

Guidelines for exporters of selected fruits and vegetables to Sweden, Denmark, Norway and Finland



Export Market Development Division
Commonwealth Fund for Technical Co-operation
Commonwealth Secretariat

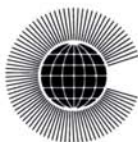


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Commonwealth Fund for Technical Co-operation

This is one of a series of publications providing practical
guidelines on exporting for the benefit of
Commonwealth producers



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Introduction

This is the fifth in a series of practical handbooks published by the Export Market Development Division of the Commonwealth Secretariat. It has been prepared in response to requests from exporters and exporting countries for detailed information about opportunities in the fresh produce markets in the Scandinavian, or more correctly Nordic, countries - Sweden, Denmark, Norway and Finland.

Although small in terms of population, the Nordic countries are wealthy and are importing increasing quantities of tropical and off-season fresh fruit and vegetables. On the other hand the markets are not too easy to enter. Quality standards are high and importing is dominated by the central buying organisations of large import/wholesale/retail groups and also Nordic purchasing organisations which all insist on strict specifications. This handbook aims to provide, in an 'easy to read' format, practical information on how to research and make contacts in the respective national markets and to develop or expand fresh produce exports to them. The handbook is directed at existing producers and exporters of fresh produce in Commonwealth developing countries, particularly potential new exporters, seeking to answer the questions: WHAT, HOW, WHERE and WHEN.

The handbook provides the exporter with basic information on each Nordic country market and indicates sources of more detailed information. It then sets out key information about the selected products and gives guidance on market opportunities. The tropical and off-season fruit and vegetables (generally termed 'exotic produce' throughout the handbook) selected are:

Fruit	Vegetables
Avocados	Asparagus
Carambola	Aubergine
Mangoes	Cherry Tomato
Pawpaw/Papaya	Beans
Passion Fruit	Mangetout
Peach/Nectarine	
Persimmon	
Pineapple	
Sweet Melon	

The choice of products was based on the following criteria:

- they are grown in a number of Commonwealth countries;
- they are suitable for supply by small and medium sized exporters (either directly or through a marketing board);
- there is an established market, even if small, and reasonable prospects for growth from overall increases in demand or to fill supply gaps; and
- there is scope for new entrants.

Introduction

The handbook falls into three parts. The **first section** provides an overview of the Nordic and individual country markets covering the nature of the market, the structure of the distributive trades that deal in fresh produce, means of servicing the markets and trends in produce sales.

The **second section** contains profiles of the selected products covering varieties, appearance and characteristics, harvest and post-harvest treatment, quality requirements and grading, packaging, sources of supply, prices, import tariffs and a brief summary of the market situation.

The **third section** presents, in appendices, additional information on tariffs, import regulations and procedures, relevant aspects of food legislation on transportation and packaging, addresses of organisations and commercial businesses relevant to exporters and an illustrative calculation of costs and returns from exporting fresh produce.

The Nordic Market

Nature of the Market

Historic and cultural ties have given rise to extensive and close relationships between the Nordic countries, Norway, Sweden, Finland, Denmark and Iceland. Co-operation takes place within the framework of the Nordic Council of Ministers with its Secretariat in Copenhagen, Denmark. Economic issues, trade, energy, consumer policy and legislative matters are among the matters covered. As a result the Nordic block has a common labour market, a passport union and reciprocal social security benefits.

There are many features common to all Nordic countries. Each has a relatively small but wealthy population mostly concentrated in or near the capital city and other major towns. Per capita GDP, much the same in each country, is higher only in Switzerland and Japan. Consumption of fresh fruit and vegetables is relatively high and growing in response to consumer preference for healthy eating. This particularly applies to fruit, per capita data for which are: Denmark 69 kg; Sweden 66 kg; Norway 57 kg and Finland 51 kg. An increasing proportion of fresh produce is imported. Access to the wide range of tropical and off-season fruit and vegetables that is presently available is relatively recent but, for most such exotic produce, only small quantities are consumed and prices are high, principally due to the high unit costs of transport and distribution associated with low volume trade. Produce has to travel greater distances compared with other West European nations and, in winter, exotic produce needs heated containers. However, there is a potential for steady growth in demand for exotics as marketing campaigns for specific products lift sales through 'threshold' levels and facilitate reductions in retail prices.

For the exotics exporter, markets in all of the Nordic countries are not easy to enter because the importation of fruit and vegetables is highly concentrated. The centralised buying organisations that dominate importing prefer to deal with major brand suppliers for established products or exotic specialists in Holland and Germany for low volume products. Quality requirements, specifications with regard to packaging and delivery schedules are demanding. Complex technical regulations and import procedures inhibit one-off or speculative shipments. Exporters, therefore, need to service the markets through a well developed marketing partnership with Nordic companies. However, being an established exporter can bring advantages in the form of large orders for regular deliveries at agreed prices.

Tropical and Off-Season Fruit and Vegetables

Within the trade in each Nordic country a distinction is made between 'first generation' and 'second generation' produce. First generation exotics have become main products available year-round in supermarkets at competitive prices. Second generation are lower volume products often with limited

The Nordic Market

availability and at comparatively high prices. Within this category some products are regarded as 'marginal', because current sales volumes are very small and consumer awareness low. Such products are usually available only at larger or specialised retail outlets. Typically, exotic products are classified as follows in Nordic countries:

First Generation	Second Generation	Marginal
Avocados	Papaya	Carambola
Peach/Nectarine	Mangoes	Lychees
Pineapples	Passion Fruit	Physalis
Kiwi	Persimmon	Kumquat
Sweet Melons	Asparagus	Sugar Peas
Aubergine		Bobby Beans
Cherry Tomatoes		

Nordic Purchasing Organisations

Two purchasing organisations have been established to make bulk purchases on behalf of their members, who are large distributive trade companies in individual Nordic countries. The major items of fresh produce sourced through these joint purchasing organisations are the high volume fruits such as citrus, apples, bananas, pears and grapes, and mainstream vegetables - tomatoes and peppers - from southern Europe during the main import season. Economies of scale and joint freighting arrangements can be cost effective, thereby securing top quality supplies for members at modest prices.

Nordisk Andelsforbund (NAF) is a long established co-operative society with its head office in Copenhagen, which purchases a wide range of products on behalf of its members, who are the central organisations of the following consumer co-operatives:

Company	Country
Kooperativa Forbundet (KF)	Sweden
Foellessforeningen tor Danmark Brugsforeninger (FDB)	Denmark
Inex Partners Oy	Finland
Norges Ko-operative Landsforening (NKL)	Norway
Samband Isl. Samuinnutelaga (SIS)	Iceland
Coop Italia	Italy
Co-op Wholesale Society Ltd (CWS)	UK
Konsum Osterreich	Austria

Through its member companies NAF serves 14,000 consumer co-operative stores which have 16 million members. It has a network of buying offices in Spain, Italy, Germany, the USA, Central and South America, and South Asia. NAF imports a high proportion of fruit sold in member co-op retail outlets.

The Nordic Market

Viking Frukt AB was established in 1990 as a central purchasing organistaion for the import of fruit on behalf of its four member shareholder companies, each of which is a major distribution group in its own country.

Company	Country	Estimated share of national fruit and vegetable import (%)
ICA Foretagen AB	Sweden	33
Kesko Oy	Finland	40
Bama-Gruppen A/S	Norway	30
Brdr-Lembeke A/S	Denmark	25

The head office in Gothenburg, Sweden, transacts business with individual suppliers, who are mainly leading world brands. Viking has experienced initial teething troubles, having largely failed to realise the expected cost savings for its members, who continue to directly import much fresh produce.

Produce Retailing

Since the 1960s significant changes have occurred, both in the structure of distributive trades and the type of service provided, throughout the Nordic region. Traditional greengrocers have largely been replaced by fresh produce sections of supermarkets and hypermarkets at which self-service has replaced counter service. Through a process of both voluntary amalgamation and of acquisition to reap economies of scale in centralised purchasing and distribution, the trade has become vertically integrated and highly concentrated in the hands of a small number of import/wholesale/retail groups. In some cases the centralised purchasing company, both for the Nordic region and nationally, is a separate organisation providing its clients with a service in the form of procurement or procurement plus distribution.

The main types of retail outlet are:

Supermarkets, hypermarkets and discount stores: These usually offer a wide range of goods such as personal care products and household goods in addition to food. They are almost all self-service and fresh fruit and vegetables are offered either pre-packed or for customers' own selection from bulk displays. Hypermarkets tend to have a wider range of consumer items and varieties within each category of product. Discount stores are similarly organised but the emphasis is on low prices for a narrower range of products and varieties. In all Nordic countries co-operatives are strong in this sector.

Independent greengrocers and delicatessens: These generally continue to provide a counter service, often offering especially high quality produce. Many are linked either through ownership or by trading arrangements with an importer/wholesaler group.

The Nordic Market

Department stores: These mostly have food departments offering either, or both, self-service of pre-packed fruit and vegetables, and counter service.

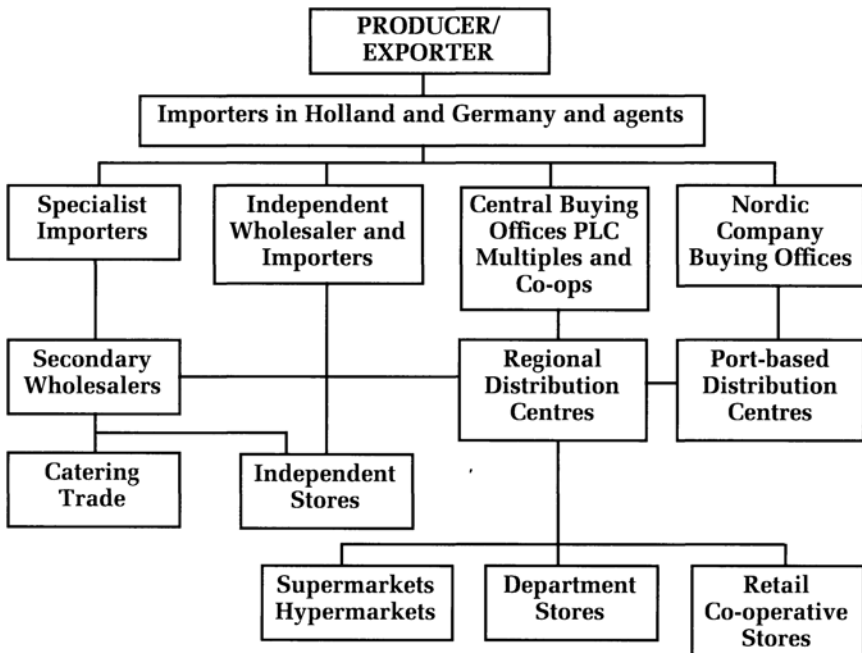
Market stalls: Although now less common, these are found in major cities, often at weekly or periodic markets. Most sell mainly temperate produce but some offer exotics obtained from independent importers and wholesalers.

Marketing Channels

In all Nordic countries both importing and wholesaling have become highly centralised, while the wholesale trade has taken on additional functions of packaging and distribution as well as storage. Typically the organisations involved in importing are:

- Nordic purchasing organisations on behalf of wholesale/retail groups;
- central buying organisations of wholesale/retail groups;
- independent importer/wholesalers;
- specialist importers in Holland and Germany; and
- agents.

The typical structure of distribution is shown in the following diagram.



Tropical and Off-Season Fruit and Vegetables: an Overview

Sweden, with a population of 8.6 million, has a high consumption of fresh fruit which, mostly from imports, increased by 30% per person between 1960 and 1990. On the other hand Swedish consumers are conservative in their eating habits. Vegetables are regarded as a minor supplement to a main meat or fish dish. Coupled to the Swedish housewife's attachment to the deep freeze and round the year use of frozen produce, this means that few tropical or off-season vegetables have become widely accepted.

Apart from temperate fruits, citrus and banana, the consumption of which is well established, a number of tropical and sub-tropical fruits have gained consumer approval. These include pineapple, melon, avocado, kiwi and mango. The last three items of produce all secured consumer acceptance as a result of strong marketing campaigns in the 1970's and early 1980's. These significantly lifted demand above the 'threshold' and permitted regular supply at lower cost to a wide range of retail outlets. Despite dietary conservatism, many Swedes who have visited the tropics on holiday have developed an interest in tropical produce and to these must be added the not insignificant numbers of immigrants from Asia, Africa and South and Central America who form the 'ethnic market'. Government policies in support of Third World development and trade (duty-free import of horticultural produce except for temperate products during the Swedish growing season) also encourage imports.

Nevertheless, Sweden is a difficult market to supply. Swedish consumers demand high quality - normally only 'Extra' or Class I grades will be accepted. The best opportunities lie with additional exotic fruits, such as papaya, passion fruit and persimmon, becoming generally accepted and consumers developing a taste for year-round fresh vegetables that would open the door to sales of off-season produce such as green beans, mangetout and baby corn.

Produce Retailing

The Nordic market patterns of retailing described above apply to Sweden. Statistics on retail outlets are presented, not by type of outlet, but by the importer/wholesaler group of which an outlet is a part. The number of food and convenience goods stores, including food departments in hypermarkets, supermarkets and department stores and their market stores, was as follows in 1990.

The Swedish Market

Store	Number	Retail Market Share (%)	Estimated share of fruit and vegetable imports (%)
ICA Foretagen AB	3,391	34	33
Ko-operativa Forbundet (Co-operative Movement)	1,722	21	25
Axel Johnson/D Group	1,702	20	25
Other stores	1,388	23	N/A
Market stalls	N/A	2	N/A

A common feature of Swedish retailing is the low status of the employees in charge of fruit and vegetable sections in hypermarkets, supermarkets and department stores. Frequently the staff are trainee or junior managers who have limited knowledge of, and little interest in, fruit and vegetable retailing. Importers believe that this situation has a detrimental effect on marketing and is holding back the growth in sales.

Market Channels

Between 75% and 80% of fruit and vegetable imports are channelled through the central buying organisations of three groups - ICA, Ko-operativa Forbundet and Saba Trading (for the Axel Johnson/D Group). For mainstream produce, the first two make use of linked Nordic buying organisations, Viking and more especially NAF respectively. However, importing is not rigidly compartmentalised and produce is imported through importers in Holland and Germany, through agents and specialist importers in Sweden.

The structure of the three import/wholesale/retail groups may be summarised as follows:

ICA: A co-operative importing and wholesaling organisation owned by independent retailers. ICA retailers are member companies of ICA Forbundet (Association) which owns the parent company, ICA Hardlarnas, which in turn owns ICA Partihandel. The latter engages in importing fruit and vegetables through ICA Fukt Och Gronsaker AB and Viking Fukt AB. Imported products are supplied to 20 regional distribution centres and from these centres to its 3,300 retail stores.

Ko-operativa Forbundet: The Swedish consumer co-operative movement whose wholesaling and distribution activities are carried out by KF Handel AB. KF Fukt Och Gront undertakes central buying of fruit and vegetables,

The Swedish Market

including imports, for the movement. KF makes extensive use of the Nordic purchasing organisation NAF, of which it is a member. Imported fresh fruit and vegetables are distributed centrally from Malmo to 17 regional distribution centres which in turn supply about 2,200 co-operative food stores (Konsum), departmental stores (Domus) and hypermarkets (OBS!).

Axel Johnson/D Group: (previously known as the Saba Trading Group, now its buying organisation). A large PLC group which undertakes importing and wholesaling for about 1,800 retailers. These include voluntary chain stores, B & W Hypermarkets and the Tempo-Ahlens department store group. DAGAB, an amalgamation of previously independent wholesalers, undertakes wholesaling and distribution activities while imports are handled by a number of specialised subsidiary companies. For fruit and vegetables, these are Saba Trading Group AB, Stockholm Fruktimport AB and AB Baran-Kompaniet.

