

Guidelines for exporters of cut flowers to the German market



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

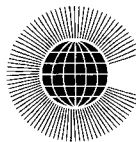


**Commonwealth Secretariat
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Guidelines for exporters of cut flowers to the German market

Prepared by the Commonwealth Secretariat's
Export Market Development Division and funded by the
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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Contents

	Page
INTRODUCTION	3
THE NATURE AND STRUCTURE OF THE MARKET	4
The Nature of the Market	5
Reunification and Demand	5
Imported Cut Flowers and Ornamental Foliage	6
Produce Retailing	8
Marketing Channels	10
SERVICING THE MARKET	13
Where to Send the Products	13
Working with German Importers	14
Terms of Trade	15
Packaging	17
Transportation	18
Trends in Produce Sales	18
Promotion and Branding	19
Starting an Export Business to Germany	19
PRODUCTS	21
Introduction	21
Roses	22
Carnations	28
Chrysanthemums	35
Gypsophila	40
Summer Flowers.....	44
Alstroemeria	49
Gladiolus	53
Irises	57
Lilies	60
Exotic Bulbs and Corms	64
Anthurium Andreanum	68
Heliconia Species	72
Orchids	76
Protea Species	80
Ornamental Foliage	83
<u>APPENDICES</u>	
APPENDIX 1 - EC COMMON QUALITY STANDARDS FOR FRESH CUT FLOWERS AND FOLIAGE	87
APPENDIX 2 - PHYTOSANITARY REQUIREMENTS	92
APPENDIX 3 - CUSTOMS TARIFFS	97
APPENDIX 4 - USEFUL ADDRESSES	99
APPENDIX 5 - GENERAL GUIDELINES ON HARVESTING, POST-HARVEST HANDLING AND TRANSPORT OF FRESH CUT FLOWERS AND ORNAMENTAL FOLIAGE	103
APPENDIX 6 - MARKET INFORMATION AND COST CALCULATION	107
APPENDIX 7 - HANDLING COMPLAINTS	109
APPENDIX 8 - CONDITIONS OF SALE FOR THE INTERNATIONAL WHOLESALE TRADE IN CUT FLOWERS, FRESH FOLIAGE AND ORNAMENTAL PLANTS	111

Introduction

These guidelines address basic questions which exporters of cut flowers and ornamental foliage will need answered before they try to venture into the difficult and demanding German market.

Successful marketing involves:

- **Identifying the market demands** for floricultural products with respect to; assortment, produce quality, cropping seasons and packaging.
- **Understanding the legislative regulations** and the need for market servicing.
- **Supplying those demands at a profit.**

This handbook provides the exporter with basic information on the German market and identifies where more detailed information can be obtained. However, consumer preferences may change rapidly, and may also be influenced by market promotion and produce quality. The prospective exporter should study the market and its potential before venturing into a cut flower and/or ornamental foliage project.

This is the fifth of a series of practical handbooks published by the Export Market Development Division of the Commonwealth Secretariat. It has been written in response to requests from exporters and exporting countries for overall information on the German market for cut flowers and ornamental foliage.

The handbook has been divided into three sections:

The first provides:

an overview of the market covering market channels, market size, products, packaging and terms of business. This section will help the exporter to **identify potential outlets** and **service the market.**

The second concentrates on:

individual groups of cut flowers and ornamental foliage. The varieties have been selected both because they are suitable for export by grower exporters in the Commonwealth and because they are well established on the German market. Each product section provides **information relevant to production** and basic product requirements, such as variety, appearance, timing and also information about **postharvest handling** such as grading, packing, storage etc. Finally it reviews the **German market** and sets out phytosanitary and quality requirements and tariff information.

The third contains:

appendices providing information on procedures, addresses of organisations and importers, advice on handling complaints, sources of price and market information and a draft contract between exporters and German importers.

— The Nature and Structure of the Market —

Map of the Unified Germany



KEY

Major markets ● Auction markets **A**

Markets ●

Major international airports (airplane in circle)

International airports (airplane)

Seaports (ship icon)

The Nature of the Market

The German market appears very attractive to most exporters. It is by far the largest market in the world for imported cut flowers and ornamental foliage, and imports about 80% of its requirements. The consumers are amongst the most wealthy in Europe with a per capita spending on floricultural products of about DM 150 per year (before the reunification). After reunification Germany has the largest population, nearly 80 million people, of any European Community (EC) member. It is, however, a highly competitive market, and the importers are well informed of international price fluctuations and market movements.

Cut flowers from overseas suppliers are mainly landed at the airports at Frankfurt and Düsseldorf because of the excellent air connections for both scheduled and chartered flights. The major variety of ornamental foliage, Leatherfern, is transported in reefer containers by sea. This has made Hamburg a major distribution point for all ornamental foliage. Containers are also landed in Bremen, Antwerp and Rotterdam.

Supply to the German market is dominated by Dutch exporters but direct imports from overseas suppliers are also substantial. The German market represents about 50% of the total exports of cut flowers from the Netherlands. A large share of these exports are sold by the so called 'Flying Dutchmen', who supply directly to German retailers and/or wholesalers daily.

It is not easy to break into the German market. It is certainly not a market for single shipments, for disposing of temporary surplus quantities or for second rate produce. It is a buyer's market for most products. The wholesalers are well organised and well informed. Exporters should seek long term business relationships with serious and qualified German importers and then work at maintaining and developing these relationships.

Reunification and Demand

The reunification of Germany increased the population by about 25% to almost 80 million people. This has influenced the demand for cut flowers and ornamental foliage significantly, especially for varieties previously unknown in Eastern Germany. However, the demand pattern has changed after the initial euphoria and adjusted to the financial realities of families in Eastern Germany. In the short term consumers in the former East Germany are expected to be very interested in species which cannot be grown in

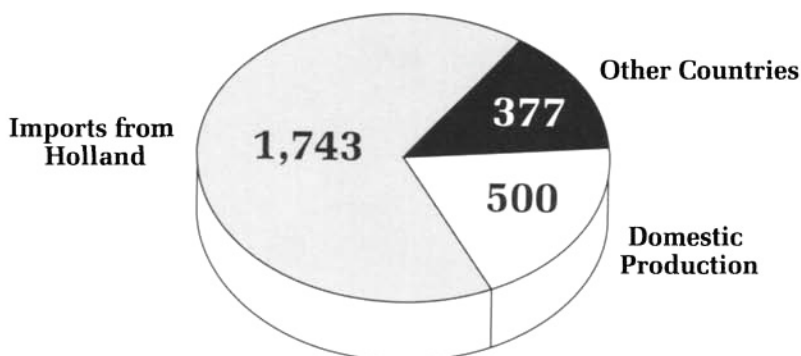
— The Nature and Structure of the Market —

northern Europe such as Heliconia, Alpinia, tropical orchids etc., and also in off-season flowers. In the long term these consumers will adjust to the traditional assortment of cut flowers being marketed in the former West Germany and upgrade their quality requirements. The sales organisations in the former East Germany have more or less collapsed. Major German importers and Dutch exporters are establishing depots or joint venture enterprises with the new private sector in Berlin for distributing cut flowers and ornamental foliage. The process is proving to be rather slow. The 'Flying Dutchmen' are expected to have less impact on this market than those in some other parts of Germany, due to its distance from the Netherlands.

Imported Cut Flowers and Ornamental Foliage

The major supplier of floricultural products to the German market is the Netherlands, which accounts for more than 85% of the total imports of cut flowers, followed by Italy and Israel. Ornamental foliage is mainly imported from USA, followed by Costa Rica and Italy. Germany is also importing cut flowers and ornamental foliage from more than 25 other countries all over the world.

FLORICULTURAL MARKET IN MILLIONS OF DM



The total German market for cut flowers and ornamental foliage is valued at DM 2.6 billion, which corresponds to a retail value of about DM 7 billion. Even a small percentage of such a huge market represents important export volumes. Domestic production of cut flowers and ornamental foliage amounted to only DM 500 million in 1991, while the imports of cut flowers amounted to DM 2,033 million in 1991 (an increase of 22.3% from 1990), and ornamental foliage to DM 87 million in 1991 (an increase of 25.2% from

———— The Nature and Structure of the Market ————

1990). The high growth rates of the imports of cut flowers and ornamental foliage are the result of reunification, coupled with decreasing domestic production.

Dutch exporters dominate the market because:

- they can offer a full assortment of cut flowers and ornamental foliage all year round,
- German importers can buy what they need directly at the auctions in the Netherlands. Handling is very easy and since they can buy daily, there is no need to store flowers for more than one or two days and risks are reduced,
- the so called 'Flying Dutchmen', who deliver or sell directly from their trucks, with or without preorders, are very convenient for the German retailers. These exporters often stock a full assortment of cut flowers and ornamental foliage.

Tropical production of temperate, subtropical and tropical cut flowers and ornamental foliage for export was originally started to:

- increase the assortment by the addition of new products which could not, for climatic reasons, be produced in the greenhouses of northern Europe,
- prolong the season for many species which, due to cold and low light, did not produce adequate market quality in the northern European winter,
- decrease the production costs for many species by eliminating the need for heating, low labour costs, low investment costs, etc.

These reasons are still valid and it is expected that an increasing amount of cut flowers and ornamental foliage will be produced in tropical countries in the future. However, the profitability of a cut flower/ornamental foliage export enterprise is highly dependent upon regular and competitive air freight. Sudden changes of schedules and/or air cargo rates may affect the viability of a project dramatically.

The assortment of cut flowers and ornamental foliage can be divided into two groups:

Large volume species

Roses
Gypsophila
Carnations
Chrysanthemums
Summer flowers
Asiatic lilies
Alstroemeria
Gladiolus
Tropical orchids
Leatherfern

Speciality species

Heliconia sp.
Protea sp.
Ornithogalum
Lilium longiflorum
Anthurium
Iris
Nerine
Assorted ornamental foliage
Liatris

— The Nature and Structure of the Market —

The large volume species can be produced in comparatively large quantities and are often produced by major exporters as single varieties. The speciality species are more sensitive to large volume production. Large scale producers either have to supply several different markets or produce a wider assortment of flowers. This is generally necessary in order to benefit from the most preferential cargo rates which come into force for shipments of at least 500 kg.

In general the supply of imported cut flowers and ornamental foliage is low in the summer, i.e. June to September, and higher in the winter i.e. October to May. Peak sales occur before holidays and festivals such as All Saints Day (1 November), Commemoration of the Dead (2nd half November), Christmas, Valentine's Day (14 February), Easter week and Mothers' Day (2nd Sunday in May). For Christmas and Valentine's Day, red flowers are popular, whereas yellow flowers are in demand for Easter and white flowers are typically used for church festivals. However, there is a trend towards more regular sales with less pronounced peak sales periods.

German consumers are very receptive to novelty products e.g. new colours, new shades or new shapes of flowers within the traditional assortment as well as completely new species. Species that are rarely seen in other European countries are common in German flower shops, for example, Heliconia and Alpina.

The best opportunity for large exporters venturing into the German market is to supply the major importers. This enables the exporter to distribute large volumes. Medium to small size exporters should make contact with smaller importers if they produce an assortment of cut flowers and/or ornamental foliage or small volumes of a single variety. A list of importers is given in Appendix 4.

Produce Retailing

Flower retailing in Germany has changed significantly since the 1960s. Floricultural products were sold exclusively in flower shops, at the municipal markets or by street vendors. Since then food stores, supermarkets and garden centres have introduced cut flowers and foliage into their range. These new market channels were very successful in the 1970s and 1980s and the traditional flower shops' market share fell to about 70%. Currently the market share of the food trade is static and it is the garden centres and street vendors whose share is increasing.

The Nature and Structure of the Market

CUT FLOWERS AND ORNAMENTAL FOLIAGE			
Retail outlets	Market shares		
	1980	1990	
Flower shops	75%	70%	
Garden centres	-	3%	
Market and street vendors	15%	16%	
Food trade etc.	6%	11%	
Others	4%	-	

Flower Shops and Garden Centres are generally independent retailers who purchase their products from the wholesale market and from domestic producers. There are about 14,000 specialist flower retailers in Germany (excluding the former East Germany). They usually offer a wide range of high quality cut flowers and ornamental foliage which is often more attractively displayed than in, for example, food stores. Generally they charge premium prices for their product quality coupled with their floricultural skills. They provide specialist services to their customers such as making and delivering bouquets, flower arrangements, wreaths, funeral decorations, etc. They also give advice on how to maintain the products at home. These retailers are generally more open-minded and more prepared to accept and appreciate novelties than other retail outlets. About two thirds of the flower shops are linked to a flower agency (e.g. Interflora, Fleurop), which enables the customer to have flowers delivered to people nationally and internationally via shops linked under the same system.

Market and Street Vendors' sales are mainly generated by impulse purchases especially as prices are often very competitive. They rarely sell a full range of cut flowers and ornamental foliage, but an assortment made up from what was available at low prices on that particular day. Their flowers are often more mature and have a shorter vase life than those from the specialist retail trade. These vendors play an important role in distributing the surplus quantities from the wholesale trade.

Supermarkets, Department Stores and Food Stores offer a wide range of products, among which cut flowers and ornamental foliage have become quite important. Their market share increased rapidly during the last two decades but is now static. They use large and attractive displays to tempt a customer into an impulse purchase. To reduce the cost of maintenance and waste, the assortment of flowers on sale in these outlets is usually limited. Ready-made bouquets are of special interest and provided pre-packed and ready for sale by wholesalers. The quality and variety of pre-packed bouquets has improved significantly and there are several enterprises who specialise in their production. The supermarkets, department stores and food stores operate at lower profit margins than the specialist florists.

— The Nature and Structure of the Market —

Marketing Channels

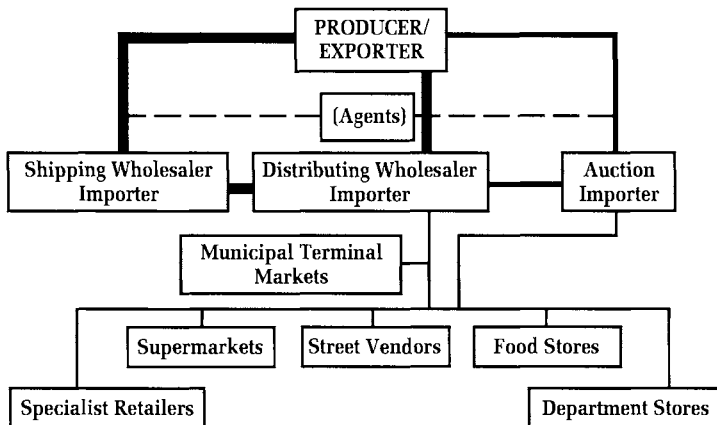
The structure of the trade channels for cut flowers and ornamental foliage in Germany can be divided into three segments:

- Producers' sales co-operatives
- Agents
- Shipping and distributing wholesalers

Only a small percentage of the cut flowers and ornamental foliage distributed is sold at the flower auctions in Germany. The major volume is distributed either by German wholesalers or by Dutch exporters directly to the retail trade. The major importers/wholesalers in Germany are very large enterprises. They will attempt to control the flow of cut flowers and ornamental foliage into the German market and air cargo space from some parts of the world.

Germany has a dense network of terminal wholesale markets to distribute floricultural products. The largest terminal wholesale markets are Hamburg, followed by Berlin, Düsseldorf and Cologne. Distributing wholesalers and growers sell both imported and domestic products at these markets to flower shops, supermarkets, street vendors etc. Prices are, in general, 15% higher than auction prices, but the wholesale market is more convenient for the retailer. The importance of these markets has declined during the last decade due to competition from Dutch distributing wholesalers/exporters and declining domestic production.

The following diagram provides a schematic view of the major market channels through which directly imported cut flowers and ornamental foliage from overseas suppliers are distributed on the German market:



— The Nature and Structure of the Market —

Shipping wholesalers and distributing wholesalers are both importers and wholesalers, but they have different areas of operation:

A **shipping wholesaler** sells mainly to other wholesalers and distributes cut flowers and ornamental foliage to the whole German market. This involves handling large quantities of produce. They generally only sell whole cartons of each variety or grade, and avoid unpacking or handling the products in water. These are medium to very large enterprises, often with a world-wide network of supplier contacts and access to very detailed market information. Shipping wholesalers will import flowers directly from the Netherlands and/or from overseas suppliers. They are not likely to buy products from other importers or agents. Some products will be purchased at the auctions in Germany and direct from German producers. These enterprises represent the most important market channel for large to medium sized exporters, especially for large volume products. Shipping wholesalers are also important for exporters of speciality products, especially if the exporter has a comparatively large production and wants to reach most of the German market through one importer.

A **distributing wholesaler** sells mainly to the retail trade e.g. flower shops, food stores, street vendors, etc. They handle smaller quantities of flowers than the shipping wholesalers. Products are bought from domestic producers or shipping wholesalers, or by importing from the Netherlands or directly from overseas exporters. They are not likely to handle large quantities of any of the major varieties of cut flowers and ornamental foliage. They may specialise in one or several of the speciality species, in which case they may be able to handle comparatively large quantities of these and even distribute them to the shipping wholesale trade. A distributing wholesaler usually handles the products in water, if appropriate, and often offers a full assortment. Distributing wholesalers are, in general, medium to small size enterprises. They are much less important for overseas exporters than the shipping wholesalers except when they handle speciality products and for smaller exporters. Distributing wholesalers are more inclined to introduce novelties to the market.

Wholesalers/importers in Germany like to maintain close and direct contact with their suppliers. They will make regular visits to discuss varieties, quality, grading, packaging, post-harvest handling, shipping schedules etc. Prices are agreed for periods of 1-3 months in advance.

Wholesalers/importers are usually located close to a major market. Sales are generally made by telephone or fax, although some additional sales may be made at a terminal market or direct to retailers from refrigerated trucks. Some wholesalers specialise in certain products e.g. tropical orchids, tropical exotics, ornamental foliage etc. Wholesalers/importers trade either in cut flowers and/or ornamental foliage or in pot plants, and these products are

—— The Nature and Structure of the Market ——

rarely mixed. Nearly all wholesalers import cut flowers and/or ornamental foliage, and there is an interest amongst them to develop new contacts, especially from new production areas overseas.

Agents are not very common in Germany for cut flowers and ornamental foliage. Where present, they act as an intermediary between the exporter and the importer. They do not trade products on their own account. They maintain contacts with foreign suppliers and procure produce for their customers, who are generally wholesalers. Agents work on a commission of the sales price.

Producers' sales co-operatives (auctions) sell cut flowers and ornamental foliage on behalf of domestic producers, importers and foreign producers/exporters. There are a number of flower auctions in Germany, the major ones being UGA in Niederhein and NBV in Neuss. Buyers are distributing wholesalers, retailers, multiples (supermarkets etc.) and street vendors. The majority of imported produce sold at these auctions is supplied by Israel.

German wholesalers/importers have a keen interest in establishing contacts with new exporters from overseas countries and they have a significant interest in new products and new production areas.

Where to Send the Products

The final choice of market contact(s) for the exporter depends to a large extent on what quantity he intends to export, which assortment and what quality he can produce and whether he is inclined to work with one major importer or two or more smaller importers.

A small exporter is recommended to establish a long term business relationship with a minimum of two distributing wholesalers, especially if he is producing a standard assortment of good export quality. If he is producing a speciality product e.g. Heliconia, he may have to export either to several distributing wholesalers in various geographical areas, or to one shipping wholesaler to sell the whole quantity. The choice often depends on whether the exporter can supply sufficient quantity to each customer to benefit from the lowest air cargo rates. The exporter may obtain a higher price from the distributing wholesaler than from the shipping wholesaler, but their capacity is usually limited and the company may be less secure financially because of the size of operation and the absence of assets e.g. in buildings etc. It is the responsibility of the exporter to chase up payments, and, should delays occur, to discuss the situation with his customer. (See Appendices 7 and 8).

Distributing wholesalers are generally more amenable to prolonged import seasons than the large import enterprises, especially if the exporter has a unique quality or assortment and if there is a good relationship between the two companies.

A medium size exporter may choose to export his produce either to several distributing wholesalers or to one shipping wholesaler depending on the volumes and the assortment he is producing and on how much marketing he is prepared to do. Exporting directly to several distributing wholesalers will probably result in a higher average price and spread the payment risks. It will also entail additional costs for a sales organisation within the exporting enterprise and for handling smaller volumes. If the exporter has produce of unique quality and/or a unique assortment, a shipping wholesaler may contract his total production for a whole season and at premium prices. The market is, however, very competitive and if either the contracted price or the quality or the assortment proves to be wrong at a specific time the importer is likely to renegotiate the contract.

