A View of International Competitiveness in the Floristry Industry

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Reading guide

To enable you to grasp the essential facts in this report quickly we would advise you to read the following chapters:

- 1.3 Research method
- 2.5 Summary and prospects
- 3.5 Summary and prospects
- 4.5 Summary and prospects
- 6. International competitiveness
- 7. Strategy

If you are interested in a particular country read the summary and prospects relating to this in chapter 5.

Foreword

The Dutch horticultural industry is continually confronted with new challenges. The nineties will be dominated by a change from product-based to marketoriented thinking. This will have consequences for every branch of the sector: for the breeder, the propagator, the grower, the auction business, the trader and the shopkeeper.

Against this dynamic background and the explicit presentation of the Dutch horticultural industry at the Floriade, Rabobank has asked the Agricultural Economic Institute (LEI-DLO) to chart the country's competitive strength in the floristry sector.

This report also indicates what strategic options are available for expanding the position. Its object is to give you some insight into the significance of marketoriented thinking and action. In addition, it aims to offer some pointers to help you shape your ideas about the near future. Everyone will have to fill in the details for themselves.

The research and analysis were carried out jointly by the LEI-DLO and Rabobank.

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1. Introduction

1.1 Positioning

The floristry sector comprises the cultivation of and trade in cut flowers and pot plants. The main representatives of the cut flowers are: the rose, chrysanthemum, carnation, tulip and lily; of the green plants: the ficus and dracaena, and of the flowering plants: the kalanchoe and begonia. Pot plants and cut flowers have an almost 80% share of the world trade in ornamental plant products.

1.2 Competitive position of the floristry sector

In the floristry sector, significant changes are occurring in the competitive relationships worldwide. European integration, democratization in Eastern Europe and the liberalization of world trade in the context of the GATT negotiations will have consequences for the international trade. A number of 'traditional' markets are displaying signs of saturation. This affects profit margins and the power relationships in the production chain. In the Netherlands, in particular, new environmental legislation will influence the current method of production. The many changes make it difficult to obtain a clear insight into the prospects for the floristry industry, while this is essential for making a timely response to opportunities and threats.

Within the context of the Floriade International Horticultural Exhibition we have examined to what extent various forces affect the competitive relationships in the floristry sector worldwide.





1.3 Research method

The theories of the American economist Porter have been used in assessing the competitiveness of the Dutch floristry sector. The strength of a sector is not only determined by a low cost price but by a variety of aspects.

The following have been examined in this study: <u>Basic production factors</u> such as raw materials, climate, unskilled labour and capital. In principle, these factors are present and have a direct influence on the cost price.

High-grade production factors such as the infrastructure, skilled labour, research, education, information, telecommunication structures, etc.

These factors have to be created by man and affect quality and efficiency.

<u>Domestic demand</u>: The nature, scope and development of the domestic market have a great influence on the strength of a sector. A critical domestic market strengthens competitiveness, keeps the sector alert and constitutes the basis for a high level of innovation. <u>The network of sectors</u>, which means the extent to which the various links in the chain utilize each other in order to achieve an effective approach to the market. The use of ideas from other sectors is also examined. <u>Government authorities</u>: Here we examine what part is played by government authorities in developing (or curbing) competitiveness.

<u>The economic variables:</u> Here we examine the situation with regard to the entrepreneurial spirit, international orientation, ability to cooperate, management culture, etc.

<u>Chance:</u> Here we examine to what extent the strength of the industry is determined by unpredictable factors such as changes in exchange rates, political decisions, technical breakthroughs, wars, etc. In evaluating a sector it is important to distinguish whether its existing position is due to its own merits or whether it has become strong as a result of chance events.

2. World demand

Analysing sectors or countries on the basis of these factors results in a picture of their international competitiveness. In this respect it is conceivable that certain factors will reinforce each other, but they may also counteract each other. The report as a whole gives an insight into the strengths and weaknesses of a sector and thus offers avenues for improvements.



Figure 1: Porter's determinants of national advantage

1.4 Structure of the study

Chapters 2 to 4 give a brief overview of the development of demand, supply and the trade in cut flowers and pot plants at world level. This results in a picture of the main developments in the sector. Countries which are not active on the export market, but are important in the field of demand or supply, are examined in chapter 2 or 3. After that, chapter 5 analyses the international competitiveness of the main countries which are active in the exportation of cut flowers and/or pot plants.