Importers/Wholesalers

Retailers

ICA Group

ICA Handlarnas AB

ICA shops

ICA Partihandel AB
stores

ICA Frukt
and Gronsuker

Nara Deg convenience

Kooperative Forbundet

KF Co-op

KF Handel

Konsum shops

KF Fruk & Gront

Domus stores

OBS! hypermarkets

Axel Johnson/D Group

SABA Trading

DAGAB

Ahlens Department stores

B & W Hypermarkets

Jour Liv stores

D Group stores

Independent retailers

Independent importers buy mostly from importers/agents in Holland and Germany. Eleven are members of the SFG (Swedish Association of Fruit and Vegetable Distributors), the largest being AB KA Lundblad and Co and Sydfruktimporters AB with a 5% and 2% share of imports respectively.

The Danish Market

Tropical and Off-Season Fruit and Vegetables: an Overview

The Danish domestic market is of limited direct interest to exporters of exotic product due to the small population (5.1 million), the strong Danish farming industry and convenient access to the major fruit importing ports of Hamburg and Rotterdam and airports at Schipol (Amsterdam) and Frankfurt.

Imports of fresh fruit and vegetables declined from 526,000 tons in 1987 to 385,000 tons in 1990. The economic recession and substantial increases in sales of local fruit during the recent good summers have been responsible. Against this general tendency, there has been a significant increase in demand for a number of first generation exotics such as melons and avocados. In the Copenhagen urban area there is growing consumer interest in second generation exotics developed by shops stocking a wide range at modest prices designed to attract impulse purchasers. High overheads and wastage result in marginal profits from minor exotics. Nevertheless, there are good prospects for some second generation exotics to cross the threshold and become first generation products.

Produce Retailing

In comparison with other Nordic countries the distributive trades in Denmark are less concentrated and centralised. Although, as in Sweden, only three retail groups dominate the retail sector, at 60% their share of the food retail business is rather lower.

FDB Co-operative	35%
Dansk Supermarked	15%
Dagrofa	10%

The remaining 40% of the market is distributed between ten retail chains and independents, with no one group having more than a 5% market share. The business situation among these retail chains is highly volatile and further concentration, through partnerships and acquisitions, is expected over the next few years.

Market Channels

The marketing channels available to exporters of fresh produce to Denmark are influenced by Denmark's status as an EC member and its location on the north west coast of Europe. These combine to establish its role as the gateway to the Nordic group of countries. Copenhagen international airport functions as the Nordic air traffic centre. Direct motorway links from Jutland to the south provide convenient access to Hamburg and Rotterdam. Northwards there are excellent road, rail and sea freight links through

The Danish Market

Helsingborg into Sweden or Norway. This has helped to keep alive a wide variety of importers and wholesalers distributed throughout the country, which not only service the smaller retail chains and independent retailers but are also used by the central buying organisation of the main co-operative and supermarket chains. For example, the importer/wholesalers Th. Olesen and Brdr. Lembeke A/S, a member of the Nordic Viking group, provide a competitive purchase and delivery service on contract to individual supermarket chains.

The structure and activities of the leading retail groups are as follows:

FDB Co-operative: The largest co-operative retailing group in Denmark with approximately 2,300 retail outlets. 50% - 60% of the outlets are owned by FDB; the rest operate on a franchise basis. A wide range of fresh produce, normally 160 - 170 items, carried in each store account for 8%-10% of turnover. Store types range from the supermarket chain Fakta, to the quality-oriented Irma chain of stores. The FDB central purchasing organisation is responsible for procurement and issues weekly price guidance to the retail outlets, quoting prices ex central warehouse and suggested retail prices including an average mark up of 33%-40%.

Dansk Supermarked: A large distribution group jointly owned by two shipping companies, A P Møller and F Salling. Dansk Supermarked undertakes importing, wholesaling and distribution for its retailing activities. These include the Fotrex chain of supermarkets, the Bilka chain of hypermarkets and the Netto chain of grocery stores.

The Norwegian Market

Tropical and Off-Season Fruit and Vegetables: an Overview

In population terms, Norway is the smallest Nordic country with 4.2 million people, 90% of whom live in the southern half, and 1.9 million in the Oslo area. Moreover, the concept of exotic product is new to the Norwegian consumer and hence the recently developed market is small. Without any significant immigrant population, there has been no 'ethnic market' to act as a catalyst in promoting tropical produce. Total sales of this category account for less than 5% of total fruit and vegetable imports. The volume of second generation exotic imports is probably less than 200 boxes a week.

Nevertheless, in Norway, as in other Nordic countries, there is a trend towards healthy eating and increased consumption of fruit and vegetables. Traditionally conservative consumer tastes and purchasing habits have been slowly changed to accept a wider range of specialised produce. This has been helped by the lack of import restrictions which gives exporters of exotic produce relatively free access. Most exotic produce is excluded from the extensive tariff restrictions applied to limited imports of mainstream fruits and vegetables during the summer season to protect domestic production. Customs duties do not apply to most developing countries, which are granted duty-free status under the GSP scheme. Special import fees levied on most fresh produce that competes with domestic production to bring prices up to domestic levels do not apply to most exotics.

A strong foundation of consumer interest in exotics now exists and the Norwegian market offers reasonable medium-term potential. Quality expectations are high. As traded volumes increase the present high price levels are likely to decline and price competitiveness will become more important.

Produce Retailing

Of all the Nordic countries Norway has the least concentrated food retailing sector. The leading companies, with their market shares, are:

NKL	23%
Reitan/Matmesteren	12%
Hagen-Gruppen	11%
Norgeskjedan	9%
FM-Norge	8%
Kjøpmannskjedene	7%
Others (independent companies)	30%

NKL, the largest retailing group, is a co-operative society with 1,300 retail outlets. Its central buying organisation sources 70% of its fresh produce

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imports through NAF, of which it is a member. It distributes produce to its retail outlets through regional distribution centres.

Market Channels

The importation of fresh fruit and vegetables is in the hands of the following import/wholesale companies, with their estimated market shares indicated.

Bama Gruppen A/S	30%
AL Gartnerhallen	30%
NBKL	19%
Bottolfsen A/S	NA
Interfrukt	NA

Bama Group is Norway's largest private fruit and vegetable marketing and distribution organisation. It imports through Bama Trading A/S and is a member of Viking Fruckt, from which it obtains most of its first generation exotics. It has a nationwide network of eight branch offices and 30 warehouses. Of similar size is AL Gartnerhallen, a producers' co-operative which is one of the largest importers and wholesalers with a national distribution network of some secondary wholesalers, supermarkets and grocery stores. About 50% of turnover is imported through Gartnerhallen Import A/S. NKL is a co-operative union with a nationwide retail chain and uses the Nordic co-operative, NAF, for imports of fruit and vegetables. Interfrukt is a central buying organisation for 40 independent wholesalers, while Bottolfsen A/S is an exotics specialist principally serving the catering trade.

The limited number of direct sea and air freight services into Norway, coupled with the relatively small volumes of fresh fruit and vegetables imports from any one source, restrict importers' opportunities to minimise transport costs through direct supply.

Product costs CIF Holland or Germany are often only 45% of final CIF cost into Norwegian supermarkets. As a result, of increasing importance is the sourcing of large orders through NAF or Viking for direct import into the Nordic block and redistribution to Norway. Trading volume in second generation exotics is not big enough to support direct import programmes. Holland dominates as the main source of supply for these products, with Dutch standards of uniformity in colour and appearance being well established with the trade and consumers.

Tropical and Off-Season Fruit and Vegetables: an Overview

Finland, although having a small population of 5 million, 0.8 million of whom are concentrated in the Helsinki region, is a wealthy country heavily dependent on imports for its fruit and vegetables, making it a fairly attractive market for exporters. The demand for fresh fruit, except apples, is almost entirely met through imports. Steady growth in consumption has increased annual imports from 220,000 tons in the early 1980's to 255,00 tons by 1990. For the popular fruits like apples, bananas and oranges, market saturation has now occurred, consumption patterns are relatively static and are likely to respond only to changes in price.

Total domestic production levels for vegetables averaged 180,000 tons during the 1980's, supplemented with 55,000 tons of imports (excluding potatoes), mainly during the off-season. There is no tradition of serving a choice of vegetables with a meal and, as in Sweden, consumers rely heavily on canned and frozen produce. Although the range of imported fresh vegetables has been increasing, imports of cabbage, tomatoes, cucumbers and carrots account for 70% of the total.

The exotics sector accounts for only about 6% of the import trade, for sale primarily in the Helsinki region. For its size, therefore, Finland is a relatively small market for tropical fruit and especially for off-season vegetables. There is strong resistance on the part of wholesalers to purchase exotic fruit on the turn of ripeness. Hard unripe fruit is the trade preference but, except for bananas, ripening facilities are not available. The eating quality of fruit is not, therefore, high.

A few years ago there was optimism over future growth prospects for exotic produce, but as a result of the serious recession in Finland since mid-1990 this has yet to materialise. Reduced consumer spending has resulted in greater emphasis on quality standards and discount pricing. Second generation exotics at luxury prices are slow sellers in this environment; import quantities for some lines are generally very small. However, as the country pulls out of recession there are prospects for growth, initially for tropical fruits, but as interest in fresh vegetables increases, there should be opportunities for asparagus, beans and mangetout.

Produce Retailing

Distributive trades in Finland are the most concentrated among Nordic countries, with over 90% of the retail trade, including fresh produce, controlled by three major trading groups. Each has vertically integrated purchasing, wholesaling and retailing with a unified national distribution system. The leading companies and their market shares are:

The Finnish Market

K Group (K stores)	40%
T Group (T stores)	24%
Inex (S Group/Eka Group)	28%
Independent chains and stores	8%

Market Channels

Most importing of fresh produce is carried out by the central buying organisations of the three groups. A few independent importers/wholesalers service the independent chains and stores. Most mainstream fruit is sourced ex-Rotterdam before transfer by sea from either Lubeck in Germany, or Stockholm, to Helsinki. The majority of the secondary exotics are purchased from major specialist importers in Holland or Germany. In order to reduce freight costs they are usually transferred from Stockholm.

The structure and activities of the three main groups are as follows:

K Group: A central purchase and wholesale company, Kesko, with affiliated K retailers. The 3,300 K retailers comprise a wide range of family enterprise varying from village shop through neighbourhood store to supermarket.

T Group: A private wholesaling company, Tuko, similar to Kesto, with affiliated T Stores. The 2,200 T retailers include 60 cash and carry stores, department stores and 400 speciality stores.

Inex Group: A central purchasing organisation recently formed for Finland's two consumer co-operative societies, SOK (S Group) and Eka (Tradeka). Inex is a member of the Nordic NAF Group which operates 1,600 outlets, including 60 department stores, 300 supermarkets and 600 neighbourhood shops. Eka operates 50 department stores and hypermarkets and 800 grocery and speciality stores.

Commercial Arrangements

There are a number of different types of buying agreement in use, the most frequent being:

- firm purchase
- consignment free
- programmed sales

Firm purchase is the most common system used in the Nordic countries. A fixed price, either FOB (free on board) or CIF (carriage, insurance, freight), is agreed between the buyer and the producer/supplier prior to despatch. The central buying organisations usually purchase on an FOB basis, so that they can arrange their own transport from producer through to final destination. Consignments by sea freight are often quoted FOB-quayside (at the European port of entry) where the exporter uses a reefer container for a number of different customers. CIF arrangements are common with air freighted produce.

With **consignment free** sales, the exporter bears the whole risk and will only receive the net proceeds after the consignment has been sold and commission and costs deducted. Commission charges average 8%, but when costs of storage, transport and handling are included the percentage deductions typically range from 25% to 35%. This is the normal method of purchase used by independent importer/wholesalers, especially for small volume orders, although this category of consignment constitutes a small proportion of the total volume of exotic imports. Commission selling is a high risk option for the exporter since the importer can make deductions for poor quality and wastage from overripe or rotten produce. The exporter is strongly advised to obtain references as to the reliability and credit worthiness of the intended trading partner before entering into commission sales.

Programmed sales account for a significant proportion of supermarket purchases from established suppliers in which deliveries of pre-arranged quantities to meet the needs of special promotions and peak sales periods are made. While purchase quantities are confirmed in advance, prices are not fixed until the time of sale and then follow prevailing market prices. This is a cross between firm purchase and commission arrangement. Both parties have clearly understood obligations and arrangements on delivery schedules, volumes and price determination, which may include guaranteed minimum price levels. However, the actual price is not agreed in advance.

Packaging

The most common packaging box sizes are 20 cm x 30 cm, 30 cm x 40 cm, 30 cm x 60 cm, and 40 cm x 60 cm, designed to fit the standard Euro-pallet size of 80 cm x 120 cm. The Euro-pallet system is widely used by the distribution and transport industries that serve retail trades throughout Europe. Most air freighted produce is carried on airline pallets but transferred on arrival onto Euro-pallets for distribution. Sea freighted produce in refrigerated containers generally uses the reefer pallet, 100 cm x 120 cm, with which the most convenient box size is 40 cm x 50 cm. Boxes that conform to both the Euro-pallet and the reefer pallet are compatible with road transport systems. Exporters are strongly advised to check with importers the size and type of packaging preferred and to take account of these requirements in planning purchases of packaging materials. Packaging used should be strong, preferably white, attractive and clean.

The extent of pre-packaging used varies considerably in Nordic countries. Importers will normally inform exporters of requirements but exporters should always check if in doubt. In Norway and Sweden, sale by count is the most common; consumers prefer and expect pyramids of loose produce ready for self-selection. Pre-packing is therefore limited to about 10% of fruit and vegetables, being confined to items such as soft fruit, baby corn and small gift packs. In Denmark pre-packaging has declined from about 80% of fresh produce to 50%-60% because of consumer resistance to over-packaging. Consumers are offered a choice of loose or pre-packed in most lines and pre-packing is expected to stabilize at current levels. In Finland the extent of pre-packing is low, at 10%, but is expected to increase because most sales are by weight and there is a growing concern over poor hygiene associated with loose displays. Staffing costs are also higher with loose display sales systems. All Nordic importers prefer pre-packing to be done at source to avoid the high domestic labour costs.

Where EC, UN/ECE or OECD regulations have been issued for a product there are requirements about labelling on packages. Some are mandatory as part of minimum requirements, others are advisory. Labelling requirements are almost the same for all products, variations being minor.

Mandatory labelling on each box must be clearly legible and should state:

- identification, name, address (or code) of packer or dispatcher,
- nature of produce (eg avocados) and variety name,
- country of origin,
- commercial specifications, class, net weight in kg and/or count, size code (where sized).

Servicing the Nordic Market

Additional **voluntary information** included as common commercial practice:

- identity or logo of grower,
- tare weight in kg with maximum deviation in %,
- 'this side up' and 'fragile' symbols,
- storage temperature instructions,
- date of packing, often in code.

Getting Established in Nordic Markets

A potential exporter of mainstream exotic produce will seek to establish a direct trading relationship with a suitable partner in a Nordic country or one of the Nordic buying organisations. A short-list of potential partners can be prepared from the addresses in Appendix 4. Assistance in selecting a short-list and in organising visits can be obtained from trade associations such as the Swedish Association of Fruit and Vegetable Importers (SFG), or from the government organisations set up to promote imports from developing countries.

The exporter should then arrange a marketing tour, taking with him either produce samples and any sales literature or samples of packaging plus photographs of the produce he proposes to export. The exporter must be able to give full details about the proposed produce, including methods of cultivation, post-harvest treatment, packaging facilities, seasonal availability, and costs at different stages in the supply chain. He should also be familiar with different transport options and have a clear idea about the business terms that would be acceptable to him.

Because competition for the available demand is strong, the exporter must be able to offer something 'extra' to tempt importers to take on a new supplier. This can take the form of high quality produce, superior taste, convincing assurances about volumes available and reliability of supply, evidence of other satisfied customers and so forth. Despite the competition, major buyers and small specialist importers are keen to identify reliable new suppliers, particularly to cover seasonal gaps in demand.