Well organised and large exporters who can ensure regular supplies of well packed, high quality produce should only consider dealing with the major shipping wholesalers. Depending on the volume they have to export it may be necessary to seek market contacts at this distribution level in other

Servicing the Market

countries as well in order to secure a market for the whole production and for as long a season as possible. The major shipping wholesalers often sell the produce before arrival or on supply contracts. It is therefore extremely important to adhere to pre-arranged volumes and schedules.

Most exporters of cut flowers and ornamental foliage are also the producers. It is not common to collect produce from outgrowers and export through a middleman. This system does exist for some products, especially from Kenya, and also for assorted ornamental foliage collected from the wild. Exporters may choose to sell a portion of their production through an auction, either in the Netherlands or in Germany, to compare prices and market information. Different brand names should be used when selling through both auctions and importers or the exporter may disrupt his regular wholesale market.

Whichever market channel is chosen, it is the exporter's responsibility to identify the market channel(s) and convince the importer(s) that his cut flowers and/or ornamental foliage are worth buying. It is a highly competitive trade, but the importers are usually keen on new exporters and new products. The exporter who identifies the most suitable market channel(s) for his produce will also have the best assistance with his initial market entry.

Working with German Importers

German importers are looking for exporters who can regularly supply sufficient volumes of an attractive range of cut flowers and/or ornamental foliage of high quality and who can adjust, as far as possible, to the seasonal variations in market demand. Preference is given to countries with a good infrastructure and to exporters who can constantly abide by their commitment to reliability, quality and regularity. Importers are most comfortable working with people who are directly responsible for quality control and regularity. Good personal relations between the importer and the exporter are essential when building a long standing business relationship and overcoming temporary difficulties.

Servicing the Market

The following are common complaints about exporters:

- They often fail to alert either the importer or the clearing agent to the arrival of a shipment. This is extremely serious for highly perishable products since prompt notification may save up to one day in handling.
- They omit important paper work such as a phytosanitary certificate or certificate of origin.
- The export produce is too mature or has been harvested prematurely or it has been stored wrongly or for too long.
- The wrong packing material has been used which may result in damaged cartons and bruised produce, poor presentation, damaged produce due to condensation in plastic sleeves etc.
- The export products do not meet market expectations for quality, grading and freshness, or they deviate too much from EC quality standards.
- The produce is infested with fungus disease and/or insects, or has too high a pesticide residue.
- The exporter does not comply with scheduled deliveries.

There are EC regulations for phytosanitary and quality standards. However, the quality standards are applied liberally and the most important factor is that the exported produce should comply with the expectations of the importer and market demands.

Terms of Trade

There are a number of different types of buying agreement. The most common are described below (see also Appendix 7 where the contractual terms recommended by the German Wholesalers Association are set out):

Firm purchase is the most common agreement for imports of cut flowers and ornamental foliage. A fixed price, either FoB or C&F, is agreed between the exporter and importer prior to export. Such an agreement should also incorporate terms of payment, volumes, assortment etc. Prices and market demand will change for all floricultural products. Prices are therefore fixed for short periods of 1-3 months, depending on the species and the season.

Servicing the Market

Bank guarantees, letters of credit etc. are unusual as produce is perishable. Normally the importer should pay for the shipment 15-30 days after receipt of the produce. The payment is by bank draft or bank transfer. The importer is responsible for paying any import duty, import taxes and clearing costs as well as all other costs incurred in the country of destination. The exporter should aim to export produce on FoB terms to avoid incurring air cargo costs. When air cargo rates are less expensive when paid in the country of origin, the exporter should send C&F.

Commission sales mean that the exporter bears all the financial risk and the importer sells the produce on a commission basis, i.e. the importer deducts commission and all other costs from the sales price and the remainder is paid to the exporter. Sales prices are very difficult to predict and to control. It is common for the exporter and the commission agent to disagree on the actual outcome of the sales. If export prices are fixed by the authorities in the country of origin, a guaranteed minimum price is used so the export price will often only cover the cost of production.

Direct auction sales are difficult to establish from many countries since there are no fixed export prices for the products until after they have been sold at the auctions. Auctions will not handle products accompanied with a minimum price invoice. Generally direct auction sales are executed by exporting the produce to the auction accompanied by a pro-forma invoice stating the name of the customer (auction), the volume, assortment, quality, number of boxes etc., but without a fixed price. The shipment is cleared by customs, both in the country of origin and in the country of destination, after the auction sales when the price has been established. The exporter is paid by the auction after deduction of handling fees, auction costs and import duty. Produce which originates from countries where export prices are fixed on the export invoice is generally handled by a market agent or via the exporter's own marketing company. The prices set on the export invoice often represent only the production costs of the produce.

The majority of produce is imported at fixed prices, as commission sales have proved to be unsatisfactory for exporters and the German auctions are too small to handle large volumes. An increasing percentage of the produce is sold on FoB terms. The exporter is strongly advised to obtain references about the solvency and reputation of the importer(s) before entering into a firm business relationship. Payments should be followed up carefully and exporters should act immediately when they are consistently delayed.

It is often an advantage to export into more than one market, since market demands for specific seasons and/or peak sales periods may vary.

Servicing the Market

Packaging

In 1991, Germany implemented new regulations for packaging material, in order to recycle as much as possible for environmental reasons. In short this involves the following:

Packaging must be manufactured from materials which are environmentally sound and can be recycled.

Waste from packaging shall be avoided by ensuring that packaging:

- is restricted to the dimensions actually required to protect the contents and to market the product,
- is designed so that it may be refilled provided this is technically feasible, reasonable and compatible with the regulations applying to the contents,
- is reused or recycled, if it cannot be refilled.

The above regulations cover transport and sales packaging and secondary packaging such as plastic sleeves, newspaper etc.

Normal cardboard cartons can be recycled and are acceptable, whereas waxed or plastic coated cartons are unacceptable. Cartons may be lined with plastic film. Flowers may also be packed in plastic sleeves and paper wrapping.

There are a variety of sizes of cardboard boxes being used. There are no set standards for packaging units and/or sizes for any specific species on the German market. Often, the major exporting country of a specific species sets the standards. These may be followed by other countries exporting the same species.

Specifications for packaging for each species are given in the product section of this handbook. The exporters in the Netherlands have tried to establish a standard carton system, including air cartons suitable for air pallet loading. These sizes are internationally accepted and have the following dimensions:

DUTCH STANDARD BOX			
Code	Size (cm)	Volume (litres)	IATA weight (kg)
AA	120 x 46 x 39	138	27
A	120 x 46 x 25	118	23
B	120 x 36 x 25	90	18
C	120 x 36 x 19	67	14

Servicing the Market

DUTCH AIR BOX			
Code	Size (cm)	Volume (litre)	IATA weight (kg)
21	106 x 35 x 36	118	21
18	106 x 35 x 30	100	18
15	106 x 35 x 24	79	15
12	106 x 35 x 20	65	12

The air cargo rates for most floricultural products are calculated by volume and the IATA weights represent the chargeable weight per box. Consequently bulky, lightweight products are more expensive per unit to air freight than heavier, more compact ones.

It is recommended that fully telescopic cardboard boxes are used as they are stronger than those which open at the top. Packaging should be clean and of good quality and show the produce well. An export carton should withstand rough handling, frequent changes in temperature and humidity and customs inspections. Poor quality cartons are sensitive to high relative humidity and consequently crush easily during transport and handling.

Transportation

Cut flowers and ornamental foliage must be kept at appropriate temperatures throughout the marketing chain. Cold storage, refrigerated transport (both in the country of origin and in the country of destination), good packaging and rapid handling are essential. Some products may require a higher temperature to prevent damage by cold in the German winter.

Trends in Produce Sales

The imports of the three major cut flower species, roses, carnations and chrysanthemums, have increased less than those of other cut flowers in 1990-91. There has been an expansion in the demand for summer flowers during the winter. Novelties in this range are expected to be well received by the market.

There is a trend towards using a larger range of ornamental foliage, especially among specialist flower shops and garden centres. However, leatherfern is expected to remain the major ornamental foliage for the foreseeable future.

In the retail sector it is expected that garden centres and street vendors will continue to expand their market share at the expense of specialist flower shops and the food trade. Garden centres are increasingly selling the traditional products of the specialist flower shops e.g. specially designed bouquets, flower arrangements etc. The sales of ready-made bouquets have declined and shifted from food stores to street vendors and garden centres. Flowers for gifts and special occasions are mostly purchased from specialist flower shops, but garden centres are also taking a market share in this sector.

The importance of peak sales periods such as Christmas, Valentine's Day, Mothers' Day etc. is lessening as sales become more regular, but is still substantial.

Domestic production of cut flowers and ornamental foliage will continue to decrease and the market will become more dependent on year round imports of these products.

Promotion and Branding

It will take an exporter 2-3 years to build a reputation and brand name in the wholesale trade. Reputations are earned for regular shipments, prompt shipping information, good produce quality, good grading and packing and rapid adjustment to market changes. A brand name can have a negative effect if the exporter fails to service the market properly. A good brand name should result in fewer marketing problems and claims, coupled with higher average selling prices. Promotion by individual exporters is difficult and expensive, especially if targeted at consumers. However, a good brand name will help the exporter when negotiating with importers for preferential marketing support and effort.

Starting an Export Business to Germany

A potential exporter should start by identifying suitable market contacts. This can be done either through existing contacts or through the various importers and organisations given in Appendix 4.

The exporter needs to visit importers and demonstrate produce samples, show photographs of the project, and discuss production figures, prices and flight schedules.

Servicing the Market

The importer will pay special attention to the international transport links and communication services (i.e. telephone, fax and possibly telex). Produce presentation, packaging and post-harvest handling are important and the importer may wish to alter carton sizes and presentation to suit his operation. The exporter should avoid agreeing to print the importer's brand name on his cartons as this prevents the exporter from establishing a reputation in his own right. In general, there is no need to produce promotional material such as catalogues for these meetings. This literature is important if exhibiting at trade shows.

After the market visits, the exporter should select the most suitable market contact(s) and send them samples of produce. Final selection of trading partners will depend on the reaction of the importer to the samples, the company's enthusiasm and commitment and the results of trade and financial references. Both partners will use the first few months of trade to determine the reliability and commitment of the other. In the end it may be necessary to begin the selection process again.

It is often necessary to push the importer into providing adequate and regular market feedback. It is important for the exporter to visit the German market contact(s) at least once a year to cement business relationships. These visits are used to discuss and settle mutual problems and for the exporter to see the quality of produce on arrival and how it compares with competitors. The exporter will also obtain market information and develop new product ideas.

Products

Introduction

Fifteen products or product categories are discussed. These have been chosen to represent the products which provide the best opportunity for exporters from Commonwealth countries.








For each product the information provided falls into three categories:

Firstly, basic market information that is related to production, including recommended varieties, quality requirements, production locations and harvesting stages.

Secondly, post harvest information. This covers grading standards, packaging as well as post-harvest handling and storage techniques (EC grading and packing standards are set out in Appendices 1 and 2).

Thirdly, market information. This considers market size, import trends, monthly patterns and the seasonality of supplies from major sources. Broad C&F price indications are given for each product wherever possible. These have mostly been based on the VBA flower auction price in the Netherlands as it is the principal determinant of German wholesale prices. The figures must, however, be treated cautiously since price fluctuations between seasons, qualities, grades and varieties are very significant and prices may differ by 50% or more for the same product. Exporters must obtain more specific information from potential importers and from the information sources listed and ideally conduct extended test marketing before commencing large scale exports. Exports to two different markets will give the exporter improved and more reliable market information.

Throughout this handbook the following codes have been used to indicate the supply and demand relationship:

Supply patterns:  peak supply  restricted supply  limited supply
Market windows: eg. 
 possible months to send  good months to send  best months to send

Under the sub-heading 'Successful Selling' the prospects and opportunities for exporters are summarised for each product and recommendations given on how to promote the product and develop sales.

Roses



Varieties:

Roses grown for export are specially bred greenhouse varieties. The assortment can be divided into four groups as below.

Big Flowered Roses:

White: Athena

Red: Obsession, Idol, Madame Delbard, Barcarole

Yellow: Cocktail, Peer Gynt, Texas

Pink: Sonia, Vivaldi

Other: Jacaranda, Tineke, Osiana

Medium Flowered Roses:

White: Jack Frost

Red: Jaguar, Mercedes, Baronesse

Yellow: Frisco, Golden Times

Pink: Europa, Gerdo, Kiss

Other: La Minuette

Small Flowered Roses:

Red: Coronet

Pink: Motrea (not suitable for tropical production), Carolien, Rosetta, Disco

Orange/Yellow: Golden Belinda, Sabrina

Spray Roses:

White: White Dream

Red: Joy, Nikita

Pink: Evelien, Pink Delight

Other: Porcellina

The above varieties represent only a small number of those available and it is essential to discuss requirements with market contacts prior to planting.

Roses

Market Preferences

Roses must look fresh when sold. The market demand for stem lengths is as follows:

Stemlengths	% market volume	Flower size		
		Big	Medium	Small
1. 70-90 cm	30%	•		
2. 40-60 cm	50%	•	•	•
3. 25-35 cm	20%		•	•

Red is the main colour preference but its market share is declining. Pink and other colours have increased their market share.

A typical colour mix is as follows:

- Red - 40% of market volume
- Pink - 30% of market volume
- Yellow - 20% of market volume
- Other - 10% of market volume (White is 2%, and other colours 8%)

The big and medium flowered varieties account for the major market volume. Spray roses have become increasingly popular.

Cut roses are used in bouquets and in all kinds of flower arrangements and floral decorations. They are also used as dried flowers.

Production

Cut roses for the export market must be grown in greenhouses. The life span of the rose plants is about 5-8 years, depending on understock, production technology and changes in market demand. Plants are imported from the Netherlands, Germany, France or Israel, and are usually subject to Plant Breeders Rights. These involve a contract between the grower and the breeder which restricts multiplication of the variety. Royalty fees payable by the grower are in general about DM 1.00-1.50 per plant. Investment costs for a rose production unit are comparatively high.

In tropical areas, roses for export are mostly produced at an altitude of 1,200-2,000 m. Individual varieties react differently to specific microclimates with unexpected results such as malformed flowers,

Roses

increased disease susceptibility, slow growth and low production. Professional advice should be sought prior to planting and trials are advised.

Harvesting

The correct harvesting stage for roses is usually dependent upon the number of petals and, hence, on the variety. Varieties with few petals can be harvested when the bud shows the true colour, but before it starts to open at the top. Varieties with many petals can be harvested when the flower has started to open or is well open at the top. Prematurely harvested roses will not perform well and will produce problems with bent necks and failure to open. Flowers that are too mature will lose their market value. Roses should normally be harvested in the morning and harvesting at mid-day must be avoided.

Grading and Bunching

It is extremely important to handle cut roses carefully after harvesting. To prevent wilting the cut roses are put into water directly after harvesting and transported to the grading facilities as soon as possible. All water should contain a flower preservative throughout the post-harvest handling period.

The grading and packing facilities should be air-conditioned. If there is a delay in grading and bunching the flowers they should be stored in the cold store.

There are three or sometimes four grades for roses, depending on the variety and the market demand. Roses imported direct from overseas suppliers are generally classified as follows:

Grade	Big flowered	Medium flowered	Small flowered	Spray
Extra	80-90 cm	60-70 cm	50-60 cm	50-60 cm
Class 1	70-80 cm	50-60 cm	40-50 cm	40-50 cm
Class 2	60-70 cm	40-50 cm	30-40 cm	30-40 cm
(Class 3)	50-60 cm	30-40 cm	-	-

The roses are graded according to the properties of the specific variety, which may mean that they do not exactly match the above classification. The stem lengths may also be adjusted to meet the specific demands of the importer. The quality requirements for grade Extra are a perfect flower at the correct harvesting stage, a straight and strong stem which can easily support the flower and should be proportionate to the flower size, undamaged foliage and a fresh, residue-free appearance.

Roses

After grading, the lower part of the stem is defoliated and the roses are bunched in units of 20 stems. Spray roses are bunched in units of 10 stems. Each bunch is secured with a rubber band around the lower part. The roses are usually bunched with all flowers at the same level. The flower section of each bunch is wrapped for protection in ondulated white paper and sometimes an additional sheet of plastic or waxed paper, often indicating the grade, is wrapped outside the ondulated paper. The stems should be cut to an appropriate length.

Cold Storage

Successful rose exports require an unbroken cool chain from grading to retail shop. This involves a cold store at the production site, with the capacity for pre-cooling produce after packing, refrigerated transport and access to cold storage at airports. The recommended storage temperature for roses is 2-4⁰C.

Roses should be exported as fresh as possible. The maximum storage time should not exceed 2-3 days in water. Frequent air connections into Germany are therefore essential.

Packaging

Cardboard boxes used to export cut roses should be strong and preferably telescopic. There are no set standards for rose boxes on the German market, and there are a variety of sizes being used. The Dutch 'A' box (120 x 46 x 25 cm and volume/weight 23 kg) holds about 600 roses of 60-80 cm. A box commonly used by African exporters measures 100 x 40 x 22 cm, (volume/weight 15 kg), holds 960 small flowered roses of 30 cm or 200 big flowered roses of 80 cm. Roses can be exported in mixed boxes as well as with one variety of a specific grade in each box.

After packing, the stems should be secured tightly in the box, either with a strong rubber band attached to plastic hooks pierced through the sides of the box, or with a plastic foam covered wooden stick pressed on top of the stems and nailed in place through the sides of the box.

Flower Preservatives

A flower preservative should be used whenever roses are handled in water. Several ready-made products available, e.g. Chrysal RVB, or a preservative can be made up using:

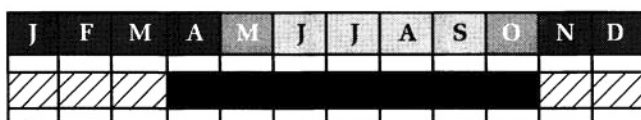
- Either: 30 ppm Silvernitrate + 5% sugar diluted in the water,
- Or: 200 ppm Citric acid + 1.5% sugar diluted in the water

Roses

Supply

Roses are the single most important cut flower species on the German market with imports of 984 million in 1990, an increase of 70 million compared to 1989. The major volumes are imported from the Netherlands, but this includes re-exported roses sold at the auctions. Large volumes of cut roses are directly imported from overseas, some on an all-year-round basis. Domestic production accounts for less than 30% of the market. Other countries competing on the German market are Israel, Colombia, Mexico, Kenya and Zimbabwe.

The supply and demand pattern for imported roses is set out below:



Peak sales are major holidays, St Valentine's Day and Mothers' Day.

Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031011 (1 June-31 October) and 06031059 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 Oct	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

Rose prices vary significantly with grade, quality, variety and season. The prices set out below give a typical range for rose per stem in DM. The most demanded varieties obtain prices which are over twice the average while the worst performing variety have prices half the average.

Roses

The following prices indicate typical C&F prices for roses in DM/stem.

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.48	0.62	0.68	0.75	0.89	0.56	0.52	0.46	0.48
Low Average	0.42	0.55	0.60	0.66	0.78	0.49	0.46	0.40	0.42

Prices are highest in the period of November through to February, when prices are typically over 50% above yearly averages.

Successful Selling

The reunification of Germany is likely to lead to increased demand for cut roses. Demand is also likely to be stimulated by new and improved varieties. Imports from tropical areas are expected to increase provided that the exporters are trustworthy, meet quality standards and service the market well.

Carnations



Varieties: Cut carnations can be divided into three groups:

Standard carnations: This group represents the traditional big flowered carnation and is dominated by the Sim assortment. Mediterranean varieties have been cleaned and multiplied, and have invigorated the range with a wide variety of colours, shapes and sizes. They now occupy an important share of the market.

Red: Scania, Tanga, Red William, Granada

Pink: Nora, Lena, Sharina, Pink Sim, Castellaro, Candy, Calypso, Manon

Yellow: Pallas, Raggio di Sole, Murcia

White: White Sim, Roma, Candy White

Other: Charmeur, Santiago, Toledo

Spray carnations: This assortment came on to the market in the mid 1960's and has increased in popularity:

Red: Rony, Karma

Pink: Annelies, Barbara, Silvery Pink, Medea, Nathalie, Karina,

Yellow: Yellow Odeon, Alicetta, Lior, Cartouche

White: White Royalette, Tibet

Other: Exquisite, Scarlet Elegance, Kissi, Luna.

