commonly-used means of coordinating activities among different firms. Many examples exist, including those between producers and exporters or processors, and between exporters, transport operators, and importers.

Some discussion on contracting has already been given in Sections 7.2 and 7.3. Contracts are particularly useful where significant scope exists to reduce price, volume or other uncertainties, and where the maintenance of quality standards is crucial. The relative bargaining power of the firms entering into the contract may determine the distribution of the benefits from the resulting improved coordination - contract terms often favour the more powerful firms. This suggests the value to growers of strong organisations or cooperatives when negotiating contract terms.

Joint programmes offer many ways in which firms may coordinate their activities. These include joint ventures, syndicates, 'pooling' and other more informal agreements. Joint programmes may be between firms at the same level, e.g. exporters reaching agreements on a common marketing strategy, or at different levels, such as between a growers' cooperative and an exporter. An emerging trend in the U.S.A. has involved joint ventures between producer cooperatives and agribusiness firms - the cooperative gains from access to new sources of finance, professional marketing skills, established markets and distribution networks and a spreading of risks, while the agribusiness firm gains from stable low-cost supplies and access to rural funds. Joint agreements between cooperatives may be advantageous in increasing their control over supplies, and in increasing grower power in negotiations

with agribusiness firms.

Such voluntary joint programmes are more likely to succeed if the firms involved can recognise a 'group' objective sufficiently important to outweigh conflicts that may arise due to differences among each firm's goals; if they are willing to compromise with respect to their own goals in the interests of the group; and where the partners in the group can offer complementary resources and skills. To be successful, the participants must also be able to communicate effectively with one another, through the establishment of an appropriate committee structure and information system.

A joint organisation may be considered as a formalisation of the 'joint programme' structure, and is formed by several firms for a common purpose with its own corporate identity, objectives and budget. Again, such firms will likely seek partners with non-conflicting goals and complementary resources.

Finally, no matter which of the above (or other) mechanisms are adopted, it is information that makes coordination possible. Integration, contracts, joint programmes and the like are the means of achieving more accurate and timely information and of increasing its speed of transfer among participants in the market channel.

The impression gained from the case studies is that coordination in New Zealand horticultural exporting, while weak in some areas, is strengthening as firms overcome suspicions and conflicts and appreciate the benefits that can be attained.

Onion producers operate joint programmes, involving cooperation in matters of harvesting, chartering vessels and pricing. These firms are vertically integrated (carry out both growing and exporting functions) and make use of contracts with some of their buyers. The onion packing plant operated by one export merchant plays a coordinating role, while scope exists for the

Onion Export Shipping Committee to encourage further joint activities among exporters.

Coordinating mechanisms are at an evolutionary stage in the orchid industry. So far, informal meetings of some exporters take place and could lead to more formal joint programmes, and packaging plants are used by an export merchant to coordinate supplies from among many suppliers. Vertically integrated grower-exporters are typical among the well-established firms.

Exporters of live plants exhibit integration of both production and exporting functions. Some of these firms show a willingness to cooperate on such matters as market development, perhaps encouraged through membership of their trade association.

Relatively small cooperatives have been formed by strawberry producers, providing horizontal coordination at this level of the marketing channel and, as with all products studied, the activities of exporters and their own buyers or agents are well coordinated.

Developments in the boysenberry industry could well foreshadow similar coordinating activities of the other product groups. Grower cooperatives achieve coordination of supplies, further strengthened by informal or formal linkages among these cooperatives. The largest cooperative operates a joint programme with exporters on market and research activities, and has a sufficiently powerful base to ensure that growers gain from such coordination of efforts. Joint promotion programmes with importers are also being planned.

This development in boysenberry exporting is an example of the advantages spelled out earlier that can be achieved by cooperation between cooperatives and agribusiness firms. Such firms already export other horticultural products and in some cases, have established their own production units.

Perhaps the more successfully coordinated ventures in the future will be joint programmes between such firms with their marketing skills, financial resources and diversified product mixes, and relatively large grower cooperatives who are prepared to drop their product orientation and instead view themselves as part of a vertical system that responds to changes in market requirements.