At the end of the market tour the exporter should be able to establish both the landed price and the market price his produce can be expected to fetch, the preferred trading partners and their terms for transacting business that would be mutually acceptable. If possible during the tour, an agreement in principle should be negotiated with one or two partners and the next steps, including a test marketing programme, worked out.

Most secondary and marginal exotics are indirectly sourced through Holland or Germany into all Nordic countries. Dutch and German importers are able

Servicing the Nordic Market

to offer high standards of quality, regular supplies, an extensive product range and generally stable prices. Use of specialist exotic importers in Holland and Germany can be the most effective way for an emergent exporter to enter the Nordic market, especially where there are no direct air or sea freight services to any of the Nordic countries. The type of trading partner appropriate for an exporter should depend on both the type and volume of produce being offered.

Small exporters of exotic produce should select a suitable importer or agent that specialises in the exotic sector for supply to high quality greengrocers, department stores for their fresh product sections and supermarket chains with second generation or marginal exotics.

Medium scale exporters should target the central buying organisations of import/wholesale/retail groups or the Nordic purchasing organisations as a means of gaining access into the supermarket/hypermarket trade.

Large export companies and marketing boards should also direct their marketing activities towards central buying organisations and Nordic purchasing organisations, offering programmed sales and direct delivery to minimise transport costs.

Trends in Produce Sales

For the mainstream, large volume products in all Nordic countries, price has become the most important consideration, followed by appearance, size and taste. During the recession discount stores have gained market share by offering a narrow range of produce at very competitive prices. Second generation and marginal exotics have been largely excluded from these stores. The supermarket and hypermarket chains have responded to the price pressure on exotics in a number of ways: smaller sized fruit is offered to reduce unit costs and prices; buying policies have favoured transport by sea because of significant cost savings over air freight (30% - 40% of cif); and provision of off-season vegetables has been accorded low priority, with sourcing mainly confined to European producers at low prices.

Central buying organisations have traditionally preferred under-ripe fruit to minimise wastage but this has meant that first time buyers of exotics have frequently experienced poor eating quality. In some sectors of the Norwegian and Danish market, customers are being offered higher priced, better eating quality fruit packed nearer the point of ripeness. Examples of this 'taste the difference' approach have been the successful marketing of semi-organic German apples and of Malaysian carambola and Ghanaian pineapples, both transported by air rather than by sea. NAF is actively investigating the use of direct air charter flights to develop this market. This trend is expected to spread to Sweden and Finland.

Servicing the Nordic Market

As the countries pull out of recession, the healthy eating trend should result in a gradual increase in consumption of fruit and vegetables. This should provide opportunities for expansion of sales of selected tropical fruits and off-season fruit and vegetables.

Promotion and Branding

If a consumer is to develop loyalty towards a product he must find that it consistently meets his requirements and expectations. Provided the exporter does have good, competitively priced produce, one of the best ways of building loyalty and securing future orders is through the use of a brand name and a company logo. Large distributive chains often have their own brands and, for a small or medium sized exporter, it is likely to be more cost-effective to meet the standards necessary to secure the buyer's branding rather than use an 'own brand'.

Promotional campaigns are an effective way of boosting sales of exotic produce. The initiative for such campaigns is usually taken by specialist importers, the central buying organisations of large groups or the retailing arms of such groups. Exporters will want to encourage and participate in such promotions.

Introduction

The information provided on each product covers three aspects of market requirements.

First, basic requirements related to type of produce, production and harvesting are outlined including recommended varieties, appearance and internal characteristics. Information is also presented on post-harvest processes as used to prepare produce for markets.



Quality standards are then set out. These are minimum requirements under UN/ECE, OECD or EC regulations, wherever issued, or standards as required by the major buyers. Exporters are advised, however, always to check standards with the importer in case he has more stringent requirements. A section on packaging describes the type of boxes or cartons currently in use and, where common, forms of pre-packing.

Finally there are sections containing commercial information on major sources of supply and seasonal supply patterns, prices, transport and import tariffs. Prices quoted are notional wholesale prices, that is the list prices quoted by central buying organisations to retailing organisations within integrated groups. There are no wholesale markets as such in Nordic countries. National currency prices have been converted into US\$ at the following rates:

Swedish Crown	5.80
Danish Krone	6.20
Norwegian Krone	6.30
Finnish Makka	4.35

The data on import tariffs exclude the sampling and phyto-sanitary fees which are charged on most imported produce (see Appendix 1). Each product description ends with a brief summary of the present market for the product.

Abbreviations and symbols used are:

Relative humidity:	RH
Size grades:	* (acceptable) ** (strongest demand)
Supply pattern chart:	 peak supply  limited supply

Avocados



Varieties: The Hass variety is the most popular in all Nordic countries, particularly Sweden. Green varieties like Fuerte are purchased as alternatives when Hass is unavailable.

Description: The fruit should be pear shaped, coloured either green or dark purple/black characteristic of Hass, and without a stalk. The skin should be thin, usually wrinkled but without marks. Flesh should be firm, yellowish or light green. It contains a large stone.

Field harvest

Correct timing of harvest, based on local experience, is essential to ensure that firm, fully matured fruit are picked. Indicators of maturity are skin gloss changing to matt, stalk drying and yellowing and fruit well filled. Quantitative methods of harvest timing, based on % oil and dry matter content, are available but they are complex to use as they differ with location and variety of fruit.

Post-harvest

Unwashed fruit should be cooled within 24 hours of harvest. Storage conditions: sub-tropical varieties 7-10°C, tropical 10-13°C, both at relative humidity (RH) 60%; storage life 2-4 weeks; shelf life at 20°C is 2-7 days. Avocados are susceptible to chilling injuries, which cause brown flesh discolouration and uneven ripening. Fruit is both an ethylene producer and ethylene sensitive. More information: ISO International Standard No 2295, Avocados - Guide for Storage and Transport.

Grading

Quality standards for export are set by regulations UN/ECE No FFV-42. These specify that fruit should meet the following minimum requirements:

- sound, whole and intact;
- clean, free of foreign matter and excess moisture;
- maximum stalk length of 10mm;
- free of foreign smell or taste;
- ripe fruit free of bitterness;
- free from chilling injury;
- sufficiently mature to ripen completely;
- be uniformly packaged in terms of origin, variety, quality and size.

There are three classes:

'Extra' class: Fruit of superior quality and typical in shape and colour for the variety. The skin must be free of defects except for slight, superficial marks. If present, the stalk must be intact. No more than 5% of fruit should fall below 'Extra' class standards.

Class 1: Good quality fruit with typical shape and colour for the variety. Slight defects in shape, colour, skin marks not exceeding 4 cm square and slight stalk damage are allowed - provided they do not affect overall appearance and storage life. Fruit flesh must be free of defects. No more than 10% of the fruit should fall below Class 1 standard and none below Class 2.

Class 2: Fruit must have flesh free from defects, retain their essential characteristics and satisfy the minimum requirements.

The following sizes/weights of fruit are recognised with the code numbers indicated:

Size Code	Grams
4	781 - 1,220
6	576 - 780
8	461 - 575
10	366 - 460
12 *	306 - 365
14 *	266 - 305
16 **	236 - 265
18	211 - 235
20 *	191 - 210
22 **	171 - 190

Avocados

Until recently, 16 has been the preferred size for taste and quality. However, pressures on prices have encouraged smaller fruit in the count range 20-22.

Packaging

Common box sizes: Single layer, fibreboard; dimensions 40 cm x 30 cm x 10/12 cm, 4.0 kg net weight; Double layer, fibreboard, open topped, reinforced corners, dimensions 40 cm x 33 cm x 20 cm, 12 kg net weight.

Supply

Recent imports statistics are shown below (in tons):

Country	1989	1990	1991
Sweden	3,318	3,267	N/A
Denmark	N/A	1,343	1,734
Norway	N/A	385	481
Finland	583	679	680

Israel and Mexico are the main suppliers during the winter months. Swaziland continues its position as the leading summer months supplier. Excellent quality fruit from Spain, benefitting from five-day road transit times, is increasing its share of the market. US supplies only fill end of season gaps.

	J	F	M	A	M	J	J	A	S	O	N	D
Israel												
Mexico												
Swaziland												
Zimbabwe												
Spain												
USA												

Price

Avocados attract low to medium prices as a generic product. Prices are relatively stable year-round at \$1.60 per kg for sea freight and \$2.00 - \$2.30 per kg for air freight.

Avocados

Transport

Most produce is sea freighted, in containers, to Hamburg, Rotterdam or Marseilles (from Israel). Limited air freight supplies are used to fill shortfalls between major shipment programmes.

Import tariffs

Rates in percentage ad valorem. Tariff number 0804 4000.

Country	Full	ACP	GSP	LDDC
Sweden	0%	0%	0.0%	0%
Denmark				
1 December - 31 May	4%	0%	3.5%	0%
1 June - 30 November	8%	0%	6.0%	0%
Norway	0.18kr/kg	0%	0.0%	0%
Finland	0%	0%	0.0%	0%

Marketing Summary

The market has matured with stable year-round trade competitively supplied mainly from multinationals and marketing boards. The resumption of imports from South Africa is likely to erode Swaziland's market share.

Carambola (Star Fruit)



Varieties: No branded varieties, although Malaysian types are most common.

Description: Fruit is green (unripe) to yellow, oval, with lengthwise ridges which give the fruit a star-shaped cross-section. The flesh is light yellow and translucent. Its taste is either sour or sourish, depending on variety and stage of ripeness.

Post-harvest

Carambolas are susceptible to chilling injury. Storage conditions, recommended 6°C, at RH 90%; storage life (sea freight) of 3 weeks; shelf life, 20°C at RH 60% is 4-5 days. The ridged edges of the fruit are susceptible to bruising which results in brown discolouration.

Grading

There are no national or international standards. Minimum commercial requirements are that fruit must be:

- fresh, intact, sound and clean;
- full bodied, free from spots or brown edges;
- free from pest or disease damage;
- fresh, sourish or sweet-sour in taste.

Usual fruit size is 10 cm in length.

Packaging

The standard package is a fibreboard box, fully telescopic lid, net weight 3.5 kg. Fruit are arranged symmetrically in a single layer, enclosed within 1 cm foam padding, normally packed in counts of 24 per box.

Carambola (Star Fruit)

Supply

No detailed import figures are available.

Malaysia is the main supplier with over 90% of the market. Secondary sources are Thailand, Brazil and Israel.

	J	F	M	A	M	J	J	A	S	O	N	D
Malaysia												
Thailand												
Brazil												
Israel												

Price

Prices are in the range \$3-\$5 per kg for air freighted fruit and \$1.80-\$2.40 per kg for sea freighted produce. The fruit retails at around \$1.20 per piece.

Transport

Over the last five years air freight has been replaced as the main means of transport by sea freight in reefer containers to Rotterdam. Sea freight shipments take 30 days from the Far East. The East Asiatic Company imports by sea direct into Aarhus, Denmark.

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0810 9090.

Country	Full	ACP	GSP	LDDC
Sweden	0%	0%	0%	0%
Denmark	2%	0%	0%	0%
Norway	0.27kr/kg	0%	0%	0%
Finland	0%	0%	0%	0%

Carambola (Star Fruit)

Market Summary

Carambola is a novelty fruit sold in very small quantities. Sales occur mainly during holiday periods, when it is mainly used in decorative cooking and for drinks. New sweet-tasting varieties may expand the market by establishing its dessert eating properties. Quality problems with sea freighted supplies, particularly browning of the ridges, may promote use of air freight, despite higher prices, to give better quality fruit.

Mangoes



Varieties: The most popular varieties are Haden, Tommy Atkins and Keitt, supplemented with Amelia (Mali), Ngowene (Kenya) and Sensation (Florida group).

Description: The shape of the fruit differs with variety and may be round, oval or pear shaped. Skin colour also varies from green to yellow-green ranging to red, orange and violet. Yellow-orange flesh must be ripe and tender, non-fibrous with an aromatic sweet taste. A large, flat seed is firmly embedded in the flesh.

Field harvest

Fruit should be harvested at the fully mature green stage. Indicators are well developed fruit shoulders, full 'cheeks', skin colour change from pale to dark green, and stalk colour change to brown/yellow as it dries. The precise timing varies with cultivar and location. Spray programmes against Anthracnose, from flowering up to pre-harvest interval (PHI) stage, are recommended. On cutting, a 1.5 cm stem should be left which is trimmed back to 2-3 mm at packing.

Post-harvest

Preliminary steps should include stem trimming and further treatment against Anthracnose with hot water (see ISO Standard 6660 - Mangoes, Guide to Storage). Cool rapidly within 24 hours. Storage conditions, 12-14°C at RH 90% for a storage life of 2-3 weeks; shelf life, 20°C at RH 60% for 3-4 days; controlled ripening by the importers at 20°C is preferable. Mangoes damaged by chilling have fibrous flesh and smell of turpentine.

Mangoes

Grading

Export quality standards are provisional (see UN/ECE AGRI/WP. 1/R.142 Rev. 3). The EC minimum requirements are that fruit must be:

- sound, whole, intact and firm;
- clean, free of foreign matter, smell or taste;
- free of damage caused by insects or low temperatures;
- free of marked bruising or excess external moisture;
- sufficiently mature for the ripening process to be completed;
- uniformly packed in terms of origin, variety, quality and size.

Mangoes should be graded to size and coded as follows:

Size code	Grams
A	200 - 350
B**	351 - 550 Standard size
C	551 - 880

The maximum permissible weight variation between fruit in a box is 75 g for A, 100 g for B and 125 g for C. In any one pack at least 90% of the fruit should be within half the permissible weight variation. Absolute limits for the 10% that may vary from the size group chosen for the pack are:

Size	Minimum Weight	Maximum Weight
A	180 g	425 g
B	250 g	650 g
C	425 g	925 g

Packaging

The usual package is a fully telescopic fibreboard box size 40 cm x 30 cm x 10/12 cm containing 4-5 kg net weight of fruit. Fruit should be individually wrapped in tissue and packed in one layer. While numbers per box can range from 6 to 16, preferred box counts are 12-15 (ie smaller fruit at a cheaper price per piece).

Supply

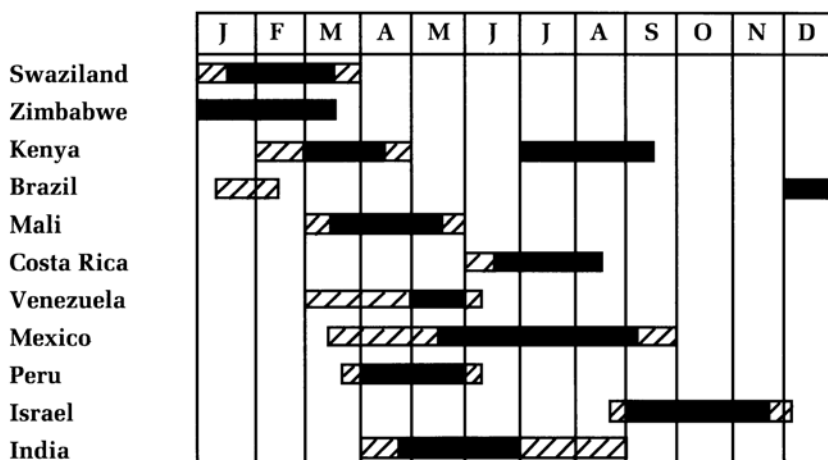
Import statistics cover mangoes, guava and mangosteen. Guava and mangosteen imports are estimated at 5% of the total. Recent import statistics are as follows (in tons).

Mangoes

Country	1989	1990	1991
Sweden	480	505	N/A
Denmark	N/A	261	311
Norway	N/A	191	321
Finland	172	122	131

The large increase in Norwegian consumption in 1991 was due mainly to a NORIMPOD-sponsored generic marketing campaign that resulted in mango imports of 225 tons between May and September 1991.