Micro carnations: This type of carnation was only introduced to the market a few years ago and there is limited demand. It may become of interest to overseas producers if the assortment is improved with varieties suitable for tropical production.

There are in total some 300-400 varieties of carnation sold on the German market. The above varieties represent only a fraction of these.

Carnations

Varieties should be test grown in a new production area prior to commercial scale production in order to ascertain the most suitable assortment. Some varieties have different immunity against *Fusarium* infestation.

Market Preferences

The major imports of **standard carnations** into Germany are of the Sim assortment. Traditionally customers asked only for specific colours within this assortment. However, because of the diversity of the Mediterranean assortment, florists are asking for these by variety name or by characteristics. This assortment is expected to increase in popularity. Varieties with strong characteristics are often sold apart in mixed boxes as novelties, for which premium prices are paid. The German market prefers long, strong stems and well filled flowers.

The grade preferences for standard carnations are the following:

Extra (Select), 70-80 cm	- 60% of the market volume
Class 1 (Fancy), 60-70 cm	- 30% of the market volume
Class 2 (Standard), 50-60 cm	- 10% of the market volume

The grades mentioned in brackets are those used for carnations from Colombia which are frequently being adopted in Germany.

The flowers should look fresh and have vivid colour. Colour preferences are as follows:

Red	- 25-30%
Pink	- 25-30%
White	- 15-20%
Novelties	- 30%

Yellow and lilac varieties represent a small part of the German market.

The colour preference for **spray carnations** is mainly pink, followed by red, yellow/orange, white and bicoloured. Stem length preferences for spray carnations are as follows:

Extra (Select), 60 cm	- 40%
Class 1 (Fancy), 50 cm	- 60%

Comparatively large volumes of shorter stemmed spray carnations are exported from Kenya into the German market.

Carnations

Standard carnations are used in bouquets, flower arrangements and other floral decorations, primarily mixed with other cut flowers. Spray carnations are mainly used in mixed bouquets, especially pre-fabricated bouquets for the retail trade.

Production

Cut carnations for export should be grown in greenhouses. Spray carnations are, however, being produced in open field conditions in some areas (e.g. Kenya) but the quality does not compare favourably. Planting material is imported from the Netherlands, Germany, France, Italy or Israel as rooted or unrooted cuttings. Plants have a maximum useful life. Most carnation varieties are subject to Plant Breeders Rights, and a small royalty fee per plant is payable by the grower.

In tropical areas standard carnations are being produced successfully at altitudes of between 1,600-2,000 m and spray carnations at altitudes of 1,200-2,000 m. Spray carnations require a higher temperature than standard carnations. It is important to choose varieties suitable for the specific microclimate.

Carnations are attacked by a wide variety of diseases, especially vascular diseases. An effective preventive pest control programme should be established.

It is recommended that the assortment and production techniques are discussed with both importers and plant suppliers prior to planting.

Harvesting

Carnations are normally harvested in the morning. The flowers are transported to the grading room as soon as possible after harvest and placed dry in the cold store. They are harvested when the bud has opened and the emerging petals are fully extended but not open past the vertical. Spray carnations should have at least three buds at this stage when harvested. Flowers that are harvested prematurely will not develop well and flowers that have opened too far will obtain a lower market price.

Grading and Bunching

Grading and bunching should take place as soon as possible after harvest and the flowers should be kept in the cold store until grading can begin. It is important for standard and spray carnations to have strong stems which easily support the flower. The flowers should be regular in shape, well filled

Carnations

and of fresh appearance. The flowers, leaves and stems should be free of any residues, the leaves should be curly and the stem and flower undamaged.

The flowers are graded into stem lengths which vary between standard and spray carnations:

Grade	Standard	Spray
Extra (Select)	70-80 cm	60 cm
Class 1 (Fancy)	60-70 cm	50 cm
Class 2 (Standard)	50-60 cm	40 cm

The market for Class 2 is very limited in Germany.

Standard carnations are bunched in units of 20 stems. The stems are secured by two rubber bands, one placed loosely below the blooms and one secured tightly around the lower part of the stems. The stems are arranged so that the blooms overlap each other to make optimum use of space when packing. The stems are cut to the appropriate length and either wrapped in a sheet of soft, white paper or packed without wrapping.

Spray carnations are bunched in units of 10 or 20 stems. The bunches are secured with two rubber bands as described above. They are then wrapped, either as two bunches of 10 stems or one bunch of 20 stems, in a sheet of soft, white paper to minimise damage during transportation.

Cold Storage

After treatment with a flower preservative, carnations are mostly stored dry. They can be stored at 2°C for up to two weeks but it is advisable to export them as fresh as possible and only to use the longer storage periods in an emergency. The packed boxes should be pre-cooled to 2°C in a pre-cooling unit and then stored at this temperature. 2°C should be maintained throughout the distribution chain, requiring refrigerated transport and access to cold storage at airports.

Carnations are extremely sensitive to ethylene gas and should never be stored or transported together with ethylene producing fruits and vegetables.

Flower Preservatives

When handling carnations in water it is essential to use clean water, clean buckets and flower preservatives e.g. Chrysal AVB. Alternatively, a

Carnations

treatment with Silverthiosulphate (STS) will give adequate protection against ethylene damage.

Packaging

Cardboard boxes used for carnation exports should be strong and preferably telescopic. There are no set standards for sizes. The Dutch standard 'A' box (120 x 46 x 25 cm, volume/weight 23 kg), will hold the following quantities:

Variety/grade	Number of stems
Standard, Extra, 80 cm	600 per box
Standard, Class 1, 70 cm	700 per box
Standard, Class 2, 60 cm	800 per box
Spray, Extra, 60 cm	400 per box
Spray, Class 1, 50 cm	500 per box

Standard carnations are usually exported in boxes with mixed colours of the same grade. The colour mix is agreed between the exporter and the importer with some flexibility. Spray carnations are exported in boxes of either mixed or single colours, all of the same grade.

After packing, the stems should be secured tightly in the box, either with a strong rubber band which is secured to plastic hooks pierced through the sides of the box, or with a plastic foam coated wooden stick which is pressed firmly on top of the stems and secured with nails through the sides of the box.

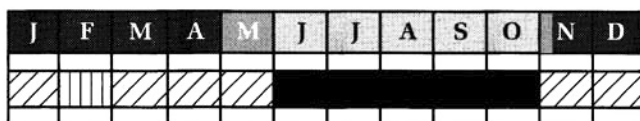
Supply

Carnations are the second most important cut flower on the German market. Total imports have declined but exports from the developing countries are increasing. This increase is expected to continue since both domestic production and production in the Netherlands are considered uneconomical and are declining. Domestic production of carnations in Germany has dropped to less than 10% of the market demand. Carnations are imported all year round.

The major suppliers are the Netherlands, including re-exported carnations, Israel, Colombia, Kenya, Spain, Italy and Turkey.

Carnations

The supply and demand pattern for imported carnations is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031013 (1 June-31 October) and 06031053 (1 November-31 May):

Period	Full	ACP country	LDDC country
1 June-31 Oct.	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

Direct imports of carnations have comparatively stable prices. These are often agreed for each grade for a period of one to two months in advance, depending on the season. This is due to the heavy dependency on overseas imports. Prices are not increased significantly prior to peak sales points, but exporters may restricted the volume to take advantage of premium prices obtainable on other markets. Budget C&F prices are listed, in DM/stem, based on the VBA flower auction and C&F prices (inclusive of customs duty) from Colombia:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
Standard									
High Average	0.40	0.41	0.43	0.47	0.42	0.42	0.36	0.26	0.37
Low Average	0.35	0.36	0.38	0.41	0.37	0.37	0.32	0.23	0.33
Spray									
High Average	0.30	0.32	0.25	0.33	0.38	0.39	0.31	0.25	0.31
Low Average	0.26	0.28	0.22	0.29	0.33	0.34	0.27	0.22	0.28

Carnations

Prices from Colombia C&F Frankfurt inclusive of import duty (in DM):

Variety	Standard	Spray
Stand. Select	0.44	0.37
Stand. Fancy	0.36	0.29
Stand. Standard	0.19	0.17
Novelties	0.41	-

Promotion and Branding

Carnations are imported by both shipping and distributing wholesalers. Large scale production units should market via shipping wholesalers.

Successful selling will be achieved by supplying a consistently attractive, high quality product in regular shipments which present no problems for the importer. The exporter who can also supply the small, special varieties on a regular basis will be more competitive.

There is scope for increasing carnation exports to Germany from tropical areas because of declining production in Northern Europe.

Chrysanthemums



Varieties: Cut chrysanthemums can be divided into two groups:

Big Flowered Chrysanthemums:

These account for only 10% of the German market for chrysanthemums. They are sensitive to transport damage and are of no interest for export.

Spray Chrysanthemums: There are several hundred varieties of spray Chrysanthemums with a wide range of colours, shapes and sizes, and these represent about 90% of the total Chrysanthemum market. Generally larger flowered varieties are preferred to those with tiny, delicate flowers. Some popular varieties are:

White: Cassa Cream, White Reagan, Polaris, Remark, Refour, Daymark, White Spider, Maj. Bosshardt

Yellow: Cassa, Refour Yellow, Golden Polaris, Sunshine, Regoltine, Stafour, Yellow Spider

Pink: Reagan, Moneymaker, Delta, Impala, Mundial, Byoux

Red: Dark Flamenco, Royal Accent

Other: Oranje Reagan, Harlequin, Penny Lane, Funshine

The individual varieties have different development periods and performance varies depending on climatic conditions.

There are major variations in the flower shape. They are often sorted into groups such as single flowered, Anemone, Spiders, Decoratives, Pompoms and Spoon-shaped.

Market Preferences

Spray chrysanthemums are the most popular on the German market and the larger flowered varieties account for about 90% of the total sales.

Chrysanthemums

Stem lengths of 70-80 cm are preferred. Market preferences have moved away from the traditional white and yellow and now a suitable colour mix would be:

White	- 35%
Yellow	- 25%
Pink	- 25%
Red	- 10%
Other	- 5%

It is very important that the flowers have a fresh appearance.

Spray chrysanthemums are mainly used in bouquets mixed with other cut flowers and in floral decorations.

Production

Chrysanthemums are generally grown in greenhouses but there are some enterprises which are growing under shade net. Plants are imported as unrooted cuttings and rooted at the farm. The life span of a chrysanthemum plant is about three months (only one crop per planting). Some varieties are protected by Plant Breeders Rights and for those the grower must pay a small royalty fee per plant. Chrysanthemums are being successfully produced at altitudes of about 1,200-1,800 m in tropical areas

Chrysanthemums are sensitive to several pests and diseases and must be sprayed regularly.

Chrysanthemums are short day plants i.e. the plant remains vegetative in long day conditions and flowers in short day conditions. The day length can be controlled artificially. It is lengthened with incandescent light, if they are being produced in short day conditions, and shortened by covering the plants with black cloth, if they are being produced in long day conditions. A combination of both can be used. In tropical areas day lengthening is necessary during the first 3-4 weeks after planting and the natural short day will suffice for flower induction.

It is recommended that the varieties, production planning and packing units are agreed jointly with the German importer.

Harvesting

Chrysanthemums are harvested in the morning and the flowers should be put in clean water as soon as possible after harvest and transported to the grading facilities. Flowers are harvested when the outer petals, on a minimum of five buds, are almost developed and the inner petals are emerging. Prematurely

Chrysanthemums

harvested flowers will not open, and flowers that have opened too far will have a lower market value. Harvesting time for each planting is about 10-14 days.

Grading and Bunching

Chrysanthemums are graded by stem length, flower appearance, number of flowers, stem straightness, stem strength and freshness. Spray chrysanthemums are mainly sold as grade Extra on the German market, but it is possible to find markets for shorter grades in limited volumes. Varieties which have difficulty in reaching grade Extra stem lengths are accepted in

shorter grades. Grade Extra should contain flowers with a minimum 70 cm stem length and at least five developed flower buds on each stem. The stem should be proportionate to the flower cluster and easily support the flowers. The leaves should be fresh and green. Bent stems, damaged leaves, visible residues, visible pests etc. are not accepted.

The lower stem should be defoliated up to 15-20 cm and bunched in units of five stems and secured with a rubber band. The bunch should be cut to the appropriate length and placed in a plastic sleeve.

Cold Storage

Chrysanthemums should be pre-cooled after packing, and be stored in water in a cold store at a temperatures of 2°C. They can be held for about 3-4 weeks. However, it is recommended that the flowers are exported as fresh as possible. Prolonged storage should be used only in an emergency. Chrysanthemums are sensitive to high temperatures after packing. Exporters must use refrigerated transport and cold storage at airports.

Packaging

Spray chrysanthemums are imported into the German market in a variety of different export boxes, both in mixed colours and as boxes of single varieties. The Dutch standard 'A' box (120 x 46 x 25 cm, volume/weight 23 kg) will hold about 200 stems of Extra grade spray chrysanthemums. However, smaller boxes are often preferred by the German importers. A box of 100x40x20 cm (volume/weight 15 kg) or 100x30x20 cm (volume/weight 12 kg) will hold about 125 stems of Extra grade spray chrysanthemums. Cardboard boxes used for export of chrysanthemums should be strong and telescopic.

Spray chrysanthemums have a very low stem:box ratio and low air-cargo rates are necessary to export them profitably.

Chrysanthemums

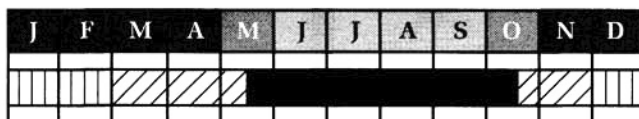
Flower Preservatives

A flower preservative should be used whenever chrysanthemums are handled in water, such as Chrysal, or a solution 1,000 ppm of household bleach.

Supply

Chrysanthemums are a major cut flower on the German market. Total imports reached 322 million stems in 1990, which was an increase of 20 million pieces from 1989. The main import seasons are October-December and April-May, but overseas exporters of chrysanthemums often find a good market in January-March, when the quality produced in Northern Europe is very poor due to inadequate light conditions. Imports of chrysanthemums to Germany have increased following a decrease of the domestic production. The major suppliers of spray chrysanthemums into the German market are the Netherlands, followed by Italy, Israel, Kenya and Spain. The exports of spray chrysanthemums from the Netherlands include an increasing volume of re-exported flowers originating from overseas exporters.

The supply and demand pattern for imported chrysanthemums is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031025 (1 June-31 October) and 06031065 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 Oct.	20%	Free	Free
1 November-31 May	15%	Free	Free

Chrysanthemums

Prices

Import prices for spray chrysanthemums on the German market vary considerably depending on varieties, quality variations, seasonality, regularity. In general, prices are correlated to the expected prices at the Dutch flower auctions and to domestic prices. Prices for direct imports of spray chrysanthemums from overseas exporters are usually agreed for periods of 1-2 months, with the lowest prices in the summer and premium prices in the period January- March. Prices for direct imports from overseas are usually agreed at one price per grade for the whole assortment and by variety.

The following prices indicate typical C&F prices for roses in DM/stem and are based on VBA auction prices.

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.55	0.75	0.82	0.82	0.62	0.50	0.42	0.45	0.53
Low Average	0.50	0.65	0.72	0.72	0.54	0.44	0.37	0.40	0.47

The low prices in the spring reflect poor quality. Good quality product during this period will attract premium prices. The above prices are average prices for all qualities and should be considered as minimum C&F prices inclusive of eventual import duty.

Successful Selling

The key to successful selling of spray chrysanthemums on the German import market is regular shipments, consistently high quality produce, reliable packing, attractive assortments and a good relationship between the exporter and the importer. Spray chrysanthemums are very suitable for large production units and are therefore often imported by shipping wholesalers.

Gypsophila



Varieties: The major variety is Perfecta, a brilliant white flower bred from *Gypsophila paniculata*, with more than 95% of the market. The other variety used is Bristol Fairy.

Market Preferences

The German market prefers gypsophila with a uniform flowering spray, brilliant white colour, light green foliage and fairly long stems. Gypsophila which has been produced in open field conditions and has dark green foliage is also sold. This has fewer flowers and, although it is stronger, is less in demand.

Gypsophila contaminated with or damaged by leafminers is not accepted nor are stems with brown flowers.

Gypsophila is always sold retail in combination with other cut flowers and is used in bouquets and smaller flower arrangements.

Production

Gypsophila is usually produced in greenhouses but is also produced in open field conditions in some countries. Plants are imported from the Netherlands or Israel, either as tissue culture plants or as tipcuttings from tissue culture motherplants. Only one harvest is, in general, obtained from each planting. Gypsophila is produced successfully in tropical areas at altitudes of 1,400-2,000 m.

This plant requires long day conditions to induce flowers. The daylength can be extended with incandescent light when it is grown in short day conditions.

Gypsophila is very sensitive to infestation by leafminers. This will dramatically reduce the market value. It is also sensitive to flying and pollinating insects during the flowering period as

Gypsophila

the flowers turn brown after pollination. When producing gypsophila for export it is very important to apply an effective preventive pest control programme.

Harvesting

The lateral branches are harvested when 1/3-1/2 of the flowerbuds on the individual branch are open. These branches are then placed overnight in water which contains a flower preservative including sugar. They should be held at 20-22°C and illuminated with incandescent light (25 watt per sq.m.). These conditions will induce all the flowers to open simultaneously.

Harvesting is very time consuming and represents the major labour cost in gypsophila production.

Grading and Bunching

In general, only grade Extra is accepted on the German market, but it is possible to find a limited market for shorter grades. Grade Extra should have a stem length of 60 cm and a uniform flower spray. Stems are discarded if they are too weak or if they have brown flowers and/or leafminers.

The stems are bunched in units of five to a bunch and secured with a rubber band. Five bunches are then put together in a bundle and secured with another rubber band. The bundles are placed in a plastic sleeve, or wrapped in a sheet of soft white paper, to protect the sprays. Gypsophila produced in open field conditions is always wrapped in paper and not sleeved, due to the risk of damage by fungi during post-harvest handling.

Cold Storage

Gypsophila should be exported fresh at all times and not be held for more than 3-4 days in cold storage. After packing the boxes should be pre-cooled to 3-4°C and kept at this temperature in the cold store. The flowers are very sensitive to high temperatures after packing so refrigerated transport and access to cold storage facilities at airports is necessary.

Gypsophila is very sensitive to ethylene gas and should not be stored or transported together with ethylene producing fruits and vegetables.

Packaging

There are several types of boxes being used for exports of gypsophila. Cardboard boxes should be strong and preferably telescopic. The Dutch standard 'A' box (120 x 46 x 25 cm, volume/weight 23 kg) will hold about 30 bundles.

Gypsophila

Gypsophila has a low stem to box ratio and a competitive air cargo rate is necessary to export this product successfully.

Flower Preservatives

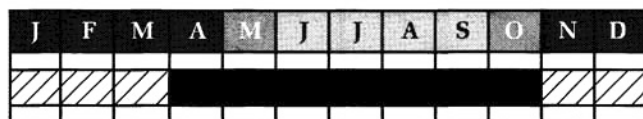
Gypsophila is very sensitive to ethylene gas and a pre-treatment with Chrysal AVB or STS (Silverthiosulphate) is recommended.

Supply

There are no separate statistics available for the imports of gypsophila into the German market. However, the major supplier is the Netherlands and direct imports from overseas exporters are coming from Israel, Colombia and Kenya. Domestic production is small and gypsophila is imported all the year round. The seasonal variation in market demand is closely correlated to the demand for other cut flowers since gypsophila is always mixed with these products. The market is very good in October-May and drops in the summer. Peak sales points are major holidays, St Valentine's Day and Mothers' Day.

Competing products are Aster 'Monte Casino', which was recently introduced to the market, and Ammi majus, of which a large portion is tinted.

The supply and demand pattern for imported Gypsophila is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 Oct.	20%	Free	Free
1 November-31 May	15%	Free	Free

Gypsophila

Prices

Gypsophila prices tend to change with the seasonal variation in demand, i.e. higher prices in the period October-May and lower prices in the summer however, during these periods they are usually stable. C&F prices in DM and based on VBA flower auction prices are given below:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.35	0.75	0.95	0.72	0.82	0.68	0.60	0.25	0.63
Low Average	0.30	0.65	0.85	0.63	0.72	0.60	0.55	0.22	0.55

Prices from overseas exporters tend to be agreed for periods of 1-3 months.

Successful Selling

The key to a successful gypsophila export project is appropriate post-harvest handling techniques, regular supplies, good quality and a brilliant white colour. Gypsophila is imported both by shipping wholesalers and by distributing wholesalers.