7.8.2 Competition

The gains achieved from competitive markets have long been recognised by economists. As far as horticultural markets are concerned these benefits would include, in contrast to what might be expected from less-competitive markets, higher prices to growers, lower prices to consumers, elimination of excessive profits, and active exploration of new technologies and markets. In the international trade situation, some of these markets are domestic (e.g. for raw materials, domestic transport services) while others are not (e.g. wholesale and retail markets). Thus gains due to improved competition within the New Zealand export horticulture sector would likely be shared between New Zealand and foreign countries. For example, competition amongst New Zealand exporters on overseas markets is likely to benefit foreign agents, rather than New Zealanders. Competition within New Zealand export-oriented horticulture should be managed to maximise the gains accruing to New Zealand. This is likely to involve a degree of competition between export firms within New Zealand, but coordination of their overseas activities.

Large numbers of small, independent traders are not the general rule in international horticultural marketing. Instead large national or multi-national firms, and closely controlled market channels, are to be found in the markets for many horticultural products. A trend has been observed towards a concentration of market power within the importing countries, and the emergence of coordinated marketing channels linking countries such as Israel and South Africa to the importing firms. To maximise its gains in such an

environment, New Zealand horticulture must achieve a position of some power to offset that of the firms with which it is likely to deal.

This situation has implications for the competitive behaviour of New Zealand export firms, but by and large we find that New Zealand export firms compete one with another on foreign markets as they do on domestic markets. This was the case with all products studied, although was not seen as a serious problem by live plant exporters. It is particularly important to note that some exporters learned of competing (New Zealand) price quotes from their own agents, rather than by communication amongst the New Zealand exporters, thus placing the latter firms in a weak competitive position.

On the domestic scene, competition amongst exporters is beneficial in several areas, such as research into and adoption of new ideas and techniques, packaging designs and plant breeding using endogenous material, and the level of prices paid to growers. These benefits may have been more pronounced in recent years with the influx of new export firms placing the older-established firms under greater competitive pressures.

Where competition is less active, such as in the provision of domestic transport services, inefficiencies are likely to arise, e.g. higher marketing costs and production disincentives.

A problem confronting policy makers is how to limit competition among New Zealand firms on foreign markets while retaining the benefits of domestic competition. Several approaches are possible.

(i) Evolutionary: One point of view is that those exporters who cannot withstand the competitive pressures will eventually disappear, leaving an export sector consisting of a few large firms. Coordination of the overseas activities of these firms may then be easier than between a large number of exporters. However, competitive pressures within New Zealand would be reduced.

(ii) Voluntary cooperation: Various types of coordinating committees may be set up, although previous experience suggests these are not entirely successful. Voluntary cooperation may also involve joint programmes between export firms.

(iii) Regulation: This could take the form of export licensing, in which a number of export firms would be granted licenses hence maintaining a degree of competition among exporters within New Zealand, or may involve a statutory marketing authority with monopoly powers over New Zealand supplies. In the former case, the authority issuing licenses must be capable of defining what constitutes desirable behaviour on the part of exporters, e.g. with respect to their actions on overseas markets and the extent of the coordination of such, and of monitoring and evaluating the exporters' actual performance. Exporters whose performance is judged to be less than desirable may have their licenses withdrawn so that inefficient exporters do not become permanently locked into the trade. The second method, statutory marketing boards, automatically removes competition among New Zealand firms on foreign markets, but also removes competition amongst such firms within New Zealand.

7.8.3 Conflict

Study of conflict within marketing channels is important since the existence of more than tolerable conflict amongst firms can lead to imperfect coordination of marketing activities and can impair economic performance. After identifying the causes of conflicts and recalling some examples, attention is given to ways of managing such conflict situations.

Marketing channels consist of several interdependent firms, engaged in fulfilling the common task of converting raw materials to finished consumer products. At the same time, they compete one with another for production

inputs, raw materials, markets etc. Such interactions may lead to conflict, and make fulfillmentof the common task more difficult to achieve.

It is useful to distinguish between competition and conflict. Competition tends to be indirect and impersonal, most noticeable among firms at the same horizontal level in the channel and generally regarded as 'healthy'. Conflict, in contrast, tends to be direct and personal, most noticeable among firms at different levels in the channel, and generally regarded as 'unhealthy'. For example, competition among exporters for supplies may be beneficial to system performance, while conflicts between growers and exporters over prices may not. Competition sometimes leads to conflicts that should be recognised, however. In particular, competition amongst New Zealand export firms for sales in overseas markets may not be beneficial to the New Zealand-owned component of the marketing channel.