Mangoes are imported from a large number of countries and no single supplier is dominant. Denmark favours India (25% of 1990 imports); Norway's leading supplier (25%) is Venezuela. Imports to Sweden and Finland from any one country do not exceed 15% of the total.



Price

Mangoes are a medium priced product with prices typically in the range of \$2.40-\$3.70 per kg for air freighted produce and 25-40% lower for sea freighted produce.

Transport

Mangoes are mainly transported by air using direct flights or transited through Paris or Amsterdam. Sea freight shipments are increasing; initial trials with controlled atmosphere containers are encouraging.

Mangoes

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0804 5000.

Country	Full	ACP	GSP	LDDC
Denmark	4%	0%	0%	0%
Sweden	0%	0%	0%	0%
Norway	0.18kr/kg	0%	0%	0%
Finland	0%	0%	0%	0%

Market Summary

The importers are optimistic about future prospects for mangoes in the light of successful promotions. Sea freighted supplies are expected to steadily increase their market share through lower prices. The best opportunities for exporters are to supply high quality, well coloured mangoes during the winter period by sea.

Pawpaw/Papaya



Varieties: In all Nordic markets there is preference for the Hawaiian Solo types, especially Solo and Solo Sunrise. There is specialist interest in Sweden for a hybrid Solo type from Malaysia, Papaya Exotic.

Description: The fruit is pear-shaped, up to 25 cm long. Ripe papaya should be greenish yellow or full yellow and have thin rind. Flesh should be at least 2.5 cm thick, juicy, orange or yellowish in colour and with sugar content above 10% brix. In the centre of the fruit is a hollow space filled with many small inedible seeds.

Field harvest

Ideally fruit should be harvested at the onset of yellowing, equivalent to 5-10% colour. The fruit is extremely delicate and must be handled with great care. Field crates should be lined with sponge. Where fruit intended for sea freight shipment are picked hard and green, this often leads to problems of incomplete ripening. Suitable spray programmes against Anthracnose and black rot are recommended.

Post-harvest

The delicate fruit require a high standard of post-harvest management to avoid fungal diseases attacking bruised and damaged tissue. Good packhouse hygiene, including mild fungicidal washes, is recommended. Serious infections require hot water fungicide treatments. Fungicidal wax applications can assist with Anthracnose control. Storage conditions, 10°C at 90% RH for a storage life of 2-3 weeks; shelf life, 20°C at 60% RH, 2-3 days. Papayas are very susceptible to chilling injury. Affected fruit develop large, hollow spots on the rind and seldom ripen. Papaya is both an ethylene producer and ethylene sensitive.

Pawpaw/Papaya

Grading

There are no international standards. Minimum commercial requirements are that fruit should be:

- intact, clean, sound and fresh in appearance;
- free from spots, growth cracks, mechanical damage;
- free from disease or pest damage;
- full-bodied without any foreign smell or taste.

Fruit should be graded to size. A ripeness grading system similar to that for pineapples is widely used. Maturity grades are:

Maturity Grade	Description
M1	Green fruit with yellow tip
M2	Fruit one third yellow
M3	Fruit half or more yellow

Packaging

The standard export package is a fibreboard box with full telescopic lid, size 30 cm x 40 cm x 10/12 cm. Fruit should be laid diagonally in a single layer, preferably with a protective base of paper wool or wood wool and and wrapping around each fruit.

The usual packing specification is for fruit counts per box of 10-14 giving 4.0 kg net weight. Count 12 is the norm with fruit weights in the range 320-350 g. Papaya Exotic fruit are packed 4-10 per box with a norm of 6.

Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	249	234	N/A
Denmark	N/A	16	25
Norway	N/A	16	18
Finland	42	45	51

Costa Rica is the leading exporter to Finland (50% - 60% of imports) and also to Sweden (almost 50%). Other exporters are Thailand, Israel, Malaysia and Ivory Coast. Supplies are available all year round from Brazil.

Pawpaw/Papaya

	J	F	M	A	M	J	J	A	S	O	N	D
Brazil												
Costa Rica												
Thailand												
Israel												
Malaysia												
Ivory Coast												

Price

Typical prices are in the range \$3.20-\$3.50 per kg for air freighted fruit, with sea freighted prices approximately 50% cheaper.

Transport

Sea freighted shipments are notoriously difficult, requiring specialised post-harvest handling facilities and expert technical management to be successful. In the later stages of the distribution chain wastage rates are very high. Most shipments are sent by air into Copenhagen or Amsterdam.

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0807 20 00.

Country	Full	ACP	GSP	LDDC
Sweden	0%	0%	0%	0%
Denmark	2%	0%	0%	0%
Norway	0.60kr/kg	0%	0%	0%
Finland	0%	0%	0%	0%

Market Summary

For such a well known and established tropical fruit, imports of papaya into Nordic countries are very small. Existing markets are concentrated in the capital cities serving ethnic and 'well travelled/young' market segments. Some sales resistance occurs because much of the produce on sale is rather tasteless due to the practice of importing under-ripe fruit to minimise waste. The major importer/wholesaler/retail groups are cautiously optimistic that imports will increase substantially in response to carefully planned promotions, as in the case of mangoes, and changes in importers' specifications about the state of maturity at harvest and packing.

Passion Fruit



Varieties: There are numerous varieties within two main families, *Passiflora edulis*, the purple skinned passion fruit, and *Passiflora ligularis* or Grenadilla.

Description: The passion fruit is a thick-shelled berry containing numerous seeds, each seed enclosed in an aril. These arils collectively comprise the jelly-like edible flesh. The fruit should be round or egg-shaped, *edulis* 4-5 cm in diameter and deep purple when ripe and Grenadilla 7-8 cm in diameter. The taste is refreshing, though somewhat sour, and it is the most aromatic of fruits.

Field harvest

Purple passion fruits should be picked when the dark purple skin colour has developed and the fruit separates easily from the vine. Although the hard rind or 'shell' becomes wrinkled when fully ripe, fruit should not be allowed to dry out. Skin damage should be avoided by picking into fibreboard cartons or a picking bag.

Post-harvest

Systematic control of brown spot fungal disease is important, through pruning, orchard hygiene, a regular spray programme and proper post-harvest handling. Storage conditions, 8°C at RH 90% 3 - 4 weeks; shelf life, at ambient temperatures, 7 - 10 days. Fruit is susceptible to chill injury below 6°C ambient temperature. The fresh fruit is a prodigious producer of ethylene gas and therefore should be kept separate from sensitive fruit such as avocados.

--- **Passion Fruit** ---

Grading

There are no national or international standards. Minimum commercial requirements are that fruit must be:

- intact, clean and sound;
- free from mechanical damage;
- free of skin cracks or spots;
- free of excess moisture;
- free of foreign smell or taste;
- true to type in size and texture;
- uniformly packaged in terms of origin, variety, quality and size.

Packaging

The standard package is a well-ventilated fibreboard box, with fully telescopic lid, sized 30 cm x 20 cm x 15 cm or 30 cm x 25 cm x 20 cm. The single-layer wooden box currently used in Chile is not liked by importers. Fruit should be packed in double layers giving net weights varying from 2.5 kg to 3.5 kg depending on the type of box and method of packing.

Supply

There are no import statistics for Nordic countries. The most important supplier is Zimbabwe, followed by Chile which is emerging as a major new source.

	J	F	M	A	M	J	J	A	S	O	N	D
Zimbabwe								/			/	
Kenya					/		/					
Chile			/	/	/	/	/	/	/			
Columbia				/	/	/	/	/				

Although imported on a year-round basis, the main sales period is spring.

Price

Typical prices for air freighted fruit range from \$5.10 to £5.80 per kg.

Transport

Fruit is mainly air freighted into Copenhagen or Amsterdam or Frankfurt for onward distribution to the Nordic markets.

Passion Fruit

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0810 9010.

Country	Full	ACP	GSP	LDDC
Sweden	0%	0%	0%	0%
Denmark	2%	0%	0%	0%
Norway	0.27kr/kg	0%	0%	0%
Finland	0%	0%	0%	0%

Market Summary

In each country the market for passion fruit is very small. Most supplies are sourced through established exotic importers in Holland or Germany. There are modest growth prospects in line with overall demand for exotics.

Peaches and Nectarines



Varieties: There are numerous main season varieties including, among peaches, Maycrest, Merrill, Gem Free, Flavour Crest, Elegant Lady and Cal Red. Nectarine varieties are Fairling, Flame Kissed, May Grand and September Red.

Description: Peach fruit are round, coloured yellow blushed with red, and covered with a downy skin. Nectarines are smooth skinned and more vividly coloured, with a glossier skin texture. Flesh, ranging from yellow to white, should be juicy and aromatic in flavour. The flesh encloses a stone with a perforated surface.

Field harvest

Tree-ripened fruits are more flavoursome but susceptible to physical damage and should be hand picked into lining buckets or bins. Fruit picked before full ripeness need less careful handling but if harvested at the hard green stage will not ripen fully and achieve the typical aroma.

Post-harvest

Provided they are sufficiently mature when picked, peaches and nectarines can undergo softening and sweetening after harvest. Serious post-harvest decay from blue mould rot, brown rot or grey mould rot can be minimised by prompt cooling to 0°C at 90-95% RH. Typical storage periods, 2-4 weeks for peaches and 2-6 weeks for nectarines.

Peaches and Nectarines

Grading

Quality and grading standards for peaches and nectarines are defined by EC Regulation 1107/91. The minimum requirements are that fruit must be:

- sound, whole, intact and clean;
- free of foreign smell or taste;
- practically free from pests and pest damage;
- free of abnormal external moisture;
- carefully picked and fully developed and with a state of ripeness and colouring that will enable them to withstand transport and handling and arrive in satisfactory condition;
- uniformly packaged and contain only fruit of the same origin, variety, quality, degree of ripeness and size.

There are two export classes, 'Extra' class and Class 1.

'Extra' class fruit must be:

- of superior quality without defects;
- typical of the variety in terms of shape, development, colouring;
- uniform in colour in each package;
- above 56 mm in diameter or 17.5 cm in circumference;
- packed with not more than 5% of fruit falling short of 'Extra' class and then not below Class 2 standards;
- consistent in size with a maximum of 10% up to 3 mm more, or less, than the diameter stated on the case (or 1 cm when circumference is used).

Class 1 fruit must be of good quality with undamaged flesh free from cracks. Slight defects in shape, development or colouring are permissible. Skin defects may be allowed provided that these do not affect the general appearance, its quality, shelf life or presentation. These defects must not exceed:

- 1 cm in length for defects with an elongated shape;
- 0.5 cm square in total area for other defects.

Up to 10% of the fruit can be below Class 1 standard, but must be within the quality standards of Class 2. Size tolerances are the same as those for 'Extra' size.

Peaches and Nectarines

Peaches and nectarines must be size graded into one of the following classes:

Size code	Diameter (in mm)	Circumference (in cm)
AAAA	90 and over	28.0 and over
* AAA	80 - 90	25.0 - 28.0
** AA	73 - 80	23.0 - 25.0
** A	67 - 73	21.0 - 23.0
** B	61 - 67	19.0 - 21.0
* C	56 - 61	17.5 - 19.0
D	51 - 56	16.0 - 17.5

Packaging

The most common forms of packaging are strong fibreboard cartons of 40 cm x 30 cm x 10/15 cm in size or wooden crates of 30 cm x 50 cm x 10/15 cm in size. 'Extra' class must be packed in a single layer using either a cell-pack or pre-formed tray to hold individual fruit apart or in pre-pack punnets of 0.5 kg or 1.0 kg net weight. Class 1 can be packed in two layers using rigid pocket tray systems or tissue overwraps to separate fruit. The Nordic markets prefer the 5-6 kg net weight box, size A or B fruit with counts of 25 or 28.

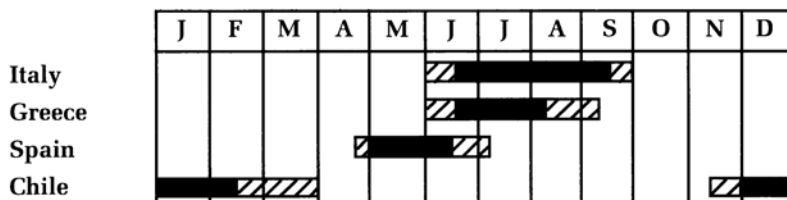
Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	15,110	15,160	14,519
Denmark	N/A	9,766	8,007
Norway	N/A	4,034	3,344
Finland	1,876	2,030	2,154

The main market is during the traditional summer season. Italy dominates exports into all Nordic countries with market shares of Sweden 92%; Denmark 87%; Norway 85%; Finland 67%.

Import during the period from December to May are less than 5% of total annual imports, Chile being the principal source.



Peaches and Nectarines

Price

During the peak summer season, prices range from \$0.60 to \$0.70 per kg for peaches, with nectarines about 25% higher. Off-season imports of peaches have a price of \$1.70 per kg and nectarines \$2.10 per kg. Over-supply during the off-season can rapidly drive prices down to the \$1.0 per kg level.

Transport

Italian fruit is transported by road, being typically five days in transit. Imports from Chile are by sea, taking about 4 weeks and in consequence suffer frequently from loss of quality, particularly during the latter part of the off-season period.

Import tariffs

Tariffs for developing countries come under the GSP system and are duty-free, with the exception of Denmark (see below). For non-developing countries, a complex system of variable-rate tariffs is in place. Tariff number 0809 3000.

Period	Full	ACP	GSP	LDDC
1 - 31 December	22%	9.7%	22%	22%
1 January - 30 November	22%	7.3%	22%	22%

Market Summary

Peaches and nectarines are a well established and important summer fruit imported in large volumes from Southern Europe. There are fair prospects for growth of off-season supply from September to May, particularly into Sweden, Norway and Finland. Nectarines are expected to continue expanding market share at the expense of peaches.

Persimmon



Varieties: The Israeli variety predominates, although Kaki varieties are imported during the summer period. Non-astringent Fuji varieties are occasionally imported.

Description: The fruit resembles the tomato, but is identifiable by its four large sepals; smooth shiny reddish orange skin; orange flesh with one or no seeds. Sharon fruit remains firm when ripe and has a smooth sweet-tasting pulp. Many other varieties have a bitter taste except when the fruit is soft and ripe.

Field harvest

Persimmons should be harvested when hard ripe as indicated by skin colour and sugar content. A pre-harvest spray with a growth-regulating chemical can be used to promote uniform maturity in the crop.

Post-harvest

Storage in polyethylene bags is recommended. Storage conditions for Sharon: 2°C at 90% RH, other varieties 0°C at 90% RH, giving extended storage periods up to 3 months; shelf life, 20°C at 60% RH, 7-10 days.

Grading

There are no national or international standards. Minimum commercial requirements are that fruit must be:

- intact, clean, sound and fresh;
- free of foreign smell or taste;
- free of damage or blemish to the skin;
- uniformly packaged in terms of size and stage of ripeness in each carton.

Persimmon

Packaging

The standard packaging is a fibreboard, open topped carton with reinforced corners size 40 cm x 30 cm x 10 cm. Fruit should be packed in a single layer normally to a count of 24 giving a net weight of 2.5 kg. The count may be 18 at the start and end of the season.

Supply

There are no import statistics. Israel is the dominant supplier of Sharon fruit during October to March. Brazil is the most important summer supplier of Kaki types.

	J	F	M	A	M	J	J	A	S	O	N	D
Sharon												
Israel												
Kaki												
Italy												
Spain												
Brazil												
New Zealand												
Chile												

Price

Israeli Sharon fruit obtain prices from \$1.80 to \$2.20 per kg. Limited quantities of summer fruit from Brazil fetch higher prices from \$2.70 to \$3.25 per kg.