Summer Flowers



Delphinium

Varieties from seed: Delphinium ajacis
Ammi majus
Limonium sinuatum (Statice)
Limonium latifolium
Limonium perezii
Anethum graveolens
Euphorbia marginata
Molucella
Solidaster
Celosia plumosa

Varieties from plants: Trachelium
Solidago
Aster 'Monte Casino'
Phlox paniculata

The range consists mainly of species common in Northern European gardens in the summer. The off season marketing of summer flowers has developed over the last decade and the market is still expanding. The assortment is expected to increase with new species.

Market Preferences

Summer flowers were introduced to revitalise and increase the traditional assortment of cut flowers in the winter and to provide the makers of ready-made bouquets with a price-competitive products. New species and varieties are being tested on the market every year. Market preferences are difficult to establish since many of the varieties have only been on the market for a short period. The list in order of popularity is as follows:

Delphinium ajacis (mainly pink and blue),
Limonium sinuatum (Statice, 90% blue),
Ammi majus,
Solidaster,
Phlox paniculata (mainly pink and lilac),
Limonium latifolia,
Limonium perezii (mainly blue),
Molucella,
Solidago,
Aster 'Monte Casino',
Anethum graveolens,
Celosia plumosa.

Summer Flowers

The flowers are imported either as single products or in ready-made bouquets. They are used in mixed bouquets and in flower arrangements and floral decorations.

Production

Most varieties in this assortment are grown in open field conditions but some will need shade net e.g. Trachelium, or greenhouse protection e.g. Aster 'Monte Casino' and Molucella. The amount of protection required will also depend on the microclimate at a specific production site, since some of these varieties are sensitive to rainfall.

The varieties grown from seed in open field conditions involve low investment costs. Flower production based on imported plants and protection is significantly more expensive to establish. However, the latter varieties suffer less from sudden and unexpected increases in production affecting the market. Seed and plants for motherstock are imported from the Netherlands or Germany.

All the above varieties will produce only one crop per planting, after which the area is replanted. A grower will usually produce only one or possibly a few of the above varieties, never the full assortment.

Trachelium is a long day plant and will need extended daylength to flower in tropical areas. This is done by using incandescent light.

The above assortment is successfully produced at altitudes of 1,200-1,600 m in tropical areas.

Harvesting

The varieties are harvested at different development stages:

Bud showing colour: Delphinium ajacis

Bud semi-opened: Limonium
Solidago
Solidaster
Aster 'Monte Casino'
Anethum graveolens
Ammi majus
Trachelium
Phlox paniculata

Bud open: Euphorbia marginata
Molucella
Celosia plumosa

The flowers should be put in water containing a flower preservative and transported to the grading facilities as soon as possible after harvest.

Summer Flowers

Grading and Bunching

Most of the summer flower varieties are sold as Extra on the German market, with stem lengths varying from 50 cm up to 80 cm depending on the variety. However some, such as Ammi majus, are sold in shorter grades as well, especially to the makers of ready-made bouquets. Most of the above varieties produce an equal stem length if appropriate production technology is applied.

The stems should be straight, strong enough to support the flower easily and proportionate to the flower. The leaves should be clean and undamaged with no visible residues or diseases. The flowers should be uniform and fresh. If there are any delays in handling the flowers in the grading facilities they should be kept in cold storage at 3-4°C.

Most varieties are bunched in units of five or ten stems and secured with a rubber band. Some, e.g. Aster 'Monte Casino', are put into bundles of 5 x 5 stems, while others, e.g. Ammi majus, are placed in bundles of 5 x 10 stems. The bundles are also secured with a rubber band. Soft white wrapping paper is preferred.

Cold Storage

Many varieties in this range are delicate and should not be stored for more than 3-4 days. They should be pre-cooled to 3-4°C after packing and stored at this temperature. Summer flowers are mostly very sensitive to high temperatures and exporters should use refrigerated transport and arrange access to cold storage facilities at airports.

Packaging

Most of the summer flowers imported to Germany are exported from Israel or Africa and two types of cardboard box are most commonly used. These are the Dutch standard 'A' box (20 x 46 x 25 cm, volume/weight 23 kg), which will hold 400-600 summer flowers. A box measuring 100 x 40 x 22 cm (volume/weight of 18 kg) will hold approximately the following volumes, depending on quality:

- Delphinium ajacis: about 400
- Ammi majus: about: about 600-800
- Limonium sinuatum: about 500
- Limonium latifolium: about 400-450
- Limonium perezii: about 300-350
- Anethum graveolens: about 600-800
- Euphorbia marginata: about 400-450
- Molucella: about 350-400
- Celosia plumosa: about 400-450
- Trachelium: about 350-400
- Solidago/Solidaster: about 500

Summer Flowers

Aster 'Monte Casino': about 300-400

Phlox paniculata: about 300-400

Cardboard boxes should be strong and of telescopic design. The flowers should be secured tightly in the box with a rubber band across the stems, which should be secured by plastic hooks pierced through the sides of the box.

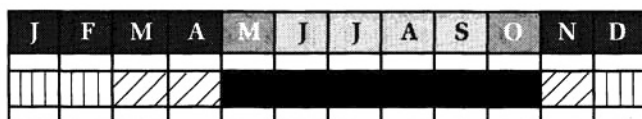
Flower Preservatives

It is recommended that a ready-made flower preservative is used when handling summer flowers in water.

Supply

Most of this assortment are grown as summer flowers in the gardens of Northern Europe and there is very little export value at this time. The major export market into Germany is from November until May, with peak sales points during major holidays, St Valentine's Day and Mothers' Day. There are no separate statistics available for the imports of summer flowers, but the major exporting countries are the Netherlands, including re-exported flowers from many countries, Israel, Kenya, Zimbabwe and Zambia. Several countries in Africa are presently setting up production for export.

The supply and demand pattern for imported summer flowers is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is required for Limonium imported from non-EC countries
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 Oct.	20%	Free	Free
1 November-31 May	15%	Free	Free

Summer Flowers

Prices

Low priced varieties in the summer flower assortment usually have low production costs. Novelties tend to be very high priced during their introductory period. Profitability is generally satisfactory both for high priced and low priced varieties.

Several varieties are sensitive to oversupply which results in significant price fluctuations. This is partly because the majority of these varieties are comparatively small when compared to the major cut flower species.

C&F prices in DM, and based on VBA flower auction prices, are set out below:

Variety	Year								
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Av.
Delphinium	0.24	0.28	0.25	0.41	0.52	0.30	0.28	0.38	0.25
Ammi majus	0.21	0.21	0.23	0.32	0.28	0.25	0.30	0.31	0.25
Statice	0.26	0.35	0.31	0.47	0.28	0.29	0.29	0.21	0.29
Limonium									
- latifolia	0.24	0.33	0.17	0.62	0.66	0.68	0.36	0.25	0.32
- perezii	0.20	0.31	0.21	0.41	0.34	0.42	0.35	0.26	0.28
Anethum graveolus	0.25	0.26	0.22	0.26	0.36	0.21	0.18	0.28	0.19
Euphorbia marginata	0.16	0.23	0.29	0.31	0.28	0.23	0.22	0.19	0.25
Molucella	0.35	0.36	0.51	0.34	0.39	0.36	0.31	0.49	0.41
Solidaster	0.28	0.29	0.30	0.52	0.47	0.39	0.46	0.29	0.33
Solidago	0.23	0.45	0.48	0.48	0.53	—	0.25	0.32	0.23
Celosia plumosa	0.22	0.43	—	—	—	—	0.30	0.20	0.24
Trachelium	0.56	0.83	0.72	0.63	0.70	0.70	0.46	0.52	0.45
Aster Monte Casino	0.64	0.61	0.37	0.62	0.40	0.28	0.61	0.56	0.52
Phlox paniculata	0.31	0.39	0.29	0.56	0.66	0.65	0.57	0.43	0.38

Successful Selling

Summer flowers are a developing market which should be watched closely so that production can be adjusted accordingly. Introducing a novelty on to the German market will greatly improve the image of the exporter and the importers' interest in his products. It is always important to ensure regular shipments of high quality fresh flowers.

Alstroemeria



Varieties: Red: Marina
Orange: King Cardinal
Pink: Rosario, Pink Triumph
Yellow: Yellow King, Rio
Other: Libelle, Annabel, Flamenco,
Jubilee, Jacqueline

These are the major varieties imported into Germany. Different names are used for the same varieties from different countries in order to avoid the significant royalty fees payable for alstroemeria plants.

Market Preferences

Alstroemeria has become a major cut flower on the German market. In general only Extra grade is imported but low prices are paid for a limited supply of shorter grades. All alstroemerias are bicoloured, with one or two more dominating shades. The varieties with more shades are preferred to those with only one dominating shade. Pink or lilac varieties are preferred. Pink and other soft shades represent more than 60% of the total volume. It is very important that the flowers have a fresh appearance.

Alstroemeria is mainly used in mixed bouquets and in ready-made bouquets for supermarkets and food stores.

Production

Alstroemerias are being produced successfully in tropical areas at altitudes of 1,600-2,500 m, both in greenhouses and in open field conditions. The individual varieties may perform very differently depending on climatic conditions. Advice should be sought concerning the assortment prior to planting. Individual varieties may also have different cropping periods which will affect project planning.

Plants are imported from the Netherlands and will produce flowers over a period of about three

Alstroemeria

years in greenhouses, and up to five years in open fields. The actual cropping length depends on the variety and growing conditions. Most varieties are protected by Plant Breeders Rights which involve a contract with the breeder concerning restricted multiplication. A significant royalty fee is payable.

Harvesting

The flowers are harvested in the mornings when the buds show their true colour, but prior to bud opening. Immediately after harvest they are put in water containing a flower preservative and transported to the grading room.

Grading and Bunching

The flowers are graded by the following criteria:

Extra: stem length - 80 cm, min. 5 - 7 flowers per stem

Class 1: stem length - 70 cm, min. 3 - 5 flowers per stem

If properly grown most varieties will produce only Extra grade flowers. The general appearance should be fresh and in proportion, free of any residues with a straight stem and undamaged foliage.

The flowers are bunched in units of five stems per bunch in Extra grade and ten stems per bunch for Class 1. The stems are secured with a rubber band and cut to appropriate lengths. The bunches are placed in a plastic sleeve.

Cold Storage

Immediately after bunching the flowers should be put in water containing a flower preservative and placed in the cold store for treatment at 5°C (see flower preservatives). After treatment, the flowers should be packed and the boxes pre-cooled to 3-4°C and stored at the same temperature. Alstroemeria should always be exported as fresh as possible and should not be stored for more than 3-4 days.

Alstroemerias are sensitive to high temperatures. Transport should be refrigerated and with cold storage at the airport. The flowers are very sensitive to ethylene gas and should not be stored with ethylene producing fruits or vegetables.

Packaging

Export boxes for alstroemeria should be strong and telescopic. The Dutch standard 'A' box (120 x 46 x 25 cm, volume/weight 23 kg) will hold about 400 grade Extra flowers.

Alstroemeria

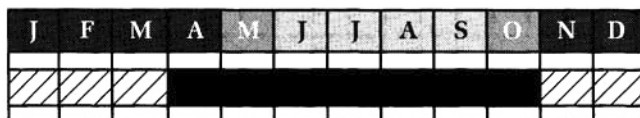
Flower Preservatives

One of the major problems with overseas imports of alstroemeria has been yellowing leaves. This problem can be eliminated through a pre-treatment with Chrysal SVB for a period of 20 hours at 5°C.

Supply

Alstroemeria is imported into Germany all the year round. The major import season is November-April, followed by a slack season during summer. The main supplier is the Netherlands, followed by Kenya and Israel. Domestic production is small.

The supply and demand pattern for imported alstroemeria is set out below:



Import Legislation (See Appendices 1 an 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

Prices for alstroemeria are relatively stable. Import prices from overseas exporters are often agreed for periods of 1-2 months in advance. The following prices indicate typical C&F prices in DM/stem and are based on VBA auction prices.

Alstroemeria

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.51	0.56	0.58	0.76	0.77	0.69	0.39	0.29	0.38
Low Average	0.45	0.49	0.51	0.67	0.68	0.61	0.34	0.26	0.33

Successful Selling

The two most important factors for successful selling of alstroemerias on the German market are a fresh product and an attractive assortment. Other important factors are reliable quality and regular scheduled shipments. Alstroemerias are being imported into Germany both by shipping wholesalers and by distributing wholesalers.

Gladiolus



Varieties: There are an numerous gladiolus varieties and the producer need a mixture. The major varieties can be divided into two groups:

Big flowered:

Red: Fidelio, Hunting Song

White: White Friendship

Pink: Friendship, Rose Supreme

Orange: Peter Pears

Yellow: Priscilla, Nova Lux

Bicoloured: Margaret Rose

Small Flowered:

Red: Robinette

White: Alba

Pink: Charm, Charming Beauty

Orange: Guernsey Glory

Bicoloured: Nymph

Market Preferences

Small flowered gladioli have gained in popularity on the German market and interest in the big flowered varieties has declined. Importers prefers boxes of mixed colours, with equal amounts of orange, red, pink, yellow and lilac and about 5% white. Only Extra grade is imported with minimum 70 cm stems. The small flowered varieties are expected to increase in volume, provided that a larger assortment is introduced to the market.

Gladioli are used mainly in mixed bouquets and floral decorations

Production

Gladioli are successfully produced for export in tropical areas at altitudes of 1,200-2,000m and are produced in open field conditions. Corms are imported from the Netherlands. After harvesting, the corm can be re-grown until it has reached an appropriate size to produce export quality flowers and multiplied.

Gladiolus

Major problems in gladiolus production are viruses from contaminated corms and fungal diseases. It is important to start with good planting material.

Harvesting

The flowers are harvested in the mornings when the lower buds have just begun to show their true colour. The flowers are immediately transported to the grading facilities, where they are stored in the cold store until grading. Gladiolus flowers open very rapidly and if they have opened too far they will lose their market value.

Grading and Bunching

Flowers are graded into Extra grade only, with stem lengths of 70-80 cm. Other grading criteria are undamaged flowers, clean and straight stems, absence of virus discolouration on leaves and flowers and freedom from visible fungi.

The flowers are bunched in units of five and secured with a rubber band. Some exporters wrap the bunch in a sheet of soft, white paper, but most pack the bunches without wrapping.

Cold Storage

It is important to maintain the flowers at a low temperature at all times to prevent the flowers from opening. The flowers should be held in hold storage before grading. Gladioli should be pre-cooled after packing, and the flowers should be stored, upright, at 2-3°C. It is necessary to use refrigerated transport and to have access to cold storage facilities at the airport. To ensure freshness it is recommended that storage periods should not exceed 3-4 days.

Packaging

Cardboard boxes used for gladiolus export should be strong and telescopic. A commonly used carton measures 100x35x25 cm, in which 16 bunches of mixed colours are packed (80 flowers). The cartons must be handled and stored standing in a vertical position or the flower spikes will bend because of geo-tropism.

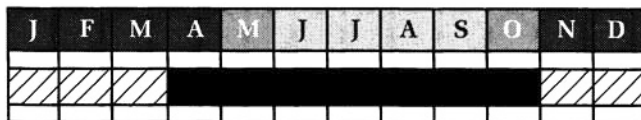
Supply

The total imports of gladioli to Germany were 40 million stems in 1990, and have been falling by about 15% per annum. The decrease is due to a declining market for gladioli, and not increased domestic production. It is

Gladiolus

expected that the introduction of small flowered varieties will regenerate the popularity of gladioli. The major exporting countries into the German market are the Netherlands, Spain, Israel and Zambia.

The supply and demand pattern for imported Gladiolus is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is required
- Quality standards apply, but the application is liberal
- Imports from non EC countries are prohibited from 1 May-31 October, when Gladiolus rust is known to occur.

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031021 (1 June-31 October) and 06031061 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

The seasonal variation in demand boosts prices in the winter and lowers them in the summer. The following prices indicate typical C&F prices in DM/stem and are based on VBA auction prices.

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.30	0.38	0.48	0.55	0.55	0.59	0.76	0.42	0.23
Low Average	0.25	0.33	0.43	0.48	0.48	0.51	0.67	0.37	0.20

Gladioli are sold by colour and not by variety when exported directly to Germany and prices are agreed for periods of 1-2 months.

Successful Selling

The key to successful exports of gladioli into the German market are appropriate post-harvest handling, regular shipments of good quality flowers and a good range. Gladioli are being imported both by shipping wholesalers and distributing wholesalers. A competitive air cargo rate is essential.

Irises



Varieties: The assortment is limited but the major varieties are:

Blue: Ideal, Professor Blauw

Purple: Blue Magic

Yellow: Yellow Queen

White: Wedgewood, Apollo

Market Preferences

Blue varieties are most popular on the German market (80% of the total) followed by purple (10%), yellow (5%) and white (5%).

Irises are mostly used in bouquets mixed with other flowers and in floral decorations.

Production

Irises are produced from bulbs imported from the Netherlands. They are successfully grown at an altitude of 1,200-1,600 m in tropical areas. They can be produced both in open field conditions and in plastic greenhouses, mainly depending on the specific microclimate. Each bulb will produce one flower.

Harvesting

The flowers should ideally be harvested in the morning. They are harvested when the colour starts to be visible. The flowers open very rapidly and must be transported to the cold store immediately after harvest. Flowers that are too mature have no market value.

Grading and Bunching

Irises produce a very uniform quality and only malformed and over-mature flowers are rejected. The stems should be 50-60 cm, straight and free of residues and diseases.

The flowers are bunched in units of ten stems to a bunch, secured with a rubber band and then cut to an appropriate length. The bunches are then

Iris

bundled with five bunches to a bundle, secured with a rubber band and then either placed in a plastic sleeve or wrapped in a sheet of soft, white paper.

Cold Storage

After bunching, the flowers should be packed immediately and pre-cooled to 2-3°C in a pre-cooling unit. They should be stored at this temperature until they are exported. Irises should be exported fresh at all times. They are very sensitive to high temperatures and it is necessary to use refrigerated transport and to have access to cold storage facilities at the airport.

Packaging

Irises are heavy and require a very strong cardboard box, preferably of telescopic design. The standard Dutch 'A' box (120 x 46 x 25 cm, weight 23 kg) will hold about 600 flowers.

Supply

Irises are mainly imported to Germany from the Netherlands. There are no import statistics available on total imports.

The supply and demand pattern for imported irises is set out below:

J	F	M	A	M	J	J	A	S	O	N	D

Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

Custom Tariffs (See Appendix 3)

Rates as percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 Nov.-31 May	15%	Free	Free

Irises

Prices

Prices for irises are very stable throughout the season.

Set out below are budget C&F prices for irises, in DM, based on VBA flower auction prices:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.19	0.24	0.25	0.28	0.24	0.19	0.20	0.16	0.20
Low Average	0.17	0.21	0.22	0.24	0.21	0.17	0.18	0.14	0.18

Successful Selling

Successful exports of irises into the German market depend mainly on low air-cargo rates, regular shipments and good quality flowers.

Lilies



Varieties: The assortment of lilies imported to Germany can be divided into two groups:

Stem Lily:

Asiatic varieties: Enchantment (orange), Connecticut King (yellow), Apeldoorn (orange), Cote d'Azur (pink), Hilde (yellow), Mont Blanc (cream), Montreux (pink), Sun Ray (yellow)

Oriental varieties: Star Gazer (pink), Journey's End (pink), Laura Lee (dark pink), Casablanca (white)

Speciosum:

Uschida, Rubrum (both pink)

Longiflorum:

White Europe

There is a large assortment of lilies being exported to Germany from the Netherlands but, because of high prices for bulbs, overseas imports consist of a very narrow assortment. This is expected to change in the future.

Market Preferences

The main varieties are Enchantment and Connecticut King, which account for more than 60% of the total market. However, German importers would like to import a larger assortment if they were available from overseas exporters. Long stemmed lilies are preferred and almost all imported products are of Extra grade.

Stem lilies are used in bouquets mixed with other cut flowers and also in flower arrangements and floral decorations. *Lilium longiflorum* is only used in floral decorations.

Lilies

Production

Lilies are, in general, produced under shade net in tropical areas. They are produced successfully at altitudes of 1,200-1,800 m in tropical areas and down to sea level in South Africa. Bulbs are imported from the Netherlands. These can be re-grown after harvest.

Harvesting

Harvesting is done in the mornings when the lower buds on the spike are fully developed but before they burst open. After harvest, the flowers should be put in water containing a flower preservative and transported to the grading facilities.