The positions of the various countries described are weighed against each other in chapter 6. Finally, in chapter 7 conclusions are drawn and possible strategic options are presented which could give the Dutch sector a strong competitive position.

When the term "floristry products" is used this means cut flowers and pot plants. The trade figures unavoidably also include bedding plants.

The investigation was concluded in February 1992.

2.1 Introduction

Worldwide consumption of cut flowers and pot plants can only be given in approximate figures. In 1990, the 14 or 15 main countries (in this connection, a total of about 26 countries are of some importance) together accounted for a cut flower consumption of over 45 billion guilders and a pot plant consumption of over 26 billion guilders.

2.2 Development of consumption

Cut flowers

Consumption of cut flowers worldwide has risen by 11% since 1985, going from 41 billion to 45 billion guilders in 1990. Expressed in guilders the growth in turnover seems less spectacular; the drop in the dollar exchange rate has had a strong influence here. In international terms, the consumption of cut flowers is concentrated in three regions: Western Europe, North America and Japan. The richest countries in the world - the US, Japan and Germany - have the largest turnover in cut flowers (figure 2). Italy also makes a big contribution to worldwide consumption. Patterns of expenditure on cut flowers differ significantly from one country to another. Japan is traditionally a real cut flower country, while cut flower consumption is not really developed in the United States, where the per capita expenditure is low (21 dollars in 1990). This is rising, however. Because of the large number of consumers, the American market is nevertheless extensive. On average, consumers in Italy, Norway and Switzerland spend a great deal of money on cut flowers. Because of the high price, the number of units that can be purchased for the amount spent is low. In view of the world demand curve in figure 3 it may be expected that if prices were to be halved in these countries, the quantities sold could virtually double. A price reduction need not necessarily imply a cut in producer prices. It can also be achieved by removing import barriers and redistributing the margins in the chain.





Western Europe accounts for over half of the world's cut flower consumption. This is expected to increase considerably faster in Japan than in Western Europe in the coming five years.

Pot plants

Worldwide consumption of pot plants is increasing rapidly and compared with 1985 (22 billion guilders) went up by 21% to 26 billion guilders in 1990. Here, too, the growth in guilders was negatively affected by the lower dollar exchange rate. The US (34%) and Germany (19%) have the largest share of total world consumption, followed by Italy and France.

In terms of the average per capita consumption, it proves that Norway, Sweden, Denmark and Switzerland spend more than 100 guilders on pot plants. Pot plant prices are high in these countries. Although the purchases per person are limited, a high amount is nevertheless spent on pot plants.

In Norway and Sweden the high prices are caused by a tight market resulting from import restrictions and limited domestic production.

In Belgium and Denmark expenditure on pot plants appears to be declining slightly (figure 4), while it is rising in the other countries. In Belgium, purchases of pot plants for the buyer's own use are increasing, but are going down sharply for use, say, in cemeteries or as gifts. The slowdown in Denmark may possibly be the result of a saturated market.

2.3 Trends and market segments in the main consumption centres

Generally speaking, floristry purchases in the main supply centres (Japan, the US and Western Europe) can be segmented as follows: about 50% is bought as gifts, 20-30% is for the buyer's own use, about 10% is for use in cemeteries and 10-15% for institutional use. The Netherlands is the only important consumer country which departs very sharply from this distribution with a very high own-use segment (42%).

In most countries, the demand for cut flowers is higher than for pot plants. An exception to this is Scandinavia, where 1.5 times more is spent on pot plants than on cut flowers. The range of cut flowers sold is shown in figure 5.

The US, Japan, Germany, Italy and France are the main markets for floristry products in terms of volume. Italy is dealt with in chapter 5 together with other major exporters.



United States

Flowers are luxury products in the US and are bought by only a limited percentage of the population. The buying pattern is very traditional. This can be seen, among other things, from the type of flowers purchased: carnations, roses and chrysanthemums. The more special products are mainly bought by the high earners in the top classes of the population. In all the buyer groups the buying motive is traditional: flowers are mainly bought on special occasions.

The vast majority of purchases (89%) are made from flower shops. The florist has a margin of 300%, so that

Figure 5: Per capita consumption of cut flowers in units

prices are high. Sales of both cut flowers and pot plants through supermarkets are clearly rising, resulting in an increase in the number of points of sale. Supermarkets apply a margin of only 100% so that prices can be lower and impulse purchases are encouraged. As a result, flowers and plants are becoming more of an everyday commodity.