Transport

Israeli Sharon fruit are sea freighted under refrigeration into Marseilles and Rotterdam and trucked into Nordic countries. Supplies from other countries are also sea freighted.

Import tariffs

Rates in percentages ad valorem. Tariff number 0810 9010.

Persimmon

Country	Full	ACP	GSP	LDDC
Sweden	0%	0%	0%	0%
Denmark				
1 December - 31 July	11%	0%	6%	0%
1 August - 30 November	11%	0%	0%	0%
Norway	0%	0%	0%	0%
Finland	0%	0%	0%	0%

Note: Special rates apply in Denmark:

Date	Israel	Cyprus
31 July - 1 December	4.9%	7.0%
1 August - 30 November	11.0%	11.0%

Market Summary

There is widespread optimism about prospects for Sharon fruit. Demand is steadily increasing as the fruit gains popularity with consumers. Given suitable promotion in individual national markets, sustained growth in imports can be expected. Excellent opportunities exist for exporters who can supply sea freighted Sharon during the April - October market window, provided they can match Israeli standards of quality and service.

Pineapples



Varieties: Imports are almost exclusively of Smooth Cayenne type.

Description: The fruit forms on a short sturdy stem that grows through the fruit and ends in a tuft of leaves. The surface of the fruit should be greenish-yellow or golden; green fruit is not acceptable. The flesh should be golden or yellow, juicy and firm without being fibrous. The leaves should be green and undamaged.

Field harvest

Fruit production is programmed through use of growth-regulating chemicals that synchronise flowering. Application of ripening agents to maturing fruits helps to ensure crop uniformity and continuity of supply. Fruit for sea freighting should be harvested after the base of the fruit has begun to turn yellow (M1). Riper fruit coloured up to half height (M2 to M3) should be air freighted.

Post-harvest

Fruit should be cooled as rapidly as possible and treated with fungicide against Black Rot within 6 hours of harvest. Careful handling of the fruit is essential to minimise fungal disease. Storage conditions for unripe fruit, 10°C at 90-95% RH, 3-4 weeks. Ripe fruit require lower temperatures, from 6°C - 8°C at 95%RH, giving a storage life of 2-3 weeks. Shelf life at 20°C is approximately 3 days. Chilling injuries may result in brown or dull black skin, watery flesh and wilted leaves.

Grading

There are no national or international standards for pineapples. However, by convention Ivory Coast grading standards are generally observed.

Pineapples

Fruit are graded by weight according to the following code.

Size code	Size specification	Recommended transport
A*	1.5 kg and over	Air freight
B*	1.1 kg - 1.5 kg	Sea freight
C*	0.8 kg - 1.1 kg	Sea freight
D	below 0.8 kg	Sea freight

Pineapples are normally packed horizontally to count 6 for size A, count 12 for sizes B & C, and count 20 for size D.

Packaging

For sea freight the standard package is a fibreboard carton with fully telescopic lid size 50 cm x 40 cm x 16 cm to fit the reefer pallets. For air freight the carton size is normally 40 cm x 30 cm x 15 cm.

Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	1,880	1,789	N/A
Denmark	N/A	2,898	3,033
Norway	N/A	760	806
Finland	740	754	674

Imports by NAF into Hamburg, included within these national statistics, totalled 1,100 tons in 1991.

The Caribbean area has replaced West Africa as the main supply region, particularly for sea freighted fruit. Honduras, Costa Rica and the Dominican Republic are the major suppliers throughout the season.

	J	F	M	A	M	J	J	A	S	O	N	D
Honduras												
Costa Rica												
Dominican Republic												
Ghana						▨				▨		
Ivory Coast				▨							▨	

Pineapples

Price

Sea freighted fruit have prices in the range \$0.85-\$1.0 per kg. For air freighted fruit the range is \$2.20-\$2.75 per kg.

Transport

Pineapples are mainly shipped by sea in refrigerated vessels using reefer containers. West African sea freight rates have become more expensive than those from the Caribbean.

Import tariffs

Rates in percentages ad valorem. Tariff number 0804 3000.

Country	Full	ACP	GSP	LDDC
Sweden	9%	0%	0%	0%
Denmark	9%	0%	9%	0%
Norway	0%	0%	0%	0%
Finland	0%	0%	0%	0%

Market Summary

The market has matured and no large increases in demand for the fresh fruit are expected. Canned pineapple retains its popularity with consumers. There are limited opportunities for new suppliers of sea freighted pineapples offering better colouration than Caribbean sources at competitive prices. There is sufficient demand to support a programme of premium-quality air freighted fruit.

Sweet Melons



Varieties: In the winter melon group, the Yellow Honeydew types, Honey melon or Yellow Honey melon, are popular. White Honeydew, green Tendril and Ogen melons are not imported. In the net melon group, Galia is the most popular. Demand for cantaloupes, particularly the Charentais variety, is very limited.

Description: Honeydew melons are normally oval in shape with longitudinal grooves running through the smooth yellow skin. Flesh should be juicy; colour varies from light green to the more usual yellow.

Galia melons are round, smaller than honeydew, greenish yellow in colour with a net pattern on the skin. Galia has light green flesh with an excellent aroma and taste. Minimum sugar content should be about 10% brix. Charantais melons are distinctive for their juicy orange flesh with an excellent flavour.

Field harvest

Determining the optimum time to harvest honeydew melons is not easy. It can be determined scientifically by measurement of sugar content but account has to be taken of transit time. Colour changes to the ground spot and stalk can be used as a practical guide. Both net and cantaloupe types are best harvested at 'full slip' when the fruit stalk is ready to separate naturally from the vine. Fruit destined for longer transit times can be harvested at the 'half slip' stage without detrimental changes to flavour and taste. Because of their short storage and shelf life, premature harvesting is common.

Sweet Melons

Post-harvest

Melons are very sensitive to damage and a high standard of care throughout the marketing process is required. Prompt cooling of all melons is essential to maintain sugar levels. Storage conditions vary for each group.

Type	Storage temperature	Relative humidity	Shelf life (days)
Net	6-9°	95-90%	10-14
Net	20°	60%	3-5
Honey	10-14°	85-90%	16-20
Honey	20°	60%	10-14
Cantaloupe	3-5°	85-90%	10-14
Cantaloupe	20°	60%	3-5

Ethylene treatment, to promote uniform ripening, is usually applied to Honeydew melons prior to sea freight shipment. Waxes incorporating fungicides can also be used.

Grading

The minimum quality standards for fruit (see UN/ECE FFV-23 &)ECD: No38) require them to be:

- sound, whole, intact, clean;
- fresh in appearance;
- sufficiently developed and ripe;
- typical in shape and colouring for the variety;
- free of foreign smell or taste;
- uniformly packaged in terms of origin, variety, commercial grade, size, shape, colour and maturity.

There are two classes: Class 1 and Class 2

Class 1 melons must be of good quality, well developed, free of cracks and bruises. Slight cracks of less than 2 cm around the peduncle are permitted. The fruit must be graded by weight or diameter. The heaviest melon should not weigh more than half as much again as the smallest. If the size is expressed in diameter, the largest melon must not exceed the diameter of the smallest by more than 20%. No more than 10% of fruit, by number or weight, can be below Class 1 standards.

Class 2 melons must satisfy the minimum requirements. Provided that they retain their essential characteristics with regard to quality, shelf life and presentation, then some slight defects in shape, skin colour and cracking are allowed.

Sweet Melons

Packaging

Standard packaging: single layer in fully telescopic fibreboard box with ventholes, typically 50 cm x 40 cm x 15 cm taking 10 kg of fruit for sea freight shipment. Air freight shipments are normally in 5 kg boxes. In 10 kg boxes, Honeydew counts of 10-12 are preferred with 8's for the catering trade. Usual counts for Galia, packed in 5 kg cartons, are 8-10. To prevent bruising, melons normally have to be packed with filling materials, ie tissue paper, wood wool or shredded paper, or in compartmented trays to prevent fruit-to-fruit damage. Expanded plastic nets can be used instead of loose filling materials. Honeydew melons are generally packed on their sides, whereas other melons are packed on their base.

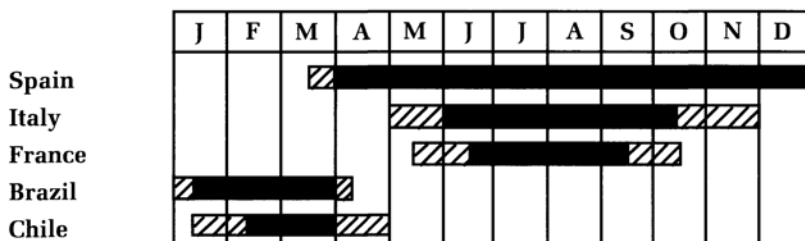
The sea freight Brazilian carton, measuring 50 cm x 40 cm x 15 cm, uses an interlocking cardboard divider to separate the fruit.

Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	13,391	13,369	15,665
Denmark	N/A	4,244	6,024
Finland	726	636	825

Norway's import statistics do not separate sweet melons from watermelons and have therefore been excluded. Yellow Honeydew melons account for approximately 90% of sweet melon imports into Nordic countries. The fruit is available year-round but peak sales occur during the summer supplied from Southern Europe. Spain is the leading supplier, accounting for approximately 50% of total Honeydew sales. Brazil is the main supplier during winter months, with Chile emerging as an alternative. Melon imports into Finland are more evenly spaced throughout the year because of high tariff rates on European supplies. Of Finnish melon imports in 1991, 326 tons of Honeydew came from Spain and 237 tons from Brazil.



Sweet Melons

Price

Prices for Honeydew melons are fairly stable throughout the year, except during the transition from Brazil to Spain when shortages can temporarily increase prices by 30% - 50%. Average prices are \$8 per box of 10 kg for Spanish; \$14 per box of 10 kg for Brazilian.

Transport

European supplies come by road and South American supplies by sea freight, usually into Rotterdam.

Import tariffs

Rates in percentages ad valorem. Tariff numbers 0807 1020 and 1090.

Country	Full	ACP	GSP	LDDC
Sweden				
16 June - 30 September	18%	0%	0%	0%
1 October - 15 June	0%	0%	0%	0%
Denmark	11%	0%	11%	0%
Norway	0%	0%	0%	0%
Finland	25%	0%	0%	0%

Market Summary

The rapid market expansion for summer fruit over the last five years is slowing down as the market matures. Export opportunities are for winter supplies (January - April) by sea to compete with South American sources, particularly on a quality basis.

Asparagus



Varieties: Numerous different varieties are grown, particularly those originating from the University of California such as UC 157, F1 and F2 UC 157 and UC 72. Other American varieties are Mary Washington and Mary Washington 500 W, orientated to 'Jumbo' production, and Lucullus, Franklin, Rutgers Beacon and Boomlin.

Description: Asparagus spears are long, slim tender shoots with tightly closed leaves at the tip, that grow rapidly from the fleshy underground stem or 'crown' of the asparagus plant. The spear tips should be closed, undamaged and have a straight stem. Asparagus should break easily when fresh and exude juice if punctured. The flesh must not be stringy or woody. White asparagus flesh should be extremely soft.

Field harvest

White asparagus is grown in beds that have been earthed up. The spears, growing up through the loose earth ridges, are harvested just as the tips break the surface. Green asparagus spears grow out of flat beds, making harvesting much easier and cheaper. Most commercial plantations of asparagus, either white or green, are harvested in their natural spring period. Harvesting normally has to be carried out at least once per day using sharp knives or long-handled blades.

Post-harvest

Asparagus spears require extremely high standards of handling, cooling and packing if they are to reach the market in good condition. After cutting, the spears should be washed, trimmed to size, graded and bundled. Rapid cooling, using chlorinated iced-water in a hydrocooler, is essential. Bacterial soft rot is the

Asparagus

commonest post-harvest disease and can cause serious losses. Control is through good hygiene, handling and cooling. Storage is possible for up to 6 days at 0-2°C at RH above 95%. (See International Standards: ISO 4186, Asparagus - Guide to Storage. ISO 6882, Asparagus - Guide to Refrigerated Transport.)

Grading

Asparagus grades are defined by the ECE regulation No 454/92. Quality standards have also been issued by UN/ECE: No FFC-04 and by the OCED: No 19. The EC minimum requirements are that spears must be:

- whole, intact, sound and fresh smelling;
- clean, free of foreign smell and taste;
- practically free from pests and foreign matter;
- practically unbruised;
- free of damage caused by rodents or insects;
- free of excess external moisture;
- cut clean square at the base of the spear;
- able to withstand transport and handling and arrive in satisfactory condition;
- uniformly packaged in terms of origin, quality, colour and size.

The asparagus must not have been treated, apart from cooling, to preserve or restore its fresh appearance. In addition the spears must not be hollow, split, peeled or broken. Small cracks which appear during harvesting are allowed provided that they do not exceed the specified tolerances. Small differences are allowed in spear colour. 'White' asparagus can have up to 10% violet asparagus, 'green' asparagus can have up to 10% of another colour.

There are three classes: 'Extra' class, Class 1 and Class 2. For all classes spear diameter is measured at its mid-point.

'Extra' class spears must be of superior quality, well formed and practically straight, with very compact tips. A trace of rust is allowed provided it can easily be removed by peeling. 'White' tips must be white; only a faint tint of pink is allowed provided it appeared after cutting. 'White' and 'violet' spears should not have any traces of woodiness, but 'green' spears can have a slight trace. No more than 5% of spears should fall short of 'Extra' class standards and then not below Class 1 standards.

The length of the spears must be 17-22 cm for long asparagus; 12-17 cm for short asparagus. Green asparagus can have a maximum length of 27 cm, but at least one third must be green. Sizes under 12 cm are called asparagus tips.

Asparagus

Spears must have a diameter of 12-16 mm. Spears of 16 mm must not have a diameter variation of over 8 mm in each bundle. Up to 10% of spears can be outside the dimensions indicated subject to a maximum deviation of 1 cm in length and 2 mm in diameter.

Class 1 Asparagus must be of good quality and well formed with compact tips. They may be slightly curved. A trace of rust is allowed provided that it can easily be removed by peeling. 'White' tips may be slightly coloured before cutting, and a faint tint of pink is allowed provided it disappears after cooking. Slight scarred cracks which appear after harvesting are allowed. No more than 10% of the spears should fall short of Class 1 quality standards and then not below Class 2 standards. Class 1 must have a diameter of 10-16 mm. Over 16 mm is allowed, provided that the maximum variation within the bundle does not exceed 10 mm. The length specifications are the same as for 'Extra' class. Up to 10% of spears can be outside the size indicated subject to a maximum deviation of 1 cm in length and 2 mm in diameter.

The Swedish market for asparagus is split 50/50 between white and green. Green asparagus is expected to increase in popularity at the expense of white. Demand in the other Nordic countries is for green asparagus. The popular size, common to all markets, is for spears between 16 mm and 20 mm. 'Jumbo' spears, 20 mm plus, are mainly used in the catering trade. Smaller spears in the range 10 mm/12 mm to 16 mm are a rapid growth sector of the green asparagus market.

Packaging

The usual international carton for air freight is a trapezoidal box of base size 25 cm x 20 cm made from strong double wall, wax fibreboard. The box contains 12 bundles of 500 g each, 6 kg net weight. The spears should be packed upright with the stems standing on a wet sponge or a piece of wet cardboard. European asparagus is often packed in wooden crates, either horizontal or standing upright; net weights of 6 kg or 12 kg are common.

Pre-packed asparagus is the normal market system in Denmark. Retail outlets prefer 16-20 mm spears, laid neatly in 250 g clear plastic trays over-wrapped with micro-perforated PVC film. The market for pre-packs in the other Nordic countries is very small, the norm being unwrapped bundles of either 250 g or 500 g net weight.

Supply

Recent import statistics are shown overleaf (in tons).