Grading and Bunching

Stem lilies are graded according to stem length and the number of buds which will open in water. The quality depends to a large extent on the size of the bulbs planted, but also on the variety. A grade Extra should be 70-80 cm long and have minimum of 7-9 buds showing colour. The flowers should be free of any residues with healthy leaves and a straight, strong stem. Class 1 should be 60-70 cm with 6-7 buds.

The lower stem is defoliated after grading. The flowers are bunched in units of ten stems to a bunch, secured with a rubber band, and cut to an appropriate length. Each bunch is placed in a plastic sleeve.

Lilium longiflorum is sold per flower and, depending on the size of the bulb or if seedlings have been grown, may have up to 8 flowers per stem. They are harvested at the same stage as stem lilies. The flowers are bunched in units of 20 flowers per bunch and secured with a rubber band. The bunch is wrapped in a sheet of soft, white paper.

Cold Storage

After packing the boxes should be pre-cooled to 3°C and stored at this temperature until exported. They are also sensitive to high temperatures and should be distributed via a cool chain. Lilies are sensitive to ethylene gas and should not be stored with ethylene producing fruits or vegetables.

Packaging

There is no standard cardboard box for lilies on the German market, but the Dutch standard 'AA' box, (120 x 46 x 29 cm, volume/weight 27 kgs), will hold about 300 stem lilies and about 30 bunches of *Lilium longiflorum*. The boxes should be strong and of telescopic design.

Lilies

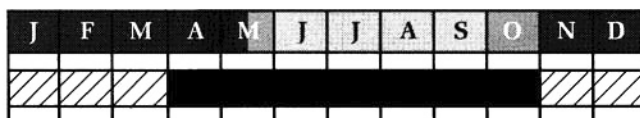
Flower Preservatives

The flowers should be treated with a flower preservative, either STS (Silverthiosulphate) or Chrysal LVB after harvest, in order to avoid problems with ethylene, leaf drop and flower abscission.

Supply

The major import market is in the period November-May, with peak sales points at major holidays. There are no specific import statistics for lilies into Germany, but the major exporting countries are the Netherlands, Israel and South Africa.

The supply and demand pattern for imported lilies is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 6031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

Prices vary significantly depending on variety and season. Prices are higher in November-April and lower in the summer and before peak sales periods. Direct import prices are agreed for periods of 1-2 months, and do not reflect sudden fluctuations on the market. If a wider assortment is exported into the German market, it is recommended that one price is agreed for the major varieties and another higher one for the more exclusive assortment.

Lilies

Set out below are budget C&F prices for the main stem lily varieties, in DM, based on VBA flower auction prices:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	0.50	0.52	0.82	0.76	0.96	0.78	0.55	0.41	0.44
Low Average	0.44	0.46	0.72	0.66	0.83	0.68	0.48	0.36	0.39

Some varieties, notably Hilde and Casablanca, obtain higher prices.

Successful Selling

High quality and an attractive assortment combined with regular shipments and good packing are the essential ingredients for successful lily exports to the German market. It is extremely important to be flexible with varieties and production to meet the requirements of the importers. Lilies are being imported to Germany by both shipping wholesalers and distributing wholesalers.

Exotic Bulbs and Corms



Ornithogalum arabicum



Nerine bouwdenii

Assortment: The assortment is expected to increase in the future to satisfy the increasing market demand for novelties. The present major species are:

Liatris callilepis
Ornithogalum arabicum
Ornithogalum thyrsoides
Nerine bouwdenii

Market Preferences

Ornithogalum thyrsoides represents about 90% of the market for *Ornithogalum*, and *Ornithogalum arabicum* about 10%. These varieties only exist in white, but *Ornithogalum thyrsoides* is often tinted with other colours.

Liatris has both blue and white forms but blue is preferred and represents about 95% of the *Liatris* market.

Nerine bouwdenii is light pink and is the most popular *Nerine* variety.

The German market prefers Extra grade of *Ornithogalum* and *Nerine*, but *Liatris* is imported in several grades (stem lengths).

The above assortment is used in bouquets mixed with other cut flowers and in flower arrangements. *Liatris* is a popular product for ready-made bouquets for the supermarkets, food stores etc.

Production

Liatris and *Ornithogalum* are produced in open fields while *Nerine* is produced in greenhouses. In tropical regions the above species are successfully produced at altitudes of 1,200-1,800 m. *Nerine* may suffer from fungal diseases in areas with high humidity.

Exotic Bulbs and Corms

Harvesting

Ornithogalum thyrsoides is harvested when the first flowers show colour and start to open while Ornithogalum arabicum is harvested when the whole cluster shows the true colour. Liatris is harvested when the first flowers in the top of the spike start to open and Nerine is harvested when the first flowers have just started to open. If harvested too late the flowers will lose their market value, and if harvested prematurely they will not perform well. Harvesting should take place in the mornings.

Grading and Bunching

After harvest, the flowers are transported to the grading facilities for grading and bunching. Ornithogalum arabicum should have a well developed and nicely shaped flower cluster on a strong and straight stem of 60 cm to qualify for Extra grade. Ornithogalum thyrsoides should have a straight and strong stem and flower spike and a total length of 35-40 cm to qualify for Extra grade.

Ornithogalum is bunched in units of ten stems to a bunch, secured with a rubber band and cut to the appropriate length. These are then bundled into units of five bunches to a bundle, secured with a rubber band and wrapped in a sheet of white paper.

Liatris are graded into the following grades:

Extra: 80-90 cm

Class 1: 70-80 cm

Class 2: 60-70 cm

Shorter grades are also being imported, depending on the importer's requirements. Grading criteria for all grades are straight and strong stems which are not too thick and are proportionate to the whole flower, and a well shaped with a regular flower spike without visible fungal damage.

Nerine should have a straight, strong stem of about 50 cm and are well developed, regular flower cluster to qualify for Extra grade.

Liatris and Nerine are bunched in the same way as Ornithogalum.

Cold Storage

Liatris and Ornithogalum are stored at 3-4°C, while Nerine should be stored at 6-8°C (lower temperatures result in chilling injuries).

Exotic Bulbs and Corms

The flowers should be exported as fresh as possible, especially *Liatris* and *Nerine*, and storage periods of more than 3-4 days are not recommended. If possible, refrigerated transport and cold storage facilities at airports should be used.

Packaging

There are no standard boxes on the market for the export handling of the above species on the German market. The Dutch standard 'A' box (120 x 46 x 25 cm, volume/weight 23 kg) will hold the following quantities:

Nerine:	400-600 stems
<i>Ornithogalum arabicum</i> :	400-500 stems
<i>Ornithogalum thyrsoides</i> :	600-800 stems
<i>Liatris</i> :	400-500 stems

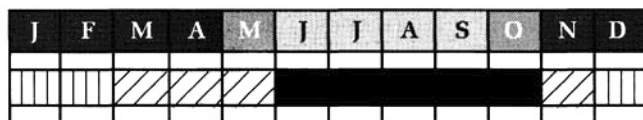
Export boxes should be strong and preferably of telescopic design.

Supply

There are no specific statistics available for imports of the above assortment to Germany, and the domestic production of these products is considered to be very small. The major volumes of the above assortment are imported from the Netherlands, Israel, Kenya, Zimbabwe and Swaziland.

The supply pattern follows that for other cut flowers, with higher prices in the winter and lower prices in the summer.

The supply and demand pattern for exotic bulbs and corms is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Exotic Bulbs and Corms

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

The highest prices are paid in December-March and the lowest prices in June-October.

Set out below are budget C&F prices for the main exotic bulbs and corms, in DM, based on VBA flower auction prices:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
Liatrix	0.15	0.25	0.24	0.44	0.35	0.26	0.23	0.27	0.28
Nerine	0.37	0.38	0.48	0.71	1.15	1.50	1.30	0.96	0.48
Ornithogalum									
- arabicum	0.35	0.47	0.45	0.48	0.51	0.51	0.50	0.47	0.45
- thyrsoides	0.19	0.21	0.20	0.27	0.29	0.22	0.25	0.24	0.19

Successful Selling

Consistently high produce quality and regular shipments are essential in order to export these flowers successfully. It is very important to plan production jointly with the German importer, and to adjust to market requirements at all times.

— Tropical Exotics - Anthurium Andreanum —



Varieties: Intensive breeding has resulted in a wide and rapidly changing assortment of anthuriums. In addition to the varieties mentioned below, there are many small volume varieties being imported into Germany. It may also be possible to find local leaf-anthuriums in the tropics which would suit the market. However, the wild, pink species has little market value.

Red: Scarlet Red, Avonette, Tropical, Scarlette, AvoClaudia

Orange: Favourite

Pink: Avoanneke, Hoenette

White: Cuba Acropolis

Bicoloured: Uranus, Gracia

Market Preferences

Anthuriums are delicate flowers. The German market is very concerned about the packaging from overseas suppliers, with a clear preference for the Dutch packaging (see below), which ensures that the flowers arrive in perfect condition. The dense packing often practised by overseas exporters has made importers reluctant to commit themselves to their products.

The German market prefers straight, strong stems and small to medium flower sizes. The colour preferences are as follows:

Red and orange/red:	60%
Pink:	20%
White:	15%
Bicoloured:	5%

Anthurium is used both in bouquets, either mixed with other cut flowers or in singles with ornamental foliage, and in flower arrangements and floral decorations.

— Tropical Exotics - Anthurium Andreanum —

Production

Anthurium andreanum is produced under shade net in tropical humid areas. The planting material is imported mainly from the Netherlands but also from Mauritius or Hawaii. The plants stay productive for 4-6 years. The plants require a high organic content in the soil.

Anthuriums are very sensitive to nematodes and to root rot.

Harvesting

Harvesting should take place when a minimum of half the spadex has developed its true colour and the stem immediately below the bract is strong and stiff. The flowers should be put in water containing a flower preservative immediately after harvest and transported to the grading facilities.

Grading and Bunching

Anthuriums are graded according to the size of the bract and stem length. The following grades are those normally applied for Anthurium. A single variety will not produce all the sizes but will remain within about three sizes:

Bract size	Min. stem	No/box
15 cm and above	50 cm	8
13-15 cm	45 cm	12
11-13 cm	40 cm	16
9-11 cm	35 cm	11
8-9 cm	30 cm	15
7-8 cm	25 cm	18
6-7 cm	25 cm	21

Other grading criteria for anthurium are absolute freshness, characteristic shape, and freedom from pests, diseases and residues.

Packing

Each stem is packed with a phial of water containing a flower preservative. The stems are taped to the bottom of the box to prevent them from touching each other, and protected with shredded soft paper or pieces of white foam. The spadex is often protected by plastic foam. Anthurium is very sensitive to low temperatures and extra protection may be required during the winter.

— Tropical Exotics - Anthurium Andreanum —

The boxes used in the Netherlands are available in three sizes, 100 x 20 x 10 cm, 100 x 40 x 12 cm and 110 x 40 x 14.5 cm. They are made of good quality cardboard and are telescopic. Cartons should be handled carefully so as to avoid bruising or damage by low temperatures.

Cold Storage

Anthuriums are very sensitive to low temperatures and chilling injuries occur even at 11-13°C. It is recommended that they are handled in air-conditioned temperatures of about 20-22°C, and exported as fresh as possible at all times. Anthuriums have a long vase life of up to 3-4 weeks.

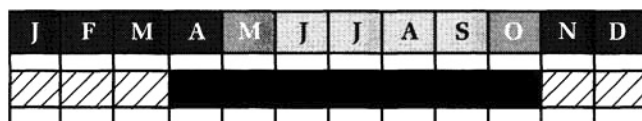
Flower Preservatives

It is recommended that a flower preservative, e.g. Chrysal, is used in all water handling of anthurium.

Supply

There are no specific statistics available for imports of anthurium to the German market, but the product is considered to be comparatively small, mainly due to distribution problems but also to the price. Imports take place all year round from the Netherlands but seasonally from overseas imports. The market demand is seasonal with a good market in the period November-April and a slack season in the summer. The major exporting countries are the Netherlands, Jamaica, Hawaii, Mauritius and the Ivory Coast. Overseas suppliers can prolong their season and increase their quantity if they use appropriate packing and offer an attractive assortment.

The supply and demand pattern for imported anthuriums is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

— Tropical Exotics - Anthurium Andreanum —

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

Anthuriums imported direct from overseas exporters only obtain about half the price of Dutch produce on the German market. The main reasons for this are a limited assortment and poor packaging. If these problems were overcome an overseas exporter could acquire an all year round export market and a good price. Set out below are budget C&F prices for the main Stem Lily varieties, in DM, based on VBA flower auction prices:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Year Av.
High Average	1.80	2.40	3.00	2.60	2.70	2.50	2.35	1.50	1.80
Low Average	1.60	2.10	2.65	2.30	2.40	2.20	2.10	1.30	1.60

Variety can influence prices by about 30% from the average.

Successful Selling

In order to export anthuriums competitively to the German market low air-cargo rates are essential. The exporter will have to offer an attractive assortment in packaging which guarantees the safe arrival of the produce. It would be an advantage to adopt the Dutch packing system, since this is well known by the market.

Tropical Exotics - Heliconia Species



Assortment: Heliconia: This genus is large with hundreds of hybrids, both natural and bred. The most well known species are:

Heliconia pendula
Heliconia caribea
Heliconia psittacorum

Other species in the tropical exotic assortment are:

Strelitzia (Bird of Paradise)
Alpinia purpurata (Torch lily)

Further species from this assortment imported into Germany in small volumes include Baby-banana flowers, Pineapple flowers, Bromeliad flowers, Porcelain roses and others. This range is expected to increase in the future. Most species in this assortment have rather strong colours.

Market Preferences

Most of the above species are comparatively expensive in the German flower shops, since they are often heavy, difficult to handle, and frequently have a very limited vase-life due to inappropriate handling. The market prefers hybrids with a comparatively long vase-life which are available throughout the import season. Good packaging is needed to reduce the risk of transport damage. The stems should be a minimum of 60 cm for the short species and 90 cm for the longer ones. The leaves should be enclosed in the carton. The pink variety of Alpinia is more popular than the red variety.

The above assortment is mainly used in exclusive bouquets and flower arrangements

Production

The above assortment consists of perennial species which remain productive for several years. Replanting takes place when the plants

———— Tropical Exotics - Heliconia Species ————

become too dense. They are grown in open field conditions in a tropical humid climate.

Several hybrids of Heliconias may have an identical appearance but very different vase-life, cropping season and handling delicacy. It is important to select an assortment of hybrids for commercial production which have similar appearance, vase-life and handling properties but which have different cropping seasons. This may enable the exporter to supply flowers of the same colours throughout the season.

Harvesting

The flowers are harvested in the morning and should be transported to the grading facilities immediately after harvest and put in water. It is important to be extremely careful during all manual handling of the flowers since the slightest pressure on certain varieties will result in brown marks. The flowers are harvested when the bracts are well developed and are showing their true colour but before the flowers are visible. Some species, such as *Strelitzia*, should be harvested when the bract has opened and the first flower is well developed.

Grading and Bunching

There are no set standards for grading and bunching. In general all species are graded to a stem length correlated to the species, which may vary from 60 cm for *Heliconia psittacorum* up to 1.80 m for the largest Heliconias. The most common stem lengths are between 90 and 110 cm, but each importer may have individual requirements. Each species is exported in one grade only. The flowers should be free of diseases, mechanical damage and residues and at the correct stage of maturity.

Packaging

There are no set standards for packaging and exporters use different methods, but the following details are of importance:

- Each flower needs protection from mechanical damage, either with plastic foam, soft paper, shredded paper or similar.
- Each stem should be secured in the box with tape or string and packed, usually in a single layer, with shredded paper in between the flowers.
- *Heliconia psittacorum* and *Strelitzia* are bunched in units of 10 and 5 stems to a bunch respectively and secured with a rubber band. The bunches are packed into the box with a pillow made of foam or rolled newspaper in the middle.

— Tropical Exotics - Heliconia Species —

- When the box is fully packed, the stems are secured with a foam coated wooden stick which is nailed through the sides of the box.

Boxes should be made from strong cardboard and be telescopic for extra strength. The following sizes are common for imports of Heliconia to Germany: 155 x 48 x 28 (or 14) cm, 135 x 35 x 12 cm, 110 x 48 x 12 cm and 110 x 24 x 28 (or 12) cm. The above boxes hold, depending on the species, size, etc. about 15-45 large Heliconia, 30-60 small Heliconia and about 200-300 Heliconia psittacorum, which are packed into the smaller boxes.

Cartons commonly used for Strelitzia have the following measurements: 120 x 30 x 12.5 cm which holds about 35-40 stems, and 120 x 30 x 30 cm which holds about 100-150 stems.

Cartons commonly used for Alpinium measure 105 x 50 x 17 cm and 115 x 40 x 35 cm and hold between 100 and 150 flowers. The exporter may use the same boxes as he uses for Heliconia if he is also exporting those.

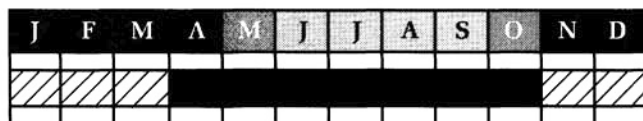
It is common to export mixed boxes, especially of Heliconia. Since these species are not major volume items on the German market it is recommended that packing units remain small.

Supply

There are no specific statistics on the imports of the above assortment to Germany and total volumes are very difficult to estimate. However, the assortment has become quite important to German flower shops for special flower arrangements and bouquets. The main supplies of Heliconias and Alpinium are imported from Costa Rica, Jamaica, Barbados, Hawaii and the Ivory Coast. Strelitzia is imported mainly from Italy, France and Spain, but minor volumes are coming from overseas exporters.

The major market opportunities are during the period November-April, and the market is very limited outside this. The assortment will probably never become a large volume product because of the comparatively high prices.

The supply and demand pattern for imported Heliconia is set out below:



Tropical Exotics - Heliconia Species

Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

The following DM C&F prices, including import duty, were reported on the German market in the 1991-1992 season:

Variety	Price in DM
Heliconia pendula	3.65
Heliconia caribaea	3.30
Heliconia psittacorum	1.25
Alpinia pupurea	2.30
Strelitzia	1.70-2.10

Successful Selling

The key to successful exports of the above assortment is careful handling, a good packaging system and an appropriate assortment in suitable packing units. It is also important to ensure good selection of planting material and hybrids so as to be able to export an assortment of similarly coloured and shaped flowers throughout the export season.

Tropical Exotics - Orchids



Assortment: The major species in the tropical orchid assortment is Dendrobium. As a result of intensive breeding many new cultivars are available. The new hybrids have longer stems, larger flowers and less seasonal cropping periods. New varieties which will be introduced to the market are expected to increase the popularity of Dendrobiums in Germany.

Dendrobium: Madame Pompadour, White Caesar, Taj Swee Keng, Tokyo, Anita, Bom, Venus, Parisienne, Diamond Pink etc.

Aranda: Norah Alsagoff, Christina no 1, 5, 27, 80, 130

Arachnis: Maggie Oei

Oncidium: Golden Showers, Giant

Aranthera: James Storei, Anne Black

Wanda: Rotschildiana

Market Preferences

The market was over-supplied with the variety Madame Pompadour from Thailand in the 1970s which resulted in low prices and depressed demand. In the 1980s more exclusive Dendrobium varieties were introduced to the market and these have become very popular. The assortment of the other species of tropical orchids has remained unchanged. Dendrobium is the most popular tropical orchid especially varieties with big, soft pink or cream flowers.

Tropical orchids are mainly used in bouquets or sold as single flowers in combination with decorative foliage. Sometimes they are combined with one or two other cut flowers, often with a characteristic design. They are also used in flower arrangements. A major market is the ready made bouquets of short Dendrobiums sold in supermarkets and food stores.

Tropical Exotics - Orchids

Production

Dendrobium, Wanda and Oncidium are grown under shade net and in hanging pots filled with charcoal. The other species are grown in open field conditions in soil enriched with coconut husk. Plant material can be purchased in Thailand, Singapore, Malaysia, the UK, the Netherlands and Australia. The pot grown varieties are usually purchased as tissue culture plants, whereas the other species are often purchased as tip cuttings. The exporter should be very careful to avoid purchasing diseased plant material.

Harvesting

Harvesting should take place in the mornings when about half the flowers on the spike are open. If too many flowers are open the lower flowers will wilt too quickly. The flowers are put in water after harvest and transported to the grading facilities.

Grading and Bunching

Dendrobiums are sorted into three grades: large, medium and short.