The Society of American Florists expects cut flower consumption to increase by 50% between 1992 and 1997. The growth will mainly be attributable to the increase in the number of points of sale. Pot plant consumption will also rise. In a recession, growth will be less strong.

Japan

Japan is one of the largest consumers of cut flowers. Both the total consumption of flowers (11 billion guilders in 1990) and the average consumption in units per head of the population (40 units) is high. Many flowers are for business use.

As a result of the rise in disposable income they are becoming increasingly popular as gifts. The custom of buying flowers for one's own use is unknown in Japan.

Because of the growing popularity of the Western life style, this situation is gradually changing. The high



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prices and low number of points of sale have a hampering effect on impulse purchases.

The quality requirements of the Japanese consumer are very high. There is a great demand for top quality, but also for new and different Western flowers.

Flowers which herald a coming season are very popular. A growth in the demand for flowers is expected in every segment except as regards the flowers used for ikebana (the Japanese art of flower arrangement).



Germany

The data presented here frequently relate to the former West Germany. As a result of unification, consumption rose sharply in 1990 (high demand from East Germany).

Virtually every German family buys flowers. This also includes a small group of very intensive buyers. About one quarter of the expenditure goes on cut flowers for the buyer's own use. The gift segment has grown strongly and is now the largest, with 64% of turnover. The purchase of flowers for use in cemeteries has fallen sharply in importance and now accounts for 10% of sales.

A family (2-3 persons) buys about 135 flowers per year. A striking feature is the importance of the mixed bouquet (40% of flower sales). The range has been stable for many years now.

German consumers have a strong preference for flowering pot plants (84% flowering), such as cyclamen, Azalea, poinsettia, primula and saintpaulia. More and more households occasionally buy pot plants. The share of pot plant sales for the buyer's own use has hovered around 40% for years now, the gift segment has grown strongly (now 48%) and the cemetery segment has fallen sharply. A household buys an average of eleven pot plants per year.



Around 30% of the pot plants are sold through supermarkets, which are also becoming increasingly important for the sale of cut flowers (20% of sales at present). This has taken business away from garden centres. Supermarkets will mainly aim at selling current products. Flower shops are now concentrating more on flower tying, including funeral wreaths (a shrinking market segment) and other special flower arrangements in order to maintain their market share - around 45% for years now - in the competition with supermarkets.

France

Consumption of cut flowers and pot plants is growing. Nevertheless, few shifts in market segments are taking place. The percentage of flowers sold in bouquets or flower arrangement is stabilizing at 44%. The own-use segment is not strongly developed, except for the green plants market. Only a slight shift has taken place in the sale of single flowers, where the gift segment has grown.

French consumers have a clear preference for flowering plants (85% of the plant turnover). The cemetery segment is relatively important (43% of turnover). The per capita consumption is low, averaging 2.5 plants per year. Consumption is concentrated in the Paris region. Sales are mainly made through flower shops (59% of the turnover) but the importance of this channel is falling slightly. Sales via markets and street trading are stable (11% at present). Supermarkets account for 9% of the turnover. Garden centres, particularly those at hypermarkets, are coming strongly to the fore.

2.4 Summary and prospects

The large-scale consumption of cut flowers and pot plants is typical of countries with a high level of prosperity. World consumption of pot plants is increasing faster than the consumption of cut flowers. In 1989 pot plants had a 36% share in the consumption of flowers and plants. The following reasons account for the increased expenditure in this segment: the growing attention for natural things, the more favourable price/value ratio for the consumer and the wider availability. In Western Europe some 70% of the

3. World supply

expenditure on pot plants goes on flowering varieties. In various countries, floristry products are increasingly seen as products for everyday use and no longer exclusively as a luxury. This shift can be stimulated by better availability and higher efficiency in the business chain, enabling consumer prices to be reduced. Sales through supermarkets improve the availability of flowers and plants. Working this channel calls for an appropriate marketing strategy. The market for funeral flowers and wreaths is slowing down. As a result of this development the demand for cut flowers and pot plants is becoming less and less income-related.