Asparagus

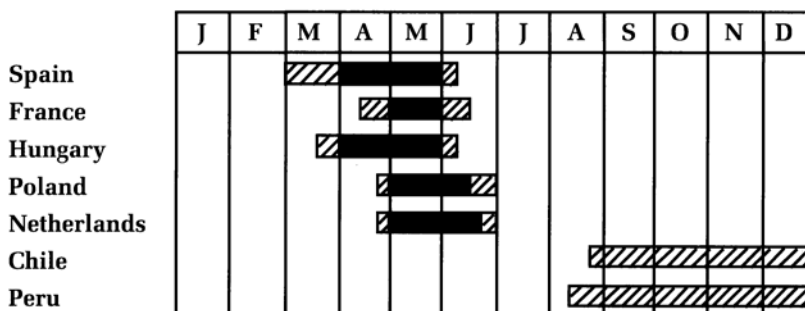
Country	1989	1990	1991
Sweden	111	117	N/A
Denmark	N/A	90	176
Norway	N/A	81	82
Finland	35	38	39

Import tariffs

Rates in percentages ad valorem. Tariff number 0804 30 0090.

Country	Full	ACP	GSP	LDDC
Sweden	9%	0%	0%	0%
Denmark	9%	0%	9%	0%
Norway	0%	0%	0%	0%
Finland	0%	0%	0%	0%

The overall market for fresh asparagus is very small compared with other European markets. Approximately 80% of all imports are from Europe during the period March to May, about half coming from Hungary and Poland. Import quantities during the rest of the year are very low, and mainly for the catering trade.



Price

Asparagus is a high priced 'luxury' product. Prices in the spring for 'green' range from \$3.40 to \$4.10 per kg, and for white around \$6 per kg. Air freight supplies from South America average \$7.00 to \$7.50 per kg.

Asparagus

Transport

Supplies from Europe come by road, and from other sources exclusively by air. Sea freight is not feasible for asparagus.

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0709 2000.

Country	Full	ACP	GSP	LDDC
Sweden				
1 May - 30 January	14%	14%	14%	0%
1 July - 30 April	0%	0%	0%	0%
Denmark				
1 March - 30 September	16%	16%	16%	16%
1 October - 31 December	16%	9.6%	12%	0%
1 - 15 January	16%	7.2%	12%	0%
16 - 31 January	16%	9.6%	12%	0%
1 - 28 February	16%	16%	12%	0%
Norway				
1 May - 14 November	0.25 kr/kg	0%	0%	0%
15 November - 30 April	0%	0%	0%	0%
Finland	16%	16%	16%	0%

Market Summary

Green asparagus is the preferred variety. The market is fairly static in Sweden, Norway and Finland, with consumer interest restricted to the cheaper supplies that are available during the European spring. Denmark's more sophisticated pre-packed market is growing strongly. Opportunities exist for air freighted asparagus in the period from December to February.

Aubergines



Varieties: The most popular are the dark purple Florida types, Black Beauty and Long Purple.

Description: Generally elongated oval, but sometimes round, with dark purple, almost black, skin. The green spiny calyx should be intact with a short, neatly-trimmed stalk. The pulp is spongy, pale and contains a number of light brown seeds.

Field harvest

Aubergines are harvested immature when crisp and firm. They should be cut from the plant to leave a small stem. Careful handling is required to avoid skin damage.

Post-harvest

Aubergines have a rather short storage life. Common post-harvest diseases include grey mould rot, rhizopus rot and phomopsis rot. Exposure to ethylene is detrimental since it hastens senescence, characterised by browning. Storage conditions: 8-10°C at 90-95° RH for 10-14 days; shelf life at 20°C, 3-4 days.

Grading

Aubergine grades are defined by EC Regulations 1292/81 and 1822/81 which stipulate that all aubergines must be:

- whole, firm, sound, clean;
- fresh in appearance;
- intact in calyx and peduncle, which may be slightly damaged;
- sufficiently developed, without their flesh being fibrous or woody and without overdevelopment of seeds;
- free of abnormal external moisture;
- free of any foreign smell or taste.

Aubergines

Two classes are defined, Class 1 and Class 2.

Class 1 must be of good quality and practically free of sun scorch. They may show slight defects in shape, discolouration at base, bruising and/or healed cracks of not more than 3 sq cm.

Class 2 may show defects of shape and colouring, slight sun-scorch or dry superficial defect not more than 4 sq cm.

Specification tolerances are a minimum diameter of 40 mm for long aubergines, maximum variation 20 mm; minimum diameter of 70 mm for global type, maximum variation of 25 mm.

The following weights are recognised: 125 g, 225 g*, 300 g*, 400 g*, 500 g.

The minimum weight is 100 g, most popular sizes being in the range 225 g to 400 g. There is an emerging interest in 'jumbo' aubergine at 500 g. Long aubergines, such as Long Purple, should be 25 cm in length, 8 cm diameter; Black Beauty, 12.5 cm long, 9 cm diameter.

Packaging

The standard packaging is either the Dutch fibreboard box, 30 cm x 40 cm x 15 cm, or Spanish box, 40 cm x 30 cm x 22 cm. Both have full telescopic lid and are packed double layer to give a net weight of 5 kg. Blue paper (Spanish) dividers are used to protect the aubergines. Eighty boxes fit a Euro-pallet.

Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	1,030	1,186	N/A
Denmark	N/A	250	293
Norway	N/A	166	190
Finland	146	163	177

Imports from the Netherlands supply between 50% (Sweden) and 75% (Finland) of the total into Nordic countries. Spain, Italy and Turkey are the other main European producers while The Gambia is emerging as an off-season supplier.

Aubergines

	J	F	M	A	M	J	J	A	S	O	N	D
Holland			///								///	
Spain				///								
Italy												
Turkey								///				///
Gambia												
Israel			///									

Price

Prices reflect the seasonality of the market, the average price being \$2.20 per kg. During the December to February period prices peak at \$4.50 per kg, falling to \$1.60 in late summer.

Transport

Supplies from Europe are by road. Off-season imports are mainly air freighted.

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0709 3000.

Country	Full	ACP	GSP	LDDC
Sweden				
1 May - 30 November	10%	10%	10%	0%
1 December - 30 April	0%	0%	9%	0%
Denmark				
1 April - 31 December	16%	0%	16%	0%
1 January - 31 March	16%	0%	9%	0%
Norway	0.80kr/kg	0%	0%	0%
Finland	5%	0%	0%	0%

Market Summary

The market for aubergines has matured. Demand in all Nordic countries has stabilised and no significant increases in consumption are expected. Dutch aubergines, purchased through the vegetable auction system, have become well established with consumers for their very high standard of visual appearance and uniformity. The best opportunity for exporters lies in the period December - March, for which importers are keen to source high quality aubergines.

Beans



Varieties: A broad range of cultivars are marketed within the *Phaseolus vulgaris* species, the more popular being stringless bobby beans; others are 'fine' or 'extra fine' beans.

Description: Bobby beans have thin straight pods free from fibres, between 10 cm and 20 cm long, 1.0-1.5 cm thick, light to dark green in colour. More slender needle type beans, 0.5-1.0 cm thick, 10-15 cm long, are classed as 'fine' and 'extra fine'. Bean pods are fleshy, round, with 8-12 underdeveloped seeds at harvest.

Field harvest

Bobby beans are normally harvested on alternate days while fine beans need to be harvested daily. Reducing field heat levels by harvesting early in the day, the use of shade covers and rapid transport to the packhouse are all important to achieve optimum quality.

Post-harvest

Harvested beans have an extremely high rate of respiration and consequently a very short storage life. Rapid cooling, grading and packing, within 1-2 hours, is essential. Storage conditions, 7-8°C at RH 95-100%, giving storage life of 1-2 weeks. Shelf life at 20°C is a maximum of 1-2 weeks.

Grading

International standards for green beans cover both grading and quality criteria:

Grades: EC regulation No 58/62
(Amendment No. 920/89)

Quality: UN/ECE: No FFV-06; OCED: No 15.

Beans

The EC minimum requirements are that all beans must be:

- whole, clean, intact, sound and fresh in appearance;
- free of damage caused by insects and pests;
- free of foreign smell or taste;
- free of excess moisture;
- able to withstand transport and handling and arrive in satisfactory condition;
- uniformly packaged in terms of origin, variety and quality and, in the case of needle (fine) beans, the same size.

The two groups of beans, bobby and fine beans (otherwise called 'needle' or 'filet' beans), have slightly different grading standards.

Class 1 bobby beans must be of good quality, young, tender, stringless, easily broken and practically free of spots caused by wind but free of other blemishes. The seeds must be small and tender. The quality tolerances are the same as those for Class 1 fine beans.

Fine beans for export are graded into two classes, 'Extra' class and Class 1.

'Extra' class fine beans must be of superior quality. They must be turgescient, very tender, seedless, stringless, and free of defects. No more than 5% can fall short of 'Extra' class standards and then not below Class 1 standards. They must be classified as extra fine or very fine with a maximum pod width of 6 mm. A maximum of 10% can be outside the size specification.

Class 1 fine beans must be of good quality. Slight colouring defects, soft seeds and short soft strings are allowed provided that they do not affect the general appearance of the produce. No more than 10% can fall short of Class 1 standards and then not below Class 2, but not more than 5% may have strings. Beans can be graded into two sizes - very fine and fine with a maximum width of 9 mm. A maximum of 10% can be outside the size specifications.

Packaging

Both fine and bobby beans are sold either loose in a lidded fibreboard box, 30 cm x 20 cm x 10/15 cm, net weight 2.2 kg, or sold as pre-packs in a similar size box containing 12 x 200 g or 10 x 250 g trays.

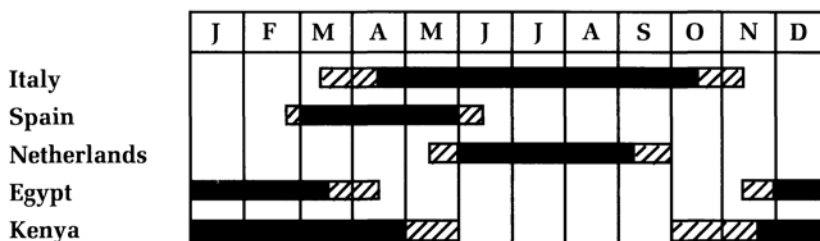
Beans

Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	156	149	N/A
Denmark	N/A	21	35
Norway	N/A	23	24
Finland	N/A	31	27

The market for fresh beans is small and most supplies are imported through intermediate agents in Holland or Germany. Major suppliers for bobby beans are Spain, Italy and Holland during the summer. Kenya supplies most of the fine beans during the winter; the major off-season source for bobby beans is Egypt.



Price

Bobby bean prices for air freighted boxes average \$2.40 per kg during the winter. Fine beans from Kenya during the same period range in price from \$2.50 to \$3.80 per kg, with pre-packed beans obtaining higher price levels around \$5 to \$6 per kg.

Transport

Supplies by air freight are flown into Holland, Germany and France and, as with European produce, are transported by road to their final destination.

Beans

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff numbers 0708 2010 and 2090.

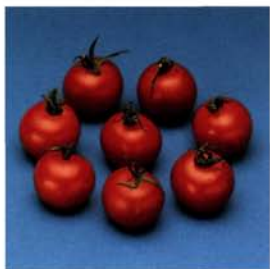
Country	Full	ACP	GSP	LDDC
Sweden				
1 March - 31 December	7%	0%	0%	0%
1 January - 29 February	0%	0%	0%	0%
Denmark				
1 October - 30 June	13%	0%	13%	0%
1 July - 30 September	13%	0%	17%	0%
Norway	0.50 kr/kg	0%	0%	0%
Finland	9%	9%	9%	0%

In both Finland and Norway an import licence is required by the importer to protect domestic production during the summer/autumn period. The licence entitles the importer to specified quantities over a specific period.

Market Summary

The market for fresh beans, both bobby and fine types, is very small in all Nordic countries because of the strong tradition among consumers to use frozen produce. Prices are relatively low and the market is adequately supplied from major importers in Europe. Demand is expected to increase slowly from its present low base as part of a trend towards fresh produce for healthy eating.

Cherry Tomatoes



Varieties: The most popular are Evita and Sweet Israeli types. Varietal development is dynamic; growers need to keep themselves informed about the response in target markets to recent releases.

Description: Cherry tomatoes are smooth-skinned, round, small sized, between 15 mm and 30 mm in diameter, bright red in colour with an attached green calyx. They should have a distinctive sweet juicy flavour with minimum sugar levels of 5.5% brix.

Field harvest

Cherry tomatoes are susceptible to damage which should be minimised by careful hand harvesting followed by primary grading in the field. They are normally harvested at three-quarter ripe stage to develop full flavour during transit. After washing and final grading they should be packed by the grower into plastic punnets.

Post-harvest

Tomatoes should be cooled rapidly after packing. Recommended storage conditions for nearly ripe to ripe fruit are: 8-10°C at RH 90%, for a storage life of 10-14 days. Chilling injury occurs at lower temperatures leading to loss of flavour and shape. Mature green fruits are especially susceptible to injury from low temperatures and are best kept at 13°C. Shelf life at 20°C is two weeks.

Cherry Tomatoes

Grading

Cherry tomatoes are subject to the same quality standards as other tomatoes, see EC No 778/83 amended by Regulation 408/90. The minimum requirements are that fruit should be:

- whole, intact, sound, clean;
- fresh in appearance;
- free of foreign smell or taste;
- free of excess moisture;
- uniformly packaged in terms of origin, variety, quality, size, colour and ripeness.

Two quality classes are defined for cherry tomatoes: 'Extra' class and Class 1.

'Extra' class must be of superior quality, firm and round. They should be free from 'green-backs' and other defects, with the exception of very slight superficial defects which do not affect the general appearance, quality, shelf life and presentation. No more than 5% can fall short of 'Extra' class standards and then not below Class 1 standards.

Class 1 cherry tomatoes must be of good quality, reasonably firm, round and characteristic of the variety. Slight defects in shape, colouring, skin and very slight bruises are permitted, provided that the general appearance, quality, shelf life and presentation are not affected. No more than 10% can fall short of Class 1 standards.

Commercially acceptable sizes range from 10 mm to 30 mm in diameter, depending on variety. Preference is for 15-25 mm. Size uniformity in the punnet is essential.

Packaging

Most cherry tomatoes are pre-packed normally in 250 g plastic punnets either lidded or over-wrapped with micro-perforated film. The addition of 5-10% more is advisable to allow for weight loss in transit. Punnets are usually made of thin clear PVC, manufactured using CFC-free techniques, but recent trends favour coloured paper pulp punnets. The standard box is made of fibreboard with interlocking tabs for vertical stacking, size 40 cm x 30 cm x 8/10 cm, 2 kg net weight, packed with 8 x 250 g punnets.

Supply

There are no statistics specifically relating to cherry tomatoes. Domestic production is significant in Denmark. The Netherlands is the leading

Cherry Tomatoes

supplier during the period April to October. Off-season suppliers are Spain, Israel, Cyprus and Zimbabwe.

	J	F	M	A	M	J	J	A	S	O	N	D
Netherlands			■	■	■	■	■	■	■	■	■	
Spain	■	■	■								■	■
Israel	■	■	■									■
Cyprus	■	■	■	■	■							
Zimbabwe	■	■	■							■	■	■

Price

Prices remain fairly steady throughout the year between \$5.00 and \$6.40 per kg.

Transport

Supplies from Europe are transported by road. Other imports are air freighted either direct to Copenhagen or Stockholm or via Holland or Germany.

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff numbers 0702 0010 and 0090.

Country	Full	ACP	GSP	LDDC
Sweden				
16 April - 15 May	10%	0%	0%	0%
16 May - 31 October	17%	0%	0%	0%
1 November - 15 April	0%	0%	0%	0%
Denmark				
1 November - 14 May	11%	11%	11%	11%
15 May - 31 October	18%	18%	18%	18%
Norway				
1 November - 31 May	0%	0%	0%	0%
1 June - 31 October	2 kr/kg	0%	0%	0%
Finland	10%	10%	10%	0%

In both Norway and Finland the importer requires a licence which specifies quantities during the period mid-May to mid-October.