The short grade are often sold as bouquets comprising 2-3 Dendrobiums combined with a fern leaf in a plastic sleeve.

The large grade should have a well shaped spike, a strong stem which can support the flowers and a stem length of 50-60 cm. Medium grade should be of the same quality but have a stem length of 40-50 cm.

There are no set quality standards for the other species and they vary significantly in size depending on the species. In general, they are traded in two grades, large and medium.

The quality criteria for all species are a well shaped spike, strong stems which can support the flowers, absolute freshness and the absence of any residues and diseases.

The flowers are bunched in units of five stems to a bunch, apart from Rotschildiana which is packed as singles. The bunch is cut to the appropriate length and secured with a piece of plastic film which contains a piece of cotton drenched in water. A rubber band is placed around the base of the bunch. The bunch is placed in a plastic sleeve before packing.

Cold Storage

Tropical orchids are very sensitive to low temperatures. It is recommended that the flowers are handled in an air-conditioned atmosphere with a

Tropical Exotics - Orchids

temperature of around 20-22°C.

Packaging

There are no set standards for the boxes used for importing tropical orchids to Germany. Thai exporters often use the following system:

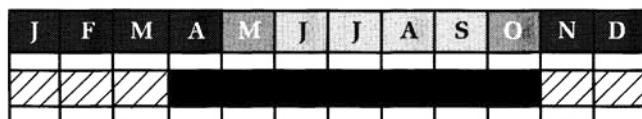
- Box size: 102.5 x 40 x 7.5 cm, with four boxes per master box.
- Box size: 82.5 x 37.5 x 7.5 cm, with four boxes per master box.

About 15-20 bunches are packed in each box depending on the box type and the species/grade. Cartons may be exported containing an assortment of grades and varieties or with one grade and one variety in the box. This should be agreed with the importer in Germany. The flowers are packed sufficiently close together to avoid any damage during transport, but not too densely. Tropical orchids are less fragile than temperate orchids.

Supply

The major exporters of tropical orchids into the German market are Thailand, Singapore, Malaysia and some re-exported Dendrobiums from the Netherlands. Tropical orchids are imported all the year with the major market opportunities from November to April. The peak cropping season for Dendrobiums in Thailand is the summer. Large volumes are exported to Germany at low prices during the slack summer season. Total imports to Germany of tropical orchids stands at about 15 million stems per year, which is about the same volume as in 1985. The new varieties of Dendrobium are expected to increase consumption in the future.

The supply and demand pattern for imported tropical orchids is set out below:



Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Cites licence is required
- Quality standards apply, but the application is liberal

Tropical Exotics - Orchids

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031015 (1 June-31 October) and 06031055 (1 November-31 May):

Period	Full	GSP countries	ACP countries	LDDC countries
1 June-31 May	20%	15%	Free	Free
1 November-31 May	15%	15%	Free	Free

Prices

Prices fluctuate significantly between seasons and are mainly influenced by the supply situation in Thailand and the market in Japan. The price also varies significantly between the different varieties and grades. The flower auctions in the Netherlands only sell small quantities of these products and, therefore, these prices can not be used as comparative prices. The C&F price recorded in Germany for shipping wholesalers in 1991-92, inclusive of import duty, was DM 0.28-0.50, depending on the grade and the variety.

Successful Selling

An attractive assortment of Dendrobiums of excellent quality is probably the most important asset to ensure successful exports of tropical orchids to the German market. The exporter should also, if possible, have access to competitive air-cargo rates. Tropical orchids are imported both by shipping wholesalers and distributing wholesalers.

Tropical Exotics - Protea Species



Assortment: The protea assortment usually includes some other species:

Protea cynaroides (King Protea)
Protea magnifica (Queen Protea)
Protea neriifolia (Minks)
Protea eximia
Protea obtusifolia
Banksia prionotes
Leucospermum cordifolia
Leucandendron discolor (Red
Sunset a.o.)

These represent wild species and hybrids originating from the sub-tropical areas in the Southern Hemisphere.

Market Preferences

These products are not large volume sellers on the German market, but they have an established market position. The large Protea varieties are sold packed separately in boxes, but the other varieties are often marketed in mixed boxes. The most popular varieties have rather soft luminous colours, which are preferred to sharp colours. The flowers should appear fresh. Protea cynaroides and Protea magnifica are the most well known species on the German market.

Production

The above assortment grows as perennial bushes in the sub-tropical areas of the Southern Hemisphere, and has been planted in the highlands (about 1600 m altitude) in tropical countries.

Harvesting

The flowers are harvested when the bracts are fully extended and semi-opened. After harvest, the flowers are brought to the grading area and put in water.

Tropical Exotics - Protea Species

Grading and Bunching

Flowers are graded into one quality only (Extra grade), and all produce with malformed bracts, damage, over-mature flowers, bent stems, leaf discolouration etc is rejected. Stem lengths vary with the species, from 15 cm to 70 cm.

The large Proteas and Banksia are packed as singles, but the other species are bunched in units of five stems to a bunch and secured with a rubber band. All species are wrapped in soft, white paper.

Cold Storage

This assortment should be handled and transported in a controlled temperature of 8-10°C. Products should be exported as fresh as possible.

Packaging

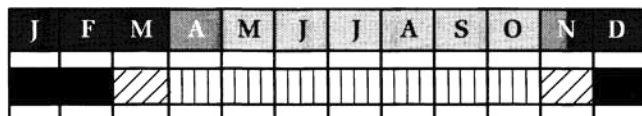
Strong, telescopic cardboard boxes are used. The flowers are packed in small units e.g. the Dutch air-box 12 (106 x 35 x 20 cm, volume/weight 12kg) or the box 15 (106 x 35 x 24 cm, volume/weight 15kg).

Supply

The major volumes are imported to Germany from South Africa, Zimbabwe, Israel, Australia and New Zealand. There are no statistics available for the total volume imported.

Due to the short cropping period, the major supply season is December to January although for some species it continues through February into March. However, a limited assortment could be made available in small quantities throughout the year, from various parts of the world. Leucandendron is available throughout the year.

The supply and demand pattern for Proteas is set out below:



———— Tropical Exotics - Protea Species ————

Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal.

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, tariff numbers 06031029 (1 June-31 October) and 06031069 (1 November-31 May):

Period	Full	ACP countries	LDDC countries
1 June-31 October	20%	Free	Free
1 November-31 May	15%	Free	Free

Prices

There are very small seasonal price variations for this assortment, especially for the heavy products, mainly because of the high freight costs. Many species are only available during the high price season. However, price differences between the various species are significant.

Successful Selling

Consumption of these products in the German market could probably be increased substantially if they were professionally promoted. Research is also required to resolve post-harvest handling problems and improve produce quality.

At present the key to successful exports into the German market is regular shipments of good quality, fresh produce in an attractive assortment. These products are being imported both by shipping wholesalers and distributing wholesalers.

— Tropical Exotics - Ornamental Foliage —



Assortment: There is a very wide assortment of tropical ornamental foliage which is being imported into Germany. The assortment can be divided into two groups:

Large volume species:

Leatherfern
Chamaedorea
Bear Grass

Small volume species:

Fishtail palm
Philodendron (several varieties)
Anthurium
Monstera
Alpinia
Heliconia
Banana
Calathea, several varieties
Washingtonia
Livistonia
Chrysalidocarpus
Cycas
Dracaena, several varieties
Pittosporum
Podocarpus
Asparagus, several varieties
Croton, several varieties
Coconut clusters
Dieffenbachia
Tree fern
Papyrus

The assortment is likely to expand as several new varieties are being tested on the market.

Market Preferences

The dominant product in the above assortment is Leatherfern, followed by the Bear Grass and Chamaedorea. Most of the small volume products are quite new on the market and this assortment has developed rapidly during the last decade.

—— Tropical Exotics - Ornamental Foliage ——

Leatherfern is very popular as a standard product, but the small volume products have become especially popular with specialist flower shops, since they enable the florist to create a much greater variety of arrangements and bouquets. The small volume products are often sold in mixed bunches, which provide the florist with a wide assortment without the commitment of purchasing large volumes. Both the range of products and demand for the small volume products are expected to increase.

Ornamental foliage is used together with various cut flowers in bouquets and in all kinds of flower arrangements and floral decorations.

Production

Ornamental foliage is produced both under shade net and in natural shade, depending on the species. Some species are also harvested from the wild. Species like Leatherfern are produced at high altitudes in tropical areas (1,000-1,500 m), and some are produced in the humid tropical climate of the lowlands. The life-span of planted motherplants depends on the species and their maintenance, but most will stay productive for 3-4 years or more.

The quality of the leaves and the production is controlled by harvesting methods. A plant which is harvested too hard will produce smaller leaves and may change colour pattern whereas plants which are harvested less frequently will produce bigger leaves. The grower must know the market preferences for each species in order to harvest correctly. There is no specific cropping season, apart from that which may be caused by climatic changes.

Harvesting

Leaves are harvested when fully developed for optimum vase-life.

Grading and Bunching

There are no set standards for grading and bunching.

Leatherfern is usually graded in three sizes, large, medium and small, of which large and medium are the major items on the German market. Leatherfern is, in general, bunched in units of 20 leaves to a bunch.

With other species even sizes should be graded into similar sizes.

They are normally bunched into units of five or ten depending on the size of the leaf. The leaves are secured with a rubber band.

— Tropical Exotics - Ornamental Foliage —

It is common to bunch the small volume products in assorted bunches of 10-30 leaves per unit, which are packed into plastic bags. This system of packing will probably become more popular in the future.

Packaging

There are no set standards box sizes for ornamental foliage. The box most commonly used for Leatherfern measures 73 x 54 x 25 cm and holds 700 large of 45-50 cm, 800 medium of 40-45 cm and 1,000 short of 30-35 cm. For other ornamental foliage, it is recommended that packing is agreed with the importer.

Cold Storage

It is necessary to handle Leatherfern in low temperatures and it may be stored for 3-4 weeks at 2-3°C. The other varieties are usually handled in an air-conditioned environment and exported as fresh as possible.

Leatherfern is mainly transported in reefer containers by boat. The other varieties are transported by air.

Supply

Imports of tropical ornamental foliage into Germany have increased and the total imports in 1990 reached 12,000 tons, up 20% from 1989. The increase due to exports from developing tropical countries. The major suppliers are the USA (Florida), Costa Rica, Guatemala, the West Indies, Ivory Coast, South Africa and Togo.

The demand follows that of cut flowers closely since these products are sold together. The market is good in October until May and slack in the summer. However, ornamental foliage is being imported into Germany on a year round schedule. Competing products are ornamental foliage produced in temperate and sub-tropical areas, such as ruscus, eucalyptus, euonymus etc. and this competition is heavy in January to March.

The supply and demand pattern for imported tropical foliage is set out below:

J	F	M	A	M	J	J	A	S	O	N	D

— Tropical Exotics - Ornamental Foliage —

Import Legislation (See Appendices 1 and 2)

- A phytosanitary certificate is not required
- Quality standards apply, but the application is liberal

Customs Tariffs (See Appendix 3)

Rates in percentage of the C&F value, customs tariff number 06039000:

Period	Full	ACP countries	LDDC countries
The whole year	15%	Free	Free

Prices

Prices fluctuate with the season to a certain extent but less for these products than for most cut flowers. Prices are usually agreed for 2-4 months. There is no clear market price as such for the majority of these products but this is expected to develop in the future. Leatherfern is a well-defined product for which there are prices. These vary with the country of origin, the quality and the grade. An average C&F price should be DM 2.25 - 3.60 per bunch.

Successful Selling

The key to successful exports of ornamental foliage into the German market is regular shipments of a good quality, attractive assortment with competitive air cargo rates. Exporters usually produce only the volume products or a section of the small volume assortment. In very few cases are all the products supplied by the same exporter. It is essential to work closely with market contacts when developing the assortment and to adjust to market requirements.

The large volume products are, in general, imported by shipping wholesalers, and the small volume products by both shipping wholesalers and distributing wholesalers.

EC Common Quality Standards for Fresh Cut Flowers and Foliage

The following notes on the European Community's common quality standards for fresh cut flowers and foliage are provided for information only. They are not intended to be a comprehensive statement of all legal requirements, but merely to give guidance to an exporter on their practical application.

Application

The standards apply to fresh cut flowers and flower buds, foliage, leaves, branches and other parts of plants suitable for bouquets, flower arrangements and ornamental purposes. The standards define the requirements for these products when they are displayed for sale, put on sale, sold delivered or otherwise marketed at the wholesale level within the Community, either by traders or directly by the producers, and when they are imported from a country outside the Community or exported to such a country.

However, quality standards are applied liberally in Germany, and it is more important to agree standards with the importer. If the importer agrees to deviations in the quality standards for products he receives, there will be no problems with a quality inspection. However, the quality standards do give the exporter good guidelines on German market requirements, and in most cases these quality standards only state the minimum requirements of German importers. It is, therefore, recommended that the EC quality standards given below are studied carefully.

Requirements

All produce must have been carefully harvested and have reached the appropriate stage of maturity for the species.

Cut Flowers

A. Classification and quality requirements

Extra Class: Produce which qualifies for Class 1, without the aid of any quality tolerance, may be marked Extra. However, this classification may not be used for standard carnations with a split calyx.

Class 1: Produce in this class must be of good quality. It must have the characteristics of the species and, where appropriate, of the variety. All parts of the flower must be:

Appendix 1

- Whole
- Fresh
- Free of animal or vegetable parasites and from damage by such
- Free of residues of pesticides and other extraneous matter affecting the appearance
- Free of development defects (a mended calyx on a carnation is not considered a development defect)
- Standard carnations with mended calyxes should, however, be packed separately in uniform lots and marked accordingly
- According to the species and variety, the stem must be rigid and sufficiently strong to support the flower.

Class 2: This class should include all produce which does not meet all the requirements of Class 1, but are:

- Whole
- Fresh
- Free of animal parasites.

The following defects may be present, providing that they do not impair the appearance, life or use of the flowers:

- Slight malformation
- Slight bruising
- Slight damage, including that caused by pest or disease
- Small marks resulting from pesticide
- Weaker and less rigid stems.

B. Quality Tolerances

Quality tolerances are permitted in each unit of presentation as follows:

Extra: None

Class 1: Up to 5% of the cut flowers may have slight defects providing the uniformity in a unit of presentation is not affected

Class 2: Up to 10% of the cut flowers may vary from the requirements of the class. Half of this percentage may have been attacked by parasites, but the damage must be sufficiently small that it does not impair the use of the flowers.

Appendix 1

C. Sizing

Cut flowers must at least comply with the size ranges given below. The stem lengths quoted include flower head.

Description code	Min. and max. stem length
0	Less than 5 cm or flowers marketed without stems
5	5-10 cm
10	10-15 cm
15	15-20 cm
20	20-30 cm
30	30-40 cm
40	40-50 cm
50	50-60 cm
60	60-80 cm
80	80-100 cm
100	100-120 cm
120	More than 120 cm

Uniformity of Sizing

The difference per unit of presentation (e.g. bouquet, bunch, box etc.) between the maximum and minimum lengths of the flowers in the unit may not exceed:

- 2.5 cm for flowers in code 15 and below
- 5.0 cm for flowers in codes 20-50
- 10.0 cm for flowers in code 60 and above.

The difference may be doubled for flowers in flat-backed bunches. For big flowered Chrysanthemums in flat-backed bunches of stem lengths corresponding to codes 20-50, the permitted variation is further increased to a maximum of 20 cm.

The size scale and uniform lengths set out above do not apply to Mimosa.

D. Presentation and Packaging

A unit of presentation (bouquet, bunch, box etc.) must consist of 5, 10 or a multiple of 10 pieces with the exception of:

- Flowers normally sold singly
- Flowers normally sold by weight
- Flowers for re-export to the USA or Canada, when this requirement may

Appendix 1

be varied to meet the trade requirements of these countries.

- Flowers for which seller and buyer agree to derogate from the provisions concerning the number of flowers in a unit of presentation. This derogation is admissible solely for transactions outside wholesale markets on condition that:
 - The flowers are the subject of a direct sale, based on a fixed selling price per unit of presentation, at wholesale level to a retailer or a person acting on behalf of a retailer.
 - The flowers are accompanied by a bill, delivery note or similar showing the above mentioned selling price.
 - The unit of presentation is in the packaging required by the buyer for the ultimate purchaser. This packaging must be such as to permit identification of the goods.

Each unit of presentation (bouquet, bunch, box etc.) must contain flowers of the same genus, species or variety, and of the same quality class, and have reached the same stage of development. Mixtures of flowers or mixtures of flowers with foliage of different genus, species or variety are, however, permitted as long as products of the same quality class are used and that they are appropriately marked.

Packaging must protect the produce adequately. Paper or other materials in direct contact with the cut flowers must be new (not treated with or manufactured with chemicals which discolour the flowers after packing and during handling).

E. Marking

The following information must accompany the goods and preferably be marked on the side or end of each container legibly and indelibly.

Identification: Packer and/or dispatcher; name and address, or officially issued or accepted code mark.

Nature of produce: Genus.
Species, variety or colour of flower. Where appropriate, 'Mixture' or equivalent term. Origin of produce; country of origin and, optionally, district where grown or national, regional or local place name.

Commercial specifications: Class size - length code or, optionally, minimum and maximum lengths, number and net weight.

Presentation: If the number of flowers per unit of presentation does not correspond to the provisions of Section D above, packages must be marked to show the exact composition of the units of presentation contained therein.

Appendix 1

Quality Standards for Fresh Ornamental Foliage

A. Description of Produce

These standards apply to fresh ornamental foliage, leaves, branches and other parts of plants for decorative use in bouquets and floral arrangements.

B. Quality Requirements

Produce must be:

- Of fresh appearance
- Free of residues, pesticides and other extraneous matter affecting the appearance
- Free of animal or vegetable parasites and damage caused by such which impair the general appearance
- Free of excessive external moisture (where appropriate)
- Typical colours for the species or variety.

Produce must be carefully harvested and have reached a sufficient stage of maturity.

C. Quality Tolerances

Quality tolerances are permitted in each unit of presentation as follows: 10% of fresh ornamental foliage may vary from the requirements listed above.

D. Marking

The following particulars must accompany the produce:

- Identification: Dispatcher and/or packer; name and address or officially issued or accepted code.
- Nature of produce: 'Fresh ornamental foliage' or genus or species.

Appendix 2

Phytosanitary Requirements

Below are listed the phytosanitary requirements for exported cut flowers and ornamental foliage to Germany. The information is for guidance only and is not intended to give all the legal aspects of the importation of cut flowers and ornamental foliage.

Produce Definition

The phytosanitary requirements given below apply to plants and living parts thereof, including seeds. Living parts of plants are considered to include:

- Tubers, corms, bulbs and rhizomes
- Cut flowers
- Branches with foliage and cut foliage

Phytosanitary Certificate

A phytosanitary certificate from the country of origin which conforms to the model appended to the International Plant Protection in Rome 1951 is required for the following species of cut flowers and ornamental foliage:

- Castanea
- Chrysanthemum
- Dendranthema
- Dianthus
- Gladiolus
- Gypsophila
- Prunus
- Quercus
- Rosa
- Silax
- Syringa
- Vitis

The phytosanitary certificate:

- Must be issued by the plant protection service in the country of origin.
- Must be issued not more than 14 days before dispatch.
- Must be made up in at least one of the official languages of the EC.
- Must be filled in, except for stamps and signature, either entirely in capital letters or entirely in typescript.
- Shall contain the botanical names indicated in Latin characters.
- Must carry the indication 'copy' or 'duplicate', stamped or in print, if it is an authenticated copy thereof.

Appendix 2

- Shall contain no erasures except when the consignment consists of growing medium; in that case the words 'described plants and plant products' will be changed to growing medium.

A copy of a phytosanitary certificate is found in Appendix 1.

Prohibited Importations

The importation is prohibited of plants and parts of plants containing the harmful organisms listed below:

A. Live organisms of the animal kingdom, at all stages of their development.

1. *Amauromyza maculosa*
2. *Arrhenodes minutus*
3. *Cacoecimorpha pronubana*
4. *Ceratitis capitata*
5. *Conotrachelus nenuphar*
6. *Epichoristodes acerbella*
7. *Helicoverpa armigera*
8. *Hyphurgopinus rufipes*
9. *Hyphantria cunea*
10. *Liriomyza huidobrensis*
11. *Liriomyza sativae*
12. *Pissodes* spp
13. *Popillia japonica*
14. *Pseudopityophtorus minutissimus*
15. *Pseudopityophtorus pruinoses*
16. *Scapiodeus luteolus*
17. *Scolytus multictriatus*
18. *Scolytus*
19. *Spodoptera littoralis*
20. *Spodoptera litura*
21. *Trypetidae* spp.