The principal causes of conflict among firms include differences in firms' goals, differences in firms' power bases, and differences among firms in their interpretations of reality. An example of the first case is an exporter who wishes to maximise profits from export sales conflicting with a shipping operator whose returns on invested capital would not be maximised by providing the frequent, low volume service required by the exporter. In the second case, the dominant firm in the channel may come into conflict with other firms if it uses its power to threaten punishment on, rather than encourage cooperation from, other channel members. The third case includes examples that may result from different beliefs, imperfect information and misunderstandings.

Several conflict situations were identified in the case-study channels and were described earlier. They may be summarised as:

- among exporters when securing shipping space
- among exporters when selling on overseas markets
- among exporters when informal agreements are broken
- among users and suppliers of transport services, domestically and internationally, as regards the suitability and frequency of those services, and quality control
- among exporters as regards the quality of their supplies on overseas markets
- among growers and exporters as regards grower prices.

Various methods exist by which such conflicts can be reduced, or managed, so as to encourage a greater level of cooperation among firms. To enable firms to recognise that they are part of an interdependent system, efforts may be turned towards definition of channel (rather than firm specific) goals. These would comprise ends desired by all parties in the conflict that cannot be obtained by each party separately. Such deliberations, by appealing to the 'common good', divert attention to the task of competing with foreign marketing channels and provide the firms involved with an understanding of each other's situation. This could well be a first step in managing conflicts, providing the motivation to adopt other mechanisms. It could be carried out, for example, by industry or channel planning groups.

Mediation by an independent third party may allow facts and issues to be clarified, explore possible bases for agreement, keep the parties in contact, encourage parties to agree to specific proposals and supervise the implementation of agreements. In a sense, the H.E.D.C. has played such a role, and could consider whether it, or some other institution, may be required to intensify such involvement in the future. Committees of Enquiry, it should be noted, have been used to explore issues in horticultural marketing (including conflict situations) in the past in New Zealand, but without great success in instigating action.

Other methods aim to increase the number of interactions among the conflicting firms, in the belief that this will increase the likelihood of solutions being found. These include membership of trade associations such as the N.Z.N.A. and its associated groups, and involvement in planning groups, seminars and workshops. The various groups forming within New Zealand horticulture at the present time, as well as established organisations, should give consideration to the roles they might play in these respects. As a result, conflict management may be achieved through 'rules of conduct' approved by all members of the marketing channel, or informally through better understanding of the tasks confronting the marketing channel and the individual firms that comprise it.

APPENDIX

APPENDIX I

ISSUES TO BE CONSIDERED WHEN ASSESSING OVERSEAS MARKETS

1. THE MARKET

(a) Market size and potential market share

(b) Past and future growth trends

(c) Market structure
- Who are the main producers in the market?
- Which are their main markets etc.?
- What are the seasonal and cyclical variations in the market etc.?

(d) Economics
- What is the economic situation in the target markets?

(e) Legislation
- What legislation exists within the target markets and within New Zealand which will affect export?

(f) Social attitudes
- Are there any social attitudes which exist which might affect the ability of New Zealand exporters to compete e.g. attitudes towards horticultural protectionism?

(g) Technology
- What is the rate of technical change within the key markets?
- What is known about future technological changes and their likely affect on export success?

(h) Competitive climate
- What is the history of competitors in terms of market share, sales, profit performance etc.?

- What pricing practices do they adopt?
- How do competitive products compare with New Zealand products?

(i) Consumer preferences

- What is known about consumer preferences in key markets?
- What research has been done to verify this?

(j) Decision makers and their criteria

- What is known about the criteria used by decision makers in arriving at a purchasing decision in terms of consumer preferences, price, product form etc.?

(k) Distribution

- What channels are available
- What firms operate in these
- What services do they provide
- What margin levels are common
- What transport services are available
- What do they cost

(l) Demand

- What factors which have not already been examined affect the demand in key markets?

2. PRODUCT

(a) Physical characteristics of competitive products
(b) Alternatives to traditional products
(c) The matching of current products with buyer needs

3. PRICING

(a) What is the cost structure of products through the distribution chain when all costs including distribution costs are taken into account?
(b) What pricing practices exist in key markets? To what extent do Government policies have an affect on pricing practices?

4. PROMOTION

What promotional mix is being used by competitors in terms of:

personal selling
advertising
sales promotion etc.?