Cherry Tomatoes

Market Summary

There has been a steady increase in demand in recent years which is expected to continue, consumer purchases being evenly spread throughout the year. As the product breaks through the volume threshold and becomes widely accepted, exporters will have to concentrate on achieving superior taste and presentation to supply an increasingly competitive market.

Mangetout



Varieties: There is a fairly wide range of varieties all selected from edible-podded cultivars of the *Pisum sativum* species. Choice depends on the optimum growing system for local conditions. Most popular are Mammoth Melting, which requires a 2 metre high post and wire trellis system, or open-field dwarf varieties of the Oregon Sugar type. Other names for mangetout are Snowpea or Sugarpea.

Description: In appearance mangetout resemble small immature pea pods, flat, with pea seeds just showing and having a conventional pea shape, length 7-10 cm, width 2 cm, straight with very small stem. Pods are pale to deep green in colour with a juicy, crunchy, sweet taste. Young ripe mangetout should snap easily.

Field harvest

Mangetout require daily hand picking, leaving a short piece of stem on the pod. Accurate picking to the required length and before the pods become over-mature is essential. Harvesting lasts for 3-6 weeks, during which time production builds up steadily to a mid-season peak.

Post-harvest

Harvested pods have an extremely high respiration rate and consequently a very short shelf life. Rapid cooling, grading and packing is essential. Storage conditions, 1-2°C at RH 95%-100% for a storage life of 1-2 weeks; shelf life at 20°C is 3-4 days.

Grading

Minimum standards are specified under EC regulations for beans (which include mangetout) No 58/62 (amendment No 920/89).

Mangetout

There are two classes, Class 1 and Class 2.

Class 1 mangetout must be:

- of good quality, free from blemish except for slight traces of wind damage;
- characteristic of the variety in colour, shape, size;
- young and tender such that they can be easily broken in the hand;
- have small and tender seeds and closed pods;
- stringless;
- no more than 10% can fall short of Class 1 standards and then not below Class 2 standards.

Class 2 mangetout must be:

- of marketable quality;
- reasonably young and tender;
- similar in pod and seeds to Class 1, although seeds may be larger;
- free from disease and frost damage;
- no more than 10% can fall short of Class 2 standard but must meet minimum requirements.

The following are allowed: slight wind damage; minor superficial blemish; strings. Commercial size requirements are for pods 7-10 cm in length and 1-2 cm in width.

Packaging

Mangetout are usually sold pre-packed in weights of 250 g, 300 g or 400 g. The normal method is tray overwrapped with clear PVC but this is being superseded by the recently developed sachet packing into a micro-perforated bag. The standard package is a fibreboard box, fully telescopic with ventilation slots, size 30 cm x 20 cm x 15 cm and net weight 2.2 kg.

Supply

Recent import statistics are shown below (in tons).

Country	1989	1990	1991
Sweden	N/A	N/A	N/A
Denmark	N/A	400	352
Norway	N/A	57	67
Finland	2	2	6

Mangetout

Guatemala is the traditional supplier to Europe but Zimbabwe and Zambia have developed as major new sources over the last five years.

	J	F	M	A	M	J	J	A	S	O	N	D
Guatemala												
Zambia												
Zimbabwe												
Spain												
Nigeria												

Price

Prices average \$3.00 per kg, reducing by 30% during July and August. Peak prices, up to \$4.50 per kg, occur during the off-season from December to March.

Transport

Non-European supplies are exclusively air freighted.

Import tariffs

Rates in percentages ad valorem (except where stated). Tariff number 0708 90.

Country	Full	ACP	GSP	LDDC
Sweden				
1 March - 31 December	7%	0%	0%	0%
1 January - 19 February	0%	0%	0%	0%
Denmark	14%	0%	0%	0%
Norway	0.5 kr/kg	0%	0%	0%
Finland	9%	9%	9%	0%

In both Norway and Finland the importer requires a licence which specifies the permitted quantities over a specific period.

Market Summary

Except in Denmark, consumers are unfamiliar with mangetout because of the long established usage of frozen peas and beans. Steady growth is expected as demand for fresh produce increases, the best potential lying with the catering sector. There is a potential for retail promotion stressing the convenience of mangetout and particularly targeting the growing single-person household sector.

Appendix 1 - Import, Food and Marketing Regulations

Tariffs, import regulations and procedures

Tariffs

Most imported fruit and vegetables enter Nordic countries duty-free under the Generalised System of Preferences (GSP) in favour of developing countries. The exceptions are products which are domestically grown on a commercial scale which are subject to seasonal duties when domestic produce is available. All the fruit covered in this guide have duty free status when imported from most exporters of exotic produce, but the vegetables - cherry tomatoes, french beans, mangetout, asparagus and aubergine - are liable to duty during the summer period, the precise duration of which varies with the importing country and the product. To be eligible for duty-free status the country of origin of the product must be certified on **Form A** made out in English or French. Normally the forms are available from the Ministry of Trade or Chamber of Commerce in the exporting country and the completed form must be endorsed by the approving authority in the country of origin. Under GSP, a country classified as least-developed according to the UN definition has further benefits from duty-free entry for all products and exemption from any quantitative import restrictions that may be applied.

In the case of Denmark, the preferential tariffs available under the Lomé Convention to Africa, Caribbean and Pacific countries (ACP) are more relevant. For most products in the guide (but see separate product sections) these are duty-free and the documentation procedures are simpler than those governing GSP. **Movement Certificate ERU 1**, normally issued by the exporting country's Department of Customs and Excise, is required. If the product being exported is to be routed via Holland, Germany or the UK to Sweden, Norway or Finland or is liable to be re-exported from Denmark, the consignment should also have a Certificate Form A to qualify for GSP treatment. Where an exporter encounters difficulty in obtaining the necessary forms, the importer may be able to help.

Tariff status of Commonwealth horticultural exporting nations from the developing world

Country	ACP	GSP	LDDC	Country	ACP	GSP	LDDC
Antigua and Barbuda	•			Dominica	•		
Bahamas	•	•		Gambia	•		
Bangladesh		•	•	Ghana	•	•	
Barbados	•	•		Grenada	•	•	
Belize	•	•		Guyana	•	•	
Botswana	•	•	•	India	•	•	
Cyprus		•		Jamaica	•	•	
				Kenya	•	•	

Appendix 1 - Import, Food and Marketing Regulations

Country	ACP	GSP	LDDC	Country	ACP	GSP	LDDC
Kiribati	•	•		Solomon Islands	•	•	
Lesotho	•	•	•	Sri Lanka		•	
Malawi	•	•		Swaziland	•	•	
Malaysia	•	•		Tanzania	•	•	•
Mauritius	•	•		Tonga	•	•	•
Nigeria	•	•		Trinidad/ Tobago	•	•	
Pakistan		•		Tuvalu	•		
Papua New Guinea	•	•		Uganda	•		
St Kitts	•			Western Samoa	•	•	•
St Lucia	•			Zambia	•	•	
St Vincent	•			Zimbabwe	•	•	
Seychelles	•		•				
Sierra Leone	•	•					
Singapore		•					

Import licences

With regard to import licences the position differs in each Nordic country as follows:

Denmark: No licences required

Finland: The general principle of licence-free import from countries granted multilateral treatment (most developing countries) is set aside for most fresh fruit and vegetables which come within either or both the global quota programme and the individual licencing system. Under the former, the value of quotas is fixed annually for each product and the importer is issued a licence applicable to any country granted multilateral treatment provided the quota has not been exhausted. Under individual licencing, which is more commonly used, importers applying for a licence are free to select the country of origin from which to import.

Norway: Trade in certain agricultural products is controlled by quantitative restrictions requiring import licences because of the government policy of self-sufficiency in animal and vegetable products that can be produced domestically. The products covered by this guide which are affected are:

- Beans and peas, including mangetout;
- Tomatoes imported between 10 May and 14 October.

Sweden: The general requirement for an import licence for agricultural produce does not apply to products covered by this Guide.

Appendix 1 - Import, Food and Marketing Regulations

Customs Entry

Although the importer, or his forwarding agent, is responsible for obtaining import licences where relevant, customs clearance and payment of any duties and taxes, import charges and handling fees, the exporter must ensure that all necessary documents arrive prior to the cargo. Documents required are:

- Certificate of Origin/Movement Certificate.
- Invoice specifying name and address of exporter and importer, price of each item and any discounts, number, kind and weight of packages and the conditions of payment and delivery.
- Phytosanitary Certificate issued by the plant protection authority in the country of cultivation (see below). Certificates are not required between 1 October and 15 April in respect of:
 - Sweden for tomatoes, aubergines and asparagus;
 - Norway for tomatoes, aubergines and melons.

The Bill of Lading/Airway Bill should contain the name of the importer and his forwarding agent. Fees for phytosanitary inspection and sample testing for foreign substances (see below) are payable by the importer or his agent on customs clearance.

Regulations on agricultural produce

Most fresh fruit and vegetable imports require a Phytosanitary Certificate issued by the plant protection authority of the country of cultivation in accordance with FAO international standards. The exceptions are certain vegetables covered by this guide (see above) imported outside the domestic growing season. Each country has its own authority responsible for enforcing plant protection regulations as follows:

- Denmark** - Ministry of Agriculture, Slotsholmsgade 10, Copenhagen 1216
- Finland** - National Board of Customs, PO Box 512, SF-00101, Helsinki
- Norway** - Norwegian Plant Inspection Service, PO Box 94, OKem, N-0509, Oslo 5
- Sweden** - National Board of Agriculture, Statens Jordbruksverk, S-551 Jonkoping

Shipments are subject to testing, to ensure compliance with international requirements, for which a small fee is payable by the importer (eg Sweden SK 1.15 per 100 kg or minimum fee of SK 15). Consignments are seldom stopped provided exporters observe normal care in growing and post-harvest handling.

Appendix 1 - Import, Food and Marketing Regulations

Food regulations

Quality standards

In each of the countries there is national legislation aimed at protecting and assisting the consumer. Regulations cover food quality, hygiene, handling, packaging and labelling and affect imported fresh produce.

Sweden: The 1971 Food Act is the primary legislation and the National Food Administration (Statens Livsmedelsverk) is the supervisory and regulatory authority. Maximum Residue Levels (MRL) currently for 120 chemicals are listed in the Food Administration's Ordinance on Foreign Substances in Food (SLVFS 1983:1). The NFA works with regional and local authorities who carry out inspections.

Finland: Overall control of produce quality, under the Food Act of 1941 (526.41), lies with the Ministry of Trade and Industry. The Decree on Food Contaminants (755/90), made in 1990, specifies all the relevant MRL's. The Finnish Customs Laboratory is responsible for inspection.

Norway: Aspects of food legislation concerning food safety, public health and consumer protection are co-ordinated by the Norwegian Food Control Authority (Statens Naeringsmiddeltilsyn). The Agricultural Products (Quality) Act contains provisions for MRL control.

Denmark: The National Food Agency administers the Food Act and advises the Ministry of Health on formulating regulations and food issues. The Agency coordinates local inspection work, and serves as the reference laboratory for MRL control within the levels specified in Order No.1 (January 1982) amended in May 1988.

Most importation of fruit and vegetables is carried out by large companies who are also engaged in retail distribution and therefore are well able to ensure that consignments imported meet all requisite standards. Where EC or OECD quality standards have been established for a product, these should be observed by the exporter as they will be the minimum required by importers. These standards are described in the individual product sections of this guide. Many major importers in Europe insist on higher standards which they specify for the product or packaging when placing an order. A significant proportion of small volume imports of exotic off-season vegetables enter the Scandinavian markets via large importers in Holland and Germany (Hamburg). These importers generally supply produce of at least Class I standard to their Scandinavian customers.

Appendix 1 - Import, Food and Marketing Regulations

Treatment by additives

Additives used to preserve, enrich or colour food products can only be used if on an approved list published by the national regulating authority (see above) and within the maximum permitted quantity. The principle of the approval system is that the additive should benefit the consumer or be important for the shelf life of the product and be totally harmless. Any additive used must be marked on the packaging and exporters are advised to check acceptability of an additive substance with their importer if there is any doubt.

Foreign substances

Each of the Nordic countries has legislation regulating the use of foreign substances in food products. 'Foreign substance' means a substance, other than a food additive, which, if present in the food, may be injurious to health or change the normal composition of the food or its quality in other respects. Residues are normally expressed as parts per million (ppm), that is in mg per kg of fresh weight. Regulations stipulate the maximum permitted levels of agro-chemicals (Maximum Residue Levels - MRL), and the types of fruit and vegetables for which individual agro-chemicals are permitted. The regulations cover residues of agro-chemicals used for improving storage as well as during cultivation. Each national regulatory authority or related agency carries out programmes of randomly-sampled laboratory tests to check on compliance and stops the import of any consignment found to have foreign substances exceeding the permitted level. Importers are required to pay a small fee for the random sampling (eg in Sweden SK 1.45 per 100 kg of product with a minimum fee of SK 10.00). Most large importers carry out their own product testing for foreign substances, especially on samples or the first consignments from an exporter. Each national regulatory authority publishes regulations in English on MRL and exporters should ask their importer to supply the latest regulation.

Fruit and vegetables that have been treated with ionizing radiation may not be imported into, or offered for sale in, any of the Nordic countries.

Pre-packaged fruit and vegetables

In each Nordic country, regulations cover the type of packaging material used so as to prevent contamination of food. Provided an exporter, when pre-packing, uses packaging specified by either the importer or prescribed in any EC/OECD regulation, no problems should occur.

Regulations also cover the labelling of the retail packs used for pre-packaged fruit and vegetables. Minimum requirements are as follows:

Appendix 1 - Import, Food and Marketing Regulations

- Name of product in English and/or the national language (except where the cover is transparent);
- Net weight at the time of packing;
- Country of origin;
- Name and location of packer/grower.

All labelling should be clear, easily visible and unambiguous.

Harmonisation

Legislation within the each Nordic country is under extensive review with the planned harmonisation of regulations and the EFTA-EC negotiations for EES arrangements. Although harmonisation of standards within the EC is in progress, member countries (including Denmark) can maintain national legislation until this has been completed.

Guide to Foreign Trade Related Organisations in Nordic Countries

There are many agencies, organisations and associations that exporters may call upon for information and advice. These are summarised below followed by a selection of useful addresses.

International organisations

COLEACP, ITC and the Commonwealth Secretariat are all able to provide market information and assistance in developing exports. EC, OECD and UN/ECE have prepared quality standards for major fruits and vegetables and have a programme for increasing the products covered and introducing amendments as necessary.

Nordic governmental agencies

Each of the Nordic countries has established an import promotion office to facilitate exporters from developing countries market their products.

The **Danish Import Promotion Office (DIPO)** was established in 1977 according to an agreement between the Danish Chamber of Commerce and the Danish International Development Agency (DANIDA).

The **Swedish International Enterprise Development Corporation (Swedecorp)** was established in 1991, as a result of a merger between Swedfund, IMPOD and parts of the Industrial Division of SIDA.

The **Norwegian Import Promotion Office for Products from Developing Countries (NORIMPOD)** was established under the auspices of NORAD, the Norwegian Agency for Development Cooperation.

The **Finnish Import Promotion Office for Products from Developing Countries (PRODEC-IMPORT)** is financed through FINNIDA, the Finnish International Development Agency.

Typically the functions of these offices are to:

- give information on the domestic market and publish guidelines for exporters;
- arrange meetings with local companies for individual exporters and delegations from developing countries;
- offer marketing support to help products from developing countries;

Appendix 2

- organise buying missions to developing countries for local importers and facilitate inward missions;
- publish various market reviews and product fact sheets for assistance to exporters.