B. Organisms of the animal kingdom at all stages of their development, unless it is proved that they are dead.

1. *Heterodera pallida*
2. *Heterodera rostochiensis*
3. *Quadrospidatus permisiosus*

C. Fungi

1. *Angiosorus solani*
2. *Ceratosystis fagacaerum*

Appendix 2

3. *Ceratosystis ulmi*
4. *Chrysomyxa arctostaphylli*
5. *Cronartium comptoniae*
6. *Cronartium fusiforme*
7. *Cronartium ulmi*
8. *Endocronartium harknessi*
9. *Endothia parasitica*
10. *Guignardia loricata*
11. *Hypoxylan pruinosum*
12. *Melampsora farlowii*
13. *Melampsora madusae*
14. *Mycosphaeraella populorum*
15. *Ophiostoma roboris*
16. *Porla weirii*
17. *Synchytrium endobioticum*

Dispensations

Cut flowers and ornamental foliage may be imported if infested with the organisms listed below, provided that an import licence is obtained prior to the importation. Requests for import permits should be forwarded by the importer to the plant health authorities in Germany.

A. Live organisms of the animal kingdom, at all stages of their development

1. *Anarsia lineatella*
2. *Diarthronomyia chrysanthemi*
3. *Dithylenchus destructor*
4. *Dithylenchus dipsaci*
5. *Gracilaria azaleella*
6. *Lampetia equestris*
7. *Laspeyresia molesta*
8. *Liriomyza trifolii*
9. *Phthorimaea operculella*
10. *Radopholus citrophilus*
11. *Radopholus similis*
12. *Rhagoletis carsi*
13. *Scolytidae*
14. *Dactulosphaira vitifoliae*

B. Bacteria

1. *Corynebacterium insidiosum*
2. *Corynebacterium michiganense*
3. *Erwinia chrysanthemi*
4. *Pseudomonas coryophylli*

Appendix 2

5. *Pseudomonas gladioli*
6. *Pseudomonas pisi*
7. *Pseudomonas solanacearum*
8. *Pseudomonas woodsii*
9. *Xanthomonas vesicatoria*
10. *Xanthomonas campestris*
11. *Xanthomonas fragariae*

C. Fungi

1. *Atropellis* spp.
2. *Didymella chrysanthemi*
3. *Fusarium oxysporum*
4. *Guignardia baccae*
5. *Ovulinia azaleae*
6. *Phialophora sinerescens*
7. *Phytophthora fragariae*
8. *Puccinia horiana*
9. *Puccinia pelargonii-zonalis*
10. *Sclerotinia bulborum*
11. *Sclerotinia convoluta*
12. *Septoria gladioli*
13. *Stromatinia gladioli*
14. *Uromyces* spp.
15. *Varticillium albo-atrum*

D. Viruses and virus-like pathogenes

1. *Arabis mosaic virus*
2. *Beet curly top virus*
3. *Beet leaf curl virus*
4. *Black raspberry latent virus*
5. *Cherry leaf roll virus*
6. *Cherry necrotic rusty mottle virus*
7. *Chrysanthemum stunt viroid*
8. *Little cherry pathogen*
9. *Prunus necrotic ring spot virus*
10. *Raspberry ringspot virus*
11. *Stolbur pathogen*
12. *Strawberry crinkle virus*
13. *Strawberry latent ring spot virus*
14. *Strawberry yellow edge virus*
15. *Tomato black ring virus*
16. *Tomato spotted wilt virus*

Appendix 2

Interceptions

- Shipments that are found not to conform to phytosanitary import regulations are not accepted. These shipments are returned or destroyed after consultation with the importer. In certain cases treatment of these shipments is acceptable.
- The plant protection organisation in the country of origin will be notified of all interceptions via the 'Notification of Interception' form.

CITES Requirements

Several species of orchids are covered by provisions laid down by the Convention on International Trade of Endangered Species of Wild Fauna and Flora. Exports of orchids which are classified as 'endangered species' require a special licence which the importer should apply for in the importing country.

Appendix 3

Customs Tariffs

German tariffs on imports are governed by the Common Customs Tariff of the European Community.

The EC has a number of preferential trade agreements with certain individual countries or groups of countries outside the EC. All of the developing countries belong to one or more of these groups, and are, as such, entitled to reduced and, in most cases, zero tariffs on imports of cut flowers and ornamental foliage into Germany. Applicable rates are given in the product profiles.

Given below is a list of relevant preferential trade groups showing those Commonwealth countries, as well as other countries, which are members of the group and are eligible for preferential customs duties. In order to benefit from the reduced customs tariffs from the above trade groups, the exporter must obtain and complete either a EUR 1 form for the ACP group, or an "A" form for the GSP and LDDC groups. These forms can be obtained from the Ministry of Trade or the Chamber of Commerce in the exporting country. Alternatively, the importer should be able to offer assistance in acquiring them.

ACP: African, Caribbean and Pacific Group.

GSP: Generalised System of Preferences Group.

LDDC: Least Developed Developing Countries Group.

List of the Tariff Status of Commonwealth and Major Horticultural Exporting Countries from the Developing World.

Country	ACP	GSP	LDDC	Country	ACP	GSP	LDDC
Algeria		•		Congo	•	•	
Angola	•	•		Costa Rica		•	
Antigua and Barbuda	•			Cuba		•	
Argentina		•		Cyprus		•	
Bahamas	•	•		Dominican Republic		•	•
Bangladesh		•	•	Dominica	•		
Barbados	•	•		Egypt		•	
Belize	•	•		Ethiopia	•	•	•
Bhutan	•	•		Fiji	•	•	
Botswana	•	•	•	Gabon	•	•	
Brazil		•		Gambia	•		
Cameroon	•	•		Ghana	•	•	
China		•		Grenada	•	•	
Colombia		•		Guatemala		•	

Appendix 3

Country	ACP	GSP	LDDC	Country	ACP	GSP	LDDC
Guinea	•	•		Samoa			
Guinea Bissau	•	•	•	Western	•	•	•
Guyana	•	•		St Kitts	•		
Haiti		•	•	St Lucia	•		
Honduras		•		St Vincent	•		
Hong Kong		•		Senegal	•	•	
India		•		Seychelles	•		
Indonesia		•		Sierra Leone	•	•	•
Ivory Coast	•	•		Singapore		•	
Jamaica	•	•		Solomon			
Kenya	•	•		Islands	•	•	
Kiribati	•	•		Somalia	•		
Lesotho	•	•	•	Sri Lanka		•	
Madagascar	•			Sudan	•	•	•
Malawi	•	•	•	Surinam	•	•	
Malaysia		•		Swaziland	•	•	
Mali	•			Tanzania	•	•	•
Mauritius	•	•		Thailand		•	
Mexico		•		Togo	•	•	•
Morocco		•		Tonga	•	•	•
Mozambique	•	•		Trinidad/ Tobago	•	•	
Nicaragua		•		Tuvalu	•		
Nigeria	•	•		Uganda	•		
Papua New Guinea	•	•		Zaire	•	•	
Peru		•		Zambia	•	•	
Rwanda	•			Zimbabwe	•	•	

Appendix 4

Useful Addresses

**Niederrheinische
Blumenvermarktum e.G.
(NVB Flower aution)**
Hammer Landstrasse 103
D - 4043 Neuss

Tel: 02101 1871
Telex: 8517635 nbvt d

**Bundesverband der
Deutschen Gross- und
Aussenhandel
(Federal Ass. of German
Wholesalers and Foreign
Trade)**
Postfach 1349
Kaiser Friedrich Strasse 13
D - 5300 Bonn

Tel: 0228 26004-0
Telex: 886783
Fax: 0228 26004-55

**Verband des Deutschen
Blumen -Gross- und
Importhandels e.V.
(Flower Wholesalers and
Importers Trade
Association)**
Julicher Strasse 32
D - 4000 Dusseldorf 30

Tel: 0211 441388
Telex: 8586905
Fax: 0211 482647

**Market News Services
MNS**
International Trade
Centre UNCTAD/GATT
Rue de Monbrilland 54-56
1211 Geneva
Switzerland

Tel: 022 7300111
Telex: 289466 mns ch

**UGA Niederrhein GmbH
(Flower auction)**
Hans - Tenhaeff - Strasse 44
D- 4172 Staelen

Tel: 02834 7010
Telex: 812223 ugast d

**Deutsche
Entwicklungsgesell-
schaft (DEG)
(German Finance
Company for
Investments in
Developing countries)**
Belvederestrasse 40
D - 5000 Koln 41

Tel: 0221 4986-1
Telex: 8881949
Fax: 0221 4986290

**Bundesstelle für
Aussenhandels-
information (BFAI)
(Federal Office for
Foreign Information)**
Blaubach 13
P.O. Box 108007
D - 5000 Koln 1

Tel: 0221 5057-1
Telex: 882735

**MAJOR IMPORTERS OF
CUT FLOWERS AND
ORNAMENTAL FOLIAGE**

**IRT - International Rose
Trading Blumen -
Import GmbH**
Wolfratshauer Strasse 73
8023 Pullach

Tel: 089 7932011
Fax: 089 7938398

**Eberhard Gumz
Blumen-Import
Blumengrossmarkt**
Friedrichsstrasse 18
1000 Berlin 61

Tel: 030 2517200
Fax: 030 2516633

Wilhelm Peters GmbH
Blumengrosshandel
Lippelstrasse 1
2000 Hamburg 1

Tel: 040 337244/45
Fax: 040 327350

**Blumen Becker
Gartenbau -
Grosshandel**
Gravenbruchring 165
6078 Neu-Isenburg

Tel: 06102 38077/78
Fax: 06102 3265

Finger Rosen GmbH
Blumengross- und
Importhandel
Rudolfstrasse 2
6239 Kriftel/Taunus

Tel: 06192 43027
Fax: 06192 43029

Blumen Weber GmbH
Blumengrosshandel
Siedlungsstrasse 15
6635 Schwalbach-
Hulzweiler

Tel: 06831 54546
Fax: 06831 58190

Appendix 4

Danners GmbH

Blumengrosshandel
Bittermarkstrasse 51 a
4600 Dortmund-
Bittermark

Tel: 0231 732335
Fax: 0231 736889

Giovanni Semeria Floristen Einkauf GmbH

Langebeckstrasse 15
5800 Hagen 1

Tel: 02331 80080
Fax: 02331 800844

Reinhard Thiele Blumen-Import- Grosshandlung

Am Stadtgraben 37

Tel: 05258 8853
Fax: 05258 4522

Paul Kwoka Blumenimport

Einselestrasse 3
8300 Landshut

Tel. 0871 65058
Fax. 0871 68931

Gunter Hoffie Blumen-Import

Blumengrossmarkt
Friedrichsstrasse 18
1000 Berlin 61

Tel: 030 2516474
Fax: 030 2510546

Uniflora, Fritz Tempelhof Blumengross- und Importhandel

Bergmannring 11
2000 Hamburg 74

Tel: 040 6550011
Fax: 040 6516206

Everflora GmbH

Frankfurter Strasse 85-87
6096 Raunheim

Tel: 06142 42061-63
Fax: 06142 44618

Multiflor Blumenimport GmbH

Am Aspenhaag 7
6092 Kelsterbach

Tel: 06107 4010/4016
Fax: 06107 5877

Florimex GmbH

Am Grunen Weg 5
D - 6092 Kelsterbach

Tel: 06107 4090
Telex: 417710 fxze d

Gunther Langer GmbH & Co KG

Blumengrosshandel und
Importhandel
Stadtwaldstrasse 703
4050 Monchengladbach 5

Tel: 02166 31548
Fax: 02166 37675

Straelener Blumenhandel Heinz Kammann & Co. KG

Karl-Arnol-Strasse
Postfach 29
4172 Staelen

Tel: 02834 6041
Fax: 02834 6048

MEDIUM SIZE IMPORTERS OF CUT FLOWERS AND ORNAMENTAL FOLIAGE

Ottmar Dietter Blumengrosshandel

Tubinger Strasse 33
7404 Ofterdingen

Tel: 07473 7380
Fax: 07473 22993

Hans Kiesel Import- und Grosshandel

Mercedesstrasse 2
7953 Kernen

Tel: 07151 41039
Fax: 07151 41045

M. Vahldiek

Schnittblumenvertrieb
Im Erlengrund 3
7120 Bietigheim-
Bissingen

Tel: 07142 3986/87
Fax: 07142 3888

Biallass Blumenvertriebs GmbH & Co. KG

Am Moosfeld 13
8000 Munchen 82

Tel: 089 429106
Fax: 089 429108

Hans Grossmann KG Blumen Import

Eggenfelder Strasse 54
8000 Munchen 81
Tel: 089 9304355
Fax: 089 9304534

Wenning Blumen GmbH

Eggenfeldener Strasse 94a
8000 Munchen 81
Tel: 089 931021
Fax: 089 931024

Appendix 4

Bernd Prokop
Blumengrosshandel-Import

Blumengrossmarkt
Friedrichsstrasse 18
1000 Berlin 61

Tel: 030 2519907
Fax: 030 8055269

Werner Buuck
Blumengrosshandel-Import

Dorferbogen 72
2050 Hamburg 80

Tel: 040 7373366
Fax: 040 7373801

Joachim Lahmann
GmbH & Co. KG

Blumen-Import-
Grosshandel
Clueser Strasse 14
2808 Syke 3

Tel: 0421 550287
Fax: 0421 531422

Udo Sommer
**Blumengross- und
Importhandel**

Neuengammer
Hausdeich 109
2050 Hamburg 80

Tel: 040 7232303
Fax: 040 7232243

Bigi GmbH & Co
Blumenhandels KG

Blumengross- und
Importhandel
Sanduswg 16
6301 Wettenberg 1

Tel: 0641 82065
Fax: 0641 82155

Hulco-Blumen
Import-Export GmbH
Offenbacher Landstrasse 70
6000 Frankfurt/M 70

Tel: 069 612038
Fax: 069 620018

Bernd Kohler
**Schnittblumen-
Grosshandel**
Gottlieb-Daimler-Strasse 23
6800 Mannheim

Tel: 0621 447022
Fax: 0621 444649

L.E.A. Flor GmbH
Blumengross- und
Importhandel
Rheinstrasse 13-23
6234 Hattersheim 3

Tel: 06190 8571-73
Fax: 06190 8574

Helmuth Steffen C.W.
Blumengrosshandel
Clamecystasse 15
6460 Gelnhausen

Tel: 06051 17002-03
Fax: 06051 15964

H. Danielmeyer
Blumengrosshandel
Spengerstrasse 107
4904 Enger

Tel: 05224 3063
Fax: 05224 6540

Heinz Helling
Blumengrosshandel
Jagerskamp 77
4422 Ahaus/Westfalen

Tel: 02561 67147/67040
Fax: 02561 41076

Alexander May
Cut & Pot
Blumengrosshandel
Tiergartenstrasse 22 a
5040 Bruhl

Tel: 02232 48279

Tropenflora Import
GmbH & Co. KG
Tropical Flowers
Borsigstrasse 5
4030 Ratingen 1

Tel: 02102 475013
Fax: 02102 473932

Winklehorst & Co
Blumengrosshandel-
Import
Gruner Weg 2
4250 Bottrop-
Kirchhellen

Tel: 02045 2016/17
Fax: 02045 5571

Franz Dreher
Blumenimporte
Gewerbestrasse 7
7858 Weil am Rhein 5

Tel: 07621 6086
Fax: 07621 65553

Florentine Munz
Blumenvertrieb GmbH
Heinrich-Kuderli-Strasse 1
7050 Waiblingen

Tel: 07151 1728-0
Fax: 07151 172888

CWV Blumen Weller
Import Grosshandel
Marktplatz 4
7130 Mulacker

Tel: 07041 3008/09
Fax: 07041 45646

Appendix 4

Fancy Blumen Import GmbH

Osterweg 21
8939 Wiedergeltingen

Tel: 08241 3085

Fax: 08241 3084

Tropiflora

Blumenhandels GmbH
Obere Hauptstrasse 10 b
8057 Eching

Tel: 089 31951186/88

Fax: 089 3191114

Team-Flor Darwitz & Co.

Blumengrosshandels GmbH

Blumengrossmarkt
Friedrichsstrasse 18
1000 Berlin 18

Tel: 030 2516397

Fax: 030 2515232

Peter Skowasch

Blumengrosshandel
Blumengrossmarkt
Friedrichsstrasse 18
1000 Berlin 61

Tel: 030 2514504

Fax: 030 2512010

Jens Kiel GmbH

Blumengrosshandel
Am Nordkreuz 14-16
2902 Rastede-Wahnbeck

Tel: 04402 1030

Fax: 04402 83798

Heinz Richter GmbH

Blumengross- und
Importhandel
Roetenweg 37
2105 Seevetal 2

Tel: 04105 40346

Fax: 040 330900

Rudolf Weck

Blumen-Import
Blumengrossmarkt
Bankstrasse 28
2000 Hamburg 1

Tel: 040 335236

Floratex GmbH

Blumen Im- und Export
Flughafen Gebaude 458
6000 Frankfurt/M 75

Tel: 069 6904511

Fax: 069 6902685

Kenya Flowers GmbH

Am Aspenhag 6
6092 Kelsterbach

Tel: 06107 76010

Fax: 06107 760122

Kurhessen Blumen GmbH

Blumengross- und
Importhandel
Nussbaumweg 6
6430 Hersfeld

Tel: 06621 61455

SBI-Schnittblumenimport

Hugenottenallee 170
6078 Neu-Isenburg

Tel: 06102 4132-34

Fax: 06102 27095

Bernhard Cornelje

Blumengrossvertrieb
Ulmenstrasse 275
4000 Dusseldorf 30

Tel: 0211 426244

Gunter Ebert GmbH

Blumengrosshandel-
import
Zeissstrasse 16
5014 Kerpen

Tel: 02237 52011

Fax: 02237 52879

Heinz Kammann GmbH & Co. KG

Blumengrosshandel und
Import
Hulser Strasse 47
4152 Kempen

Tel: 02152 4081

Fax: 02152 4083

Tropenblumen GmbH

Tropical Flowers
Gewerbestrasse Sud 72
5140 Erkelenz

Tel: 02431 74077

Fax: 02431 74270

Konrad Willeke Blumengesellschaft mbH & Co. KG

Marienstrasse 43
4793 Buren-Steinhausen

Tel: 02951 3132

Fax: 02951 6350

General Guidelines on Harvesting, Post-harvest Handling and Transport of Fresh Cut Flowers and Ornamental Foliage

Harvest and Transport to the Grading Facilities

An exporter of cut flowers and/or ornamental foliage must have access to adequately sized grading facilities which are equipped with cold storage facilities or an air-conditioned store room, whichever is applicable, which is large enough to contain the volumes produced. The cold store should be equipped with a pre-cooling unit to enable rapid cooling of the flowers after packing.

Almost all flowers should be harvested in the mornings and/or in the late afternoon, since flowers harvested at midday usually have a short vase-life.

All flowers must have reached a certain maturity prior to harvesting, not only for physiological reasons but also for transport and marketing reasons. The importer requires a cut flower which is not too mature but ready for sale. Flowers which have been harvested prematurely do not, in general, open well in water, and flowers which have been harvested too late attract less market interest. In both cases, the flowers will lose their market value upon arrival in the target market. The appropriate harvesting stage varies from species to species and even from variety to variety, but the general rule is that flowers are harvested at a stage from which they can develop correctly without the aid of any special treatment.

Some species e.g. Gypsophila, Roses, show difficulty in water-uptake, especially if they have been without water after harvesting. These flowers should be placed in water in the greenhouse immediately after harvesting.

To prevent the vascular system of the stems being blocked by fungi and bacteria, thus reducing water-uptake, buckets should be cleaned every day with a detergent and clean water should be used. The use of flower preservatives prevents fungi and bacteria growth. Some species must be placed in the cold store immediately after harvest, while others will need treatment with a flower preservative prior to cooling.