Diplomatic missions in Commonwealth countries

The commercial sections of Nordic country diplomatic missions overseas can be a useful starting point for exporters when seeking information about market opportunities and contacts with potential importers and agents.

National statistics offices

These compile and publish extensive statistical data. Exporters may find the information on fruit and vegetables imports to be of special interest.

Private sector organisations

Associations of fruit & vegetable distributors: These national trade organisations, funded by members drawn from the major commercial importers/wholesalers/distributors, aim to represent their members' interests in negotiations with government and international bodies and arrange generic promotion campaigns.

Chambers of commerce: Most major towns in Nordic countries have local chambers of commerce which include among members prominent business enterprises including importers.

National federations of importers, wholesalers and retailers: These associations in each country represent a wide cross-section of importers and distributive trades during discussions with government authorities on items such as business legislation, import regulations, etc.

Marketing Costs

Marketing costs

The actual cost of marketing varies according to country of origin, type and quality of produce and the volume of each consignment. The exporter needs to take account of all costs listed below to calculate whether it is profitable to ship produce to an importer in Scandinavia; that is, will growing and marketing costs be more than covered.

Grower: Packaging and labelling. Transport cost between farm and port of embarkation.

Exporter: Letter of credit (if required);
Export duties (if applicable);
Freight costs;
Customs duty (if applicable);
Insurance costs.

Importer: Commission or margin to the importer;
Customs entry and clearance;
Port handling charges;
Sample fees at port of entry (under Food Acts for MRL and phytosanitary);
Transport to warehouse or packhouse and on to regional depot or storage depot;
Overheads and allowance for wastage and shrinkage.

Retailer: Mark up by retailer.

In either system of selling (fixed price or commission trading, but particularly the latter), it is in the exporter's interest to know prevailing retail prices and margins since his own returns ultimately depend upon the end price. It must be remembered that final retail prices will include allowances for wastage and shrinkage and final packaging and so cannot be readily related to the FOB price paid to an exporter. It is easier for an exporter to work backwards from a wholesale price, as shown in the example below, than from a retail price. Regular price data are available from a number of sources, such as the International Trade Centre (ITC) or COLEACP (See Appendix 2), but these are unlikely to be detailed enough to enable an exporter to make a decision on whether it is worth shipping produce on a day-to-day basis. It is desirable, therefore, to have some independent means of monitoring prevailing prices, both landed and wholesale, in the chosen export market.

Appendix 3

Worked example

The majority of exotic produce is sold on a commission basis under which the importer provides the exporter with transaction details showing the gross wholesale price and a list of deductions to give the net c + f or cif price. The potential exporter will need to estimate the level of deductions likely to be made from a typical sale to establish whether the net price is likely to cover the production and packaging costs as in the example below.

Consignment of 8 pallets of Honeydew melons, in 640 x 10 kg boxes, 80 per pallet, arriving at Rotterdam by sea. The produce is consigned to Helsinki.

Sales	Finnish Makka
510 boxes x F. Makka 48.8 per box:	25,376.00
80 boxes x F. Makka 51.0 per box:	4,080.00
25 boxes x F. Makka 41.7 per box:	1,042.50
15 boxes (unripe and not sold):	0.00
	<hr/>
Gross wholesale value (540 boxes):	30,498.50
Less commission at 10% of gross sales:	3,049.80
	<hr/>
Total net sales:	27,448.70
Less expenses:	
Freight charges (Rotterdam to Helsinki)	5,361.00
Insurance	31.00
Port handling costs	375.50
Inspection survey (customs)	1,350.00
Administration/tariff fees	228.00
	<hr/>
Total expenses	7,350.50
	<hr/>
Return to exporter (delivered Helsinki)	20,103.20

Average value of produce sold, Finnish Makka 3.22/kg.or \$0.74/kg.

Useful Addresses

INTERNATIONAL ORGANISATIONS

COLEACP

5 rue de la Corderie
Centra 342
94586 Rungis Cedex
France

Tel: 33 1 468 70206
Fax: 33 1 468 63315

Offers trade information, trade promotion and technical assistance to ACP fruit exporters.

International Trade Centre

UNCTAD/GATT
54-56 rue de
Montbrillant
1202 Geneva 10
Switzerland

Tel: 41 22 34 60 21
Telex: 289466 MNS
CH (for news service)

Transmits market information on fresh horticultural products through Market News Service (MNS), helps exporters with contacts, provides export packaging and other advisory services.

Food Standard Officer

FAO/ECE Agriculture
& Timber Division
United Nations
Economic
Commission for
Europe
Palais des Nations
Ch-1211
Geneva 10
Switzerland

Tel: 41 227 346011

Seeks to produce agreed international standards. Currently working on mangoes, pineapples and papaya.

OECD Standards Officer

OECD
2 rue Andre Pascal
F 75775
Paris Cedex 1, France

Responsible for OECD standards for fresh fruit and vegetables.

Confederation of Importers and Marketing Organisations in Europe of Fresh Fruit and Vegetables (CIMO)
Bte 4, 1200 Brussels
Belgium

Tel: 32 2 771 36 35
Fax: 32 2 762 94 25

NORDIC GOVERNMENT INFORMATION SOURCES AND ORGANISATIONS

SWEDEN

Swedish International Enterprise Development Corporation (SWEDECORP)

(Styrelsen for
Internationellt
Naringslivbistand)
Box 3144
Luntmakargatan 46
S-103 62 Stockholm

Tel: 46 8 677 66 00
Fax: 46 8 24 92 90

Board of Customs (Generaltullstyrelsen)

Box 2267
S-103 17 Stockholm

Tel: 46 8 789 73 00
Fax: 46 8 20 80 12

National Food Administration (Statens Livmedelsverk)

Box 622
S-751 26 Uppsala

Tel: 46 18 17 55 00
Fax: 46 18 10 58 48
Telex: 76121 slvups s

Appendix 4

**The Swedish Board
of Agriculture
(Statens
Jordbruksverk)**
S-551 82 Jonkoping

Tel: 46 36 15 50 00
Fax: 46 36 19 05 46

**Statistics Sweden
(Statistiska
Centralbyran)**
S-115 81 Stockholm

Tel: 46 8 6783 40 00
Fax: 46 8 661 52 61
Telex: 15261 swestat s

DENMARK

**Danish Chamber of
Commerce**
DK-1217 Copenhagen

Tel: 45 33 91 23 23
Fax: 45 33 52 16
Telex: 19520 chamco
dk

**The Danish
International
Development Agency
(DANIDA)**
Asiatisk Plads 2
DK-1448 Copenhagen K

Tel: 45 33 92 00 00

**Ministry of Health
National Food
Agency of Denmark**
Morkhoj Bygade 19
DK-2860 Soborg

Tel: 45 31 69 66 00

Inter Coop
Vester Farimagsgade 1
DK 1606, Copenhagen

Tel: 45 33 15 15 33

Denmark Statistics
Sejrogade 11
DK-2100 Copenhagen

Tel: 45 31 29 82 22

NORWAY

**Norwegian Agency
for Development
Cooperation (NORAD)**
P O Box 8189 Dep,
N-0034 Oslo 1
Office: Tollbugt 31

Tel: 47 2 31 44 00
Fax: 47 2 31 44 01

**Norwegian Import
Promotion Office
for Products from
Developing Countries
NORIMPOD**
PO Box 8034 Dep,
N-0030 Oslo 1
Office: Tollbugt 31
Oslo 1

Tel: 47 2 31 44 00
Fax: 47 2 31 44 03

**Directorate of
Customs and Excise**
P O Box 8122 Dep, N-
0032 Oslo 1
Office:
Schweigaardsgt. 15

Tel: 47 2 17 71 00
Fax: 47 2 42 25 90

**Central Bureau of
Statistics**
PO Box 8131 Dep,
N-0033 Oslo 1
Office: Skippergt. 15

Tel: 47 2 41 38 20
Fax: 47 2 33 32 64

**Ministry of
Agriculture**
PO Box 8007 Dep,
N-0030 Oslo 1
Office: Akersgt. 42

Tel: 47 2 34 90 90
Fax: 47 2 34 95 55

FINLAND

Prodec-Import
Simonkatu 12 A
SF-00100 Helsinki
Finland

Tel: 358 0 4313 383
4313 385
Fax: 358 0 685 1037

**National Board of
Customs**
International Section
P O Box 512
SF 00101 Helsinki

Tel: 358 0 61 41
Fax: 358 0 61 42 764
Telex: 121559 tulhs sf

Appendix 4

National Board of Customs

Customs Clearance
Section

Ratakatu 1 b A
SF-00120 Helsinki

Tel: 358 0 61 42 613

Customs Laboratory

Tekniikantie 13
SF-02150 Espoo

Tel: 358 0 45 50 311

Fax: 358 0 46 33 83

Telex: 123961 tulab sf

Prodec-Import

Toolonkatu 11 A
SF-00100 Helsinki

Tel: 358 0 4313383

4313386

Fax: 358 0 407252

Import and Export Permits Office

P O Box 116
SF 00181 Helsinki

Tel: 358 0 69 49 055

Central Statistical Office of Finland

P O Box 504
SF-00101 Helsinki

Tel: 358 0 17341

PRIVATE SECTOR FRUIT AND VEGETABLE ASSOCIATIONS

**Sveriges Frukt-Och
Gronsaksdistributörer
(SFG)**

**Swedish Association
of Fruit and
Vegetable
Distributors**

Grevgatan 34
Box 5512
S-11485 Stockholm
Sweden

Tel: 46 8 666 11 00

Fax: 46 8 667 80 51

Telex: 19673

**Norges Frukt - og
Gronnsaksgrossisters
Forbund**

**Norwegian
Association of fruit
and vegetable
wholesalers**

Box 157, Okern
0509 Oslo 5, Norway

Tel: 47 2 65 03 75

Fax: 47 2 63 19 24

**Foreningen AF
Frugtimportører 1
Danmark**

**Fruit Importers
Association of
Denmark**

Grønttorvet 232 242
DK-2500 København
Valby, Denmark

Tel: 45 1 30 61 11

Telex: 22302

The Federation of Finnish Wholesalers and Importers

Mannerheimintie 76A
POB 150

SF-00251 Helsinki
Finland

Tel: 358 0 441 651

Fax: 358 0 496 142

INTER-NORDIC PURCHASING ORGANISATIONS

Nordisk

Andelsforbund (NAF)

Veter Faringsgade 1
DK-1606
Copenhagen V
Denmark

Viking Fruit AB

Box 36006
40013 Gothenburg
Sweden

Tel: 46-31-840275

Fax: 46-31-841073

IMPORTERS/ WHOLESALEERS

SWEDEN

SFI Stockholms

Frukthimport AB

Uppkopparvägen 7
Box 9065
S-121 09 Johanneshov
Stockholm

Tel: 46 8 91 02 10

Fax: 46 8 91 65 60

Telex: 13305

Appendix 4

KF Handel AB

Fresh Fruit
Department
Uppkopparvrgen 7
Arsta
Box 15200
S-104 65 Stockholm

Tel: 46 8 81 00 80
Fax: 46 8 81 91 22
Telex: 19449 kffogs

KF Handel AB

Vegetables/Flowers
425 035
PO Box 50
S-201 20 Malmo

Tel: 46 40 28 52 62
Fax: 46 40 18 71 45
Telex: 32290 kffcmas

ICA Frukt & Gront AB

Landskronavagen 33
PO Box 713
S-251 07 Helsingborg

Tel: 46 42 18 90 00
Fax: 46 42 26 29 12

Olsegard AB

Rannarbanan 12
S-252 29 Helsingborg
Tel: 46 42 12 61 30
Telex: 72105

DENMARK**FDB Purchasing
Department**

Fruit and Vegetables
Roskildevej 65
DK-2620 Albertslund

Tel: 45 42 64 88 11
Fax: 45 42 64 20 55
Telex: 33313-FDBFG

**Dansk Suprmarked
Indkob A/S**

Bjodstrupvej 18
DK-8270 Hojbjerg

Tel: 45 86 27 55 66
Fax: 45 86 27 67 32

**Th. Olesen
Fruit & Vegetable
Imports**

Gronttorvet 232-242
DK-2500 Valby

Tel: 45 1 30 61 11
Telex: 22302

Interfrugt A/S

Groentorvet
No 212
DK-2500 Valby
Copenhagen

Tel: 101 45 36 30 33 22
Fax: 010 45 31 16 90 16

Bdr. Lembcke

Groentorvet
No 226
DK 2230 Valby
Copenhagen

Tel: 010 45 36 30 38 22
Fax: 010 45 36 44 09 89

**Maersk
Reefer Container
Line**

A P Moller
50 Esplanaden
DK-1098
Copenhagen K

Tel: 45 33 14 15 14
Fax: 45 33 14 15 15

NORWAY**NKL**

The Norwegian
Cooperative Union
and Wholesale
Society Food Division
Ostre Aker vei 264
0977 Oslo 9

Tel: 47 2 89 98 11
Fax: 47 2 161 53 95
Telex: 76132

**AL Gartnerhallen
Import A/S**

Import Head Office
P O Box 111 Okern
N-0509 Oslo 5

Tel: 47 2 72 70 00
Fax: 47 2 63 09 23
Telex: 71 263 ghkhn

Bama Trading A/S

P O Box 65 Okern
N-0508 Oslo

Tel: 47 2 64 42 90
Fax: 47 2 65 17 79
Telex: 71382 Bama n

**Berhn. Botolfsen
Import A/S**

Box 242 Okern
N-0510 Oslo 5
Okern tog/
Transithallen 1

Tel: 47 2 64 13 30
Fax: 47 2 64 36 67

Appendix 4

Interfrukt A L

Okern Torg.
Transitthallen
P O Box 243 Okern
N-0510 Oslo t

Tel: 47 2 64 53 60
Fax: 47 2 63 14 28
Telex: 78501 unfiu N

FINLAND

KESCO Limited

Fresh Foods
Satamakatu 3
SF-00160 Helsinki 16

Tel: 358 0 198 27 71
Fax: 358 0 175 570
Telex: 121635 kfku sf

TukoSpar Oy

Fresh Products
Sompasaari
P O Box 52
SF-00581 Helsinki

Tel: 358 0 619 66 01
Fax: 358 0 619 61 77
Telex: 122469 tuko sf

INEX Partners Oy

Fleminginkatu 34
P O Box 154
SF-00511 Helsinki

Tel: 358 0 188 47 05
Fax: 358 0 188 46 80
Telex: 126006 inxf sf

EUROPE

FTK Holland BV

Klappoldar 191-193
2665 MP Bleiswijk
Holland

Tel: 31 1892 417 00
Fax: 31 1892 196 16
Telex: 22593

Budd Holland BV

Postbus 8 NL 2600 AA
Delft, Holland

Tel: 31 15 690 690
Fax: 31 15 622 790

Agrofresh BV

Marconi Straat 3-11
3029 AE Rotterdam
Postbus 6076
3002 AB, Rotterdam
Holland

Tel: 31 10 425 32 88
Fax: 31 10 476 03 97
Telex: 26119

Trofi- Tropenfruchtimport GmbH

Lippeltstrasse 1
2000 Hamburg 1
Germany

Tel: 040 33 55 96
fax: 040 32 75 49
Telex: 2173211 trof d

Exotic Fruchtimport GmbH

Lippeltstrasse 1
2000 Hamburg 1
Germany

Tel: 040 33 53 17
Fax: 040 32 75 49
Telex: 2173211

Internationale Fruchtimport Gesellschaft Weichert & Co

Fruchthof
Hamburg 1
Germany
Tel: 040 33 12 41
Fax: 040 33 60 83
Telex: 335730



Commonwealth Secretariat
Marlborough House, Pall Mall, London SW1Y 5HX
Phone: 071 839 3411 Fax: 071 930 0827 Telex: 27678

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