Flower Preservatives

The use of flower preservatives has increased dramatically during the last decade and has improved the vase-life of many cut flowers. Flower preservatives usually contain several ingredients. Since different species have specific requirements, several mixtures are available on the market. The main ingredients are the following:

Appendix 5

- **Bactericide and fungicide:**
A bactericide containing a chlorine compound will keep the water free from fungi and bacteria, and so keep the vascular system free of these organisms and functioning.
- **STS; Silverthiosulphate:**
Ethylene gas, which is produced by flowers, fruits and vegetables, is very harmful to many species of cut flowers, even in small concentrations, and treatment with STS or with MIX will result in a much higher tolerance. Cut flowers should never be stored or transported with ethylene-producing fruits and vegetables.
- **Carbohydrates:**
If cut flowers are to develop correctly with the consumer, they must be fed well with sugar (carbohydrates). Experiments have shown that carbohydrates, especially if given to the flowers immediately after harvest and throughout their life-span, increase the vase-life significantly.
- **Growth Regulators:**
For some species the normal growth processes after harvest accelerate maturity which results in a shorter vase-life and yellowing leaves. Growth regulators inhibit these effects.

Packing

Packing is done in three stages: bunching, wrapping or sleeving and packing. Each operation must be carried out with extreme care.

- **Bunching:**
Each bunch must contain the exact number of flowers or leaves stipulated. The flowers should be assembled into a bunch without sustaining damage, secured with a rubber band and cut to an appropriate length.
- **Wrapping or sleeving:**
Each product section contains recommendations on whether to wrap or sleeve the bunches. Most flowers in Germany are handled in sleeves of polyethylene which present them attractively. However, many exporters in overseas areas may have problems with condensation in the plastic sleeves, which will result in damage to the flowers. In those cases it is preferable to wrap the flowers in soft, white paper.
- **Packing:**
The wrapped or sleeved bunches should be placed in the export box so as to utilise the space to a maximum, without damaging the flowers. For

Appendix 5

most species, it is necessary to secure the flowers in the box with a foam coated wooden stick, about 2.5 x 2.5 cm, which is pressed on top of the lower part of the bunches and then nailed with a metal disc through the sides of the box. Some exporters use a strong rubber band instead, which is secured to two plastic hooks which are pierced through the sides of the box.

For delicate flowers, the ends of the boxes are covered with a layer of shredded paper to protect the blooms.

The boxes can be insulated with polystyrene sheets, newspaper or foam plastic during cold periods in the country of destination.

Pre-cooling

As soon as the flowers are packed they should be cooled to the optimum storage temperature for the particular species. The use of a pre-cooling unit enables the grower to cool the boxes to the adequate temperature in less than an hour, and several boxes are cooled simultaneously. The system operates as follows. The pre-cooling unit is installed inside the cold store. Export boxes for pre-cooling should have 1-2 holes in both ends of the box. The boxes are stacked close to a frame designed for e.g. 15 boxes, through which a fan sucks the cold air in the cold store through the boxes. With an airspeed of about 1.5 m per sec., the flowers are cooled to the appropriate temperature within an hour, after which they are removed and a new lot is pre-cooled. It is important to have about 85% humidity and a correct airspeed or the flowers may become damaged.

Shipping

It is essential for an exporter to have a good marketing organisation and a good relationship with his customers. His customers should also be well organised. In this way the flowers can be dispatched swiftly from the country of origin and the import handling dealt with quickly and smoothly.

Air-cargo space

The exporter should make sure that the shipment is booked all the way through to its final destination, preferably on a direct flight.

Shipping documentation

Prepare all documents in advance i.e. phytosanitary certificate, invoice, EUR 1 or 'A' or GSP certificates and obtain the Air Way Bill-number from the shipping agent.

Appendix 5

Send shipping information

Inform the importer of the following, either by fax or telex, as soon as the booking is confirmed:

- Shipping date
- Flight number, all the way to the destination
- Air Way Bill number
- Number of boxes
- Weight
- Contents of the shipments

The above information is vital to the importer and his clearing agent.

Transport to the airport

Good quality flowers can be completely destroyed during the journey from the farm to the airport. To avoid this the exporter should ensure that:

- Boxes are handled properly i.e. they should not be thrown, dropped or turned upside down.
- Boxes are kept at the correct temperature during transportation. An air-conditioned or refrigerated truck should be used depending on the temperature requirements of the flowers transported. If the distance is short, an insulated truck may be adequate.
- The boxes should not be left in the sun at the airport even for a short period. If possible they should be kept in a cold store until loaded on the air carrier. If that is not possible, the truck should wait at the airport until the boxes can be loaded directly from the truck on to the aeroplane.

Appendix 6

Market Information and Cost Calculation

Most cut flowers and ornamental foliage are imported into Germany on fixed C&F or FoB prices. The system for this is very different to that used for other horticultural products such as fruit and vegetables. For most products there are unofficial market prices, which are often, but not necessarily, correlated to the prices on the major flower auction in the Netherlands, VBA in Aalsmeer.

Market Information

The importer should, under normal circumstances, provide the exporter with market information. Prices are usually set for periods of 1-2 months, and agreed between the exporter and the importer taking into account the actual and expected market situation. Pricing is always very difficult for an exporter since he is away from the market and must trust his customer for accurate information. For this reason it is advisable to export to more than one customer in order to receive market information from more than one source. Price and market information can also be obtained in other ways, as described below.

Auctions

Actual information on prices and volumes at the major auctions in the Netherlands is published every week in the flower magazine *Wakblaad voor de Bloemisterij*. These prices are very relevant to the German market, since half the volume sold at the auctions in the Netherlands is re-exported to Germany. The German auctions are by comparison so small that their prices are of little interest to the whole market development in Germany.

However, the prices from the auctions only represent average prices, and can only give guidance on tendencies and volumes. The price variations within a specific species on a specific day are significant with regard to quality and grade. Both local production and imported flowers are included in the average figures from the auctions. This means that winter prices are interesting for a overseas exporter, since they represent a large percentage of imported flowers, whereas spring, summer and autumn prices are less reliable.

ITC

The International Trade Centre, Geneva, Switzerland, has a section called Market News Service (MNS), to which an exporter can subscribe and obtain both wholesale prices from the German market and prices at the auctions in the Netherlands, weekly. This information can be obtained by mail, fax or telex.

Appendix 6

The MNS gives sales prices from importer to wholesaler, and the exporter must calculate the FoB price by deducting the importer's profit margin, customs duty, clearance costs and freight costs in order to compare the information with his own prices.

Freight costs

Cut flowers and ornamental foliage often qualify for preferential (commodity) air-cargo rates and a minimum load is often stipulated in order to benefit from these. These minimum loads may vary from country to country, but are usually 500 or 1,000 kg. If a company is too small they will not reach these break points. In countries where these rates are not established, they can be negotiated with the air carrier. It is important for an exporter to find out what exporters in competing countries pay for their shipments, in order to establish his competitiveness on the market.

The exporter must also find out if a volume or weight rate is applied to his cargo, because this will affect transport costs significantly. A box of flowers may weigh as little as 5 kg, but have a volume rate of 13 kg which will almost triple his transport cost per flower.

Import costs

Preferential tariffs are granted to countries classified as ACP or LDDC group and often to those classified in the GSP group. The difference between incurring a customs duty of 15-20% on the C&F value of the flowers and benefitting from zero customs duty is often the difference between a profitable project and a non-profitable project. The customs duty is payable by the importer but will affect the final price and the FoB price will be adjusted accordingly. The exporter should also investigate if the other countries of origin of the same product are also exempt from import duty as this will help him to establish his own competitiveness on the market.

Handling Complaints

The importer will, in general, make claims for the following reasons:

- If the quality delivered does not correspond to agreed standards.
- If the assortment delivered does not correspond to agreed orders or to the invoice.
- If the quantity delivered does not correspond to the invoice or to agreed orders.
- If the produce is damaged during handling, either in the country of dispatch or during transport, due to poor cartons etc.
- If the shipment is delayed due to the late arrival of the aircraft, inadequate warning, improper documentation, etc., which means that the produce must either be sold at reduced prices or discarded.

Claims are always very sensitive issues which involve a great deal of trust between the exporter and the importer. It is recommended that the conditions of sale established by the Association of German Flower Wholesalers and Importers are applied (see Appendix 8). If an importer makes claims regularly, and if the efforts of the exporter to rectify his handling practices do not result in fewer claims, the exporter should change importer.

In order to cope with the above problems, the following is recommended:

- If the damage is caused by delayed aircraft, by delayed transfer of the shipment or by excessive temperatures during transit handling, the air carrier is usually liable. However, there may be problems with obtaining payment and it is recommended that the conditions of transport and liability are settled prior to embarking on regular shipments.
- If produce quality, assortment or volume/prices do not comply with agreed orders, if packaging quality or post-harvest handling are inadequate, if the documentation for the shipment is inadequate or if the exporter fails to alert the importer to the arrival of the shipment, the exporter should negotiate a suitable solution of the problem with the importer.

It is vital that the importer informs the exporter of the exact reason for the claim so that the exporter can rectify any problems for future shipments. In general, claims should be made within 24 hours of the arrival of the produce (see Appendix 8)

Most claims can be avoided if there is a good relationship between the exporter and the importer. However, it is recommended that the exporter organises his operation in such a way that claims for quality and/or mistakes and misunderstandings cannot occur. If the importer and the exporter do not

Appendix 7

agree about the magnitude and/or the reasons for a claim, the exporter can demand that an independent inspection of the merchandise is carried out in Germany, and that he receives a certificate of that inspection. Given below is a list of inspectors of cut flowers and ornamental foliage in Germany:

Baden-Württemberg:

Hans-Peter Enderle
Im Hasebusch 9
7700 Singen-Hohentwiel

Tel. 07731 62041

Jörg Schelling
An der Rossweid 26
7500 Karlsruhe

Tel. 0721 615089

Eugen Hornung
Kornwestheimer Str. 89
7012 Fellbach-Oeffingen

Tel. 0711 515093

Karl-Dieter Trappmann
Heckerstrasse 41
7800 Freiburg/Brsg

Tel. 0761 43594

Bayern:

Hans Grossmann
Eggenfeldener Str. 54
8000 München 81

Tel. 089 223155

Nürnberg:

**Bruno Beinlich c/o
Florimex GmbH**
Ostendstrasse 132
8500 Nürnberg

Tel. 0911 590023

Niederbayern:

Paul Kwoka
Einselestrasse 3
8300 Landshut/Bayern

Tel. 0871 63139

Hamburg, Bremen and Schleswig-Holstein:

O.F.C. Becker
Högerdam 18
2000 Hamburg 1

Tel. 040 233996

**Uwe Kohlbus c/o
Peters GmbH**
Lippelstr.1
2000 Hamburg 1

Tel. 040 337244-45

**Fritz Tempelhof
(only ornamental
foliage)**
Bergmannring 11
2000 Hamburg 74

Tel. 040 6550011

Hessen, Rheinland- Pfalz and Saarland:

K.H. Becker
Gravenbruchring 165
6078 Neu-Isenburg

Tel. 06102 38077-78

Helmut Steffen
Clamecystrasse 15
6460 Gelnhausen

Tel. 06051 17003

Emil Weber
Siedlungsstrasse 15
6635 Schwalbach-
Hülzweiler

Tel. 06831 54546

Nordrhein-Westphalen:

Heinz Helling
Jägerskamp 77
4422 Ahaus/Westphalen

Tel. 02561 6040/
67147

Romano Semeria
Langenbeckstrasse 15
5800 Hagen 1

Tel. 02331 8008

Reinhard Thiele
Am Stadtgraben 37
4796 Salzkotten

Tel. 05258 8853

Appendix 8

Conditions of Sale for the International Wholesale Trade in Cut Flowers, Fresh Foliage and Ornamental Plants

Conditions of sale recommended by the German Flower Wholesalers and Importers Association:

Article 1: Scope

The following General Terms and Conditions are applicable to the international wholesale trade in cut flowers, fresh foliage and ornamental plants, except in so far as commission sales are concerned. The parties are free to make divergent agreements (where possible, in written form).

Article 2: Sales Contract

- The sales contract is not required to have any specific form.
- A contract is made by express acceptance of order on the part of Seller in a manner which is customary in the trade.
- Any promises made by agents and outside intermediaries shall be binding upon the Seller only if and when they have been expressly confirmed by the latter.

Article 3: Quality Standards

The products specified under Article 1 above must meet the quality standards applicable in Germany.

Article 4: Phytosanitary Measures

Seller must satisfy all phytosanitary requirements applicable to the merchandise in Germany.

Article 5: Prices

Generally, prices are determined when placing the order. Price increases without prior consent are inadmissible.

Should Seller be unable to supply the specified quantity and quality of merchandise at the agreed price, he must notify Buyer of this. In case Buyer subsequently wishes to adapt his order, a new order or new agreement shall take effect.

Appendix 8

Article 6: Excess and Short Delivery

Buyer may refuse to accept delivery of excess quantities. He must inform Seller of this by telex/fax. The telex/fax report must give details of when, where and within which period (maximum of 3 days) the excess quantity delivered can be restored to Seller's disposal.

Seller and Buyer may reach an agreement as to whether the excess quantity supplied is to be utilised on a commission basis or otherwise.

If Seller is unable to supply the merchandise ordered, he is entitled to reduce the same accordingly. However, he undertakes to inform Buyer of the extent of the reduction early enough to allow alternative supply arrangements to be made.

If for any reason whatsoever Seller intends to augment his consignment, he must obtain Buyer's prior consent before shipping the merchandise. The merchandise ordered must be accepted by Buyer at the agreed date and time. In the event of failure to accept the merchandise ordered on Buyer's part, Seller shall be entitled to otherwise sell it for the best possible price and to demand that Buyer make up the difference of any lower proceeds received.

Article 7: Packing

- Packing shall be of the type customary in the flower and plant wholesale trade and at the discretion of Seller as prudent businessman, save otherwise agreed.
- Non-returnable packaging shall be charged at cost price.
- Seller is entitled to charge Buyer, as a separate invoice item, for the use of returnable packing and other durable packing materials (cardboard boxes, containers, stacker trolleys etc.).
- Any deposits charged shall be offset once the materials have been returned in perfect condition at no charge to Seller.
- If the purchase order specifies "frost-resistant packing", Seller shall undertake to observe this requirement unconditionally and continue to supply merchandise in frost-resistant packing until such time as this type of packing is cancelled.
- The packaging materials and the manner in which they are treated must comply with the regulations in Germany.

Appendix 8

Article 8: Shipping

- Loading and shipping operations shall be performed in the due and proper manner. Seller may only be held liable for damage incurred prior to acceptance of merchandise by the forwarding agent.
- Where shipment is carried out by means of Seller's own truck, Seller shall be liable for any damage incurred prior to acceptance of merchandise by Buyer.
- The mode of shipment (rail, air, road ocean carrier) shall be agreed by Buyer.
- Where Buyer does not stipulate any particular mode of transportation, Seller shall select the type of shipment most commonly used.

Article 9: Freight and Other Charges

Freight charges, customs duties, the cost of phytosanitary tests and quality control in Germany shall be borne by Buyer, save otherwise agreed.

Article 10: Delivery

- If delivery has been agreed for a fixed date and time, it shall be effected at that date and time.
- If, in case of successive delivery, payment is not made within the specified period due to fault on the part of the Buyer, further deliveries shall be suspended until such time as payment is made. Buyer must be notified of this early enough to allow alternative supply arrangements to be made.
- If delivery can not be made or accepted on account of force majeure, Seller must inform Buyer, or where appropriate, Buyer must inform Seller, of the circumstance by telex/fax or telegram (by telephone confirmed in writing) early enough to allow Buyer to make alternative supply arrangements, or Seller to make alternative dispatch arrangements where possible.
- In the event of force majeure, the party subject to force majeure is entitled to cancel the contract.
- Force majeure shall be constituted by any situation beyond Seller's or Buyer's direct sphere of influence by reason of which performance of the contract can no longer reasonably be expected, such as strike, fire, extreme weather conditions or government action.

Appendix 8

Article 11: Payment and Retention of Title

- Save as otherwise agreed, payment shall be made net cash on delivery through payment or transfer instruction to a bank or giro account to be specified by Seller, such that the latter may dispose of the money at the latest on the 30th day after invoice date.
- Seller is entitled to charge 1.5% monthly interest on Buyer's arrears with effect from the due date up to receipt of the full payment amount.
- Buyer shall be in default by simply allowing the agreed date of payment to elapse; no special notice of default is required. In any such case, Buyer shall cover all costs incurred, whether of a judicial or extrajudicial nature.

Article 12: Place of Performance

- The place of performance for delivery shall be the point of departure; should the services of a forwarding agent be engaged, the place of performance shall be the latter's point of departure.
- Should shipment be effected by means of Seller's own truck, the place of performance shall be constituted by Buyer's place of destination.
- The place of performance for payments shall be Seller's place of business or, in the absence of any place of business, Seller's place of residence.

Article 13: Deficiency Claims

- Complaints relating to apparent defects on products delivered should be lodged with Seller by telex/fax or telegram immediately upon discovery or at the latest 24 hours after receipt of merchandise. Any complaints filed by telephone must be confirmed by Buyer in writing within a period of 3 days of receiving the merchandise.
- Complaints relating to hidden defects on products delivered should be lodged with Seller immediately upon discovery and in any event submitted to Seller in writing early enough for the latter to verify or arrange for verification of the complaint on site or recall the merchandise.
- Complaints should contain:
 - a) a detailed and accurate description of the defect;
 - b) a statement of facts proving that the products delivered are identical with those rejected by the Buyer.

Appendix 8

- Complaints relating to only part of the delivery shall not constitute grounds for rejecting the entire delivery.
- On expiry of the periods specified above, no deficiency claim may be asserted.

Article 14: Procedure Subsequent to Deficiency Claims

- If following complaint of shipment pursuant to Article 13 the parties fail to reach an immediate amicable agreement, Buyer undertakes to engage the services of an approved expert for the purpose of preparing an expert's report.
- Said expert's report shall be prepared in accordance with the following principles which are binding upon expert:
 - a) Seller or his duly authorised representative must be immediately notified of the place and time of the expert's appraisal. Both parties may be present during the appraisal but not while the expert prepares his report. They shall be entitled to a hearing during the appraisal but have no right of intervention in the preparation of the expert's report.
 - b) Should the availability of an expert's report of shipment be noted in the bill of lading or invoice, or otherwise made known, both parties undertake to submit this report to the expert. The latter shall include in his own report a statement to the effect that a previous expert's report has been presented to him. Should the expert arrive at a result other than that specified in the shipment or export report, he must substantiate his divergent result, wherever possible furnishing corroborating evidence.
 - c) The expert may neither buy nor sell the merchandise appraised by him.
 - d) The expert shall, among other things, determine whether the defects which form the subject of complaint can be remedied by means of reassignment.
- If the claim is justified, the cost of the expert's report shall be borne by Seller, or by Buyer if it is not. These costs shall in any event be advanced by the Buyer.
- If the claim is justified, Buyer shall be entitled to diminution (reduction of purchase price), rescission of contract (cancellation of sale) or compensation of damages.
 - a) In the case of reduction of purchase price, the reduced value shall be reimbursed. The reduced value shall be computed in accordance with the following principles:

Appendix 8

Reduced value is defined as the difference between the value of merchandise complying with contractual stipulations and the actual value of the merchandise delivered, irrespective of the market situation. Reduced value also covers the corresponding share of forwarding charges and customs duties demonstrably incurred by Buyer.

- b) Should Buyer wish to exercise his right of cancellation of sale, he must notify Seller of this by telephone or other means customary in the trade within the time limit for submission of deficiency claims, demanding that the Seller otherwise dispose of the merchandise. Should no such alternative disposition be effected in the case of other merchandise by noon of the following day, or, in the case of other merchandise, by 12 noon the day after this, Buyer shall be entitled and obliged to utilise the merchandise to the best possible advantage of the person or persons concerned. If prior to expiry of this period the merchandise is in imminent danger, Buyer shall be entitled and obliged to effect utilisation thereof beforehand upon notification of the Seller. Where possible, a corresponding note should be made in the expert's report.
- c) Claims to compensation of damages are limited to the invoice value of the merchandise delivered and to the transportation costs. Any further claim to compensation of damages may only be asserted in the case of gross negligence on the part of Seller.

Article 15: Jurisdiction, Arbitration

- Unless Seller has specified a place of jurisdiction in Buyer's country, the place of jurisdiction for legal actions shall be the Defendant's place of business or, in the absence of a place of business, his place of residence. This shall not prejudice any competence based upon an arbitration agreement.
- For the settlement of disputes, a court of arbitration for the international wholesale trade in flowers may be established.

Approved by the assembly of Delegates of Union Fleurs on 9 November, 1989, at Noordwijk, Holland, and modified by the Assembly of Delegates on 24 March, 1990, in Casablanca, Morocco (The Association of German Flower Wholesalers and Importers are members of Union Fleurs).



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