A number of rapidly growing consumer centres can be indicated for cut flowers. These are located outside Europe. The Japanese cut flower market, with a strong demand for good quality and new, unfamiliar products, may grow by 5% per year up to 1993. An even stronger growth is forecast for the American market: 6% per year up to 1993. In reality, growth will be lower because of the economic recession. The European market is expected to increase by 4% per year to over 29 billion guilders in 1995. The strongest growth is expected in the countries of Southern Europe where the number of units bought is still low at present. In the longer term, when cut flowers become more readily available in greater quantities and purchasing power has increased, Eastern Europe may also develop into an important consumption centre. For the time being, the food supply has priority there.

For the Western European <u>pot plant market</u> the Dutch Flower Auctions Association (VBN) foresees a growth of almost 5% per year in the coming years to a volume of 23 billion guilders in 1995. Growth will mainly be in terms of volume while the price level will remain virtually the same. Spain and Italy, where the consumption level is still very low, will be strong growth countries.



3.1 Introduction

The cultivation of cut flowers is widely distributed throughout the world. It is included in the statistics of 145 countries. In addition, cut flowers are extensively cultivated in many countries on a small area in the open. Pot plant cultivation is less widespread. The statistics show 65 countries which produce pot plants, but in many countries these figures are not very accurate. Both the cut flower and pot plant acreages in the world are increasing. The share of pot plants in the floristry acreage has risen to 13%.

3.2 Development of the acreage

Cut flowers

The world cut flower acreage, based on the seventeen most important countries, was estimated at 56,000 ha in 1989. This is 13% more than in 1985 (48,000 ha). A growth of only 1% took place as compared with 1988. Over a quarter of the acreage is in Japan. The Netherlands, Italy, the US and Mexico each contribute about 10% to the world acreage (figure 6).

The percentage of protected cultivation remained the same between 1985 and 1989. Cultivation takes place under plastic or in glasshouses on about 28% of the acreage. In a number of countries only the protected cut flower acreage (e.g. Italy, Spain and Colombia) or only the cut flower acreage in the open is rising because of cost price arguments (Germany). In the Netherlands, the US and Kenya the acreage in the open and in the protected area is growing.

Figure 6: Development of cut flower acreage (x 1000 ha.)





Figure 7: Development of pot plant acreage (x 1000 ha)

Pot plants

The world pot plant acreage, estimated on the basis of ten important countries, was 11,000 ha in 1985. After a growth of over 4% per year, the acreage had risen to 13,000 ha in 1989 (figure 7).

Over a quarter of the pot plant acreage is in the US, and about 13% in Germany and Japan. The Netherlands, the largest pot plant exporter, cultivates only 917 ha, or 7% of the world acreage. Denmark, the world's second largest exporter, has 3% of the acreage. A relatively high production is achieved by very intensive cultivation, mainly in glasshouses.

3.3 Development of production value and volume

Cut flowers

The production value on a worldwide scale (based on the 17 most important countries) amounted to about 11 billion guilders at grower level in 1985 (figure 8). In 1989, production was 12% higher, i.e. over 12 billion guilders. A growth of 7% took place compared with 1988. The percentage growth from 1985 to 1988, calculated in guilders, was negatively influenced by the sharp drop in the dollar exchange rate in the latter year.

In Europe an average of 59% of the cut flower supply comes from the producer countries themselves. Seven per cent of the supply of cut flowers in the EC as a whole comes from non-EC countries. The share of domestic deliveries is much greater in the US (84%) and Japan (95%). The distribution between domestic deliveries and imports has been relatively stable in recent years. Both importers and local producers therefore benefit by the growing market.



Figure 9: Production value of pot plants (mill. guilders)



Pot plants

A major part of the pot plant production in the world is in the hands of the US, the Netherlands, Japan and Italy combined (figure 9). On average, 63% of the plant supply in European countries comes from domestic production. Generally speaking, the domestic supplies are very gradually being pushed out by foreign suppliers.

Production is shifting to innovative countries such as the Netherlands and Denmark.

The production value on a worldwide scale was estimated at 8 billion guilders in 1989, a rise of 17% compared with 1985. In all ten countries investigated, except the US, the production value rose between 1985 and 1989. US production began to recover after 1988, however.

3.4 Main supply centres

Japan, the US, Italy and the Netherlands are the world's main producers of both flowers and pot plants. The Netherlands and Italy are also important exporters and will therefore be dealt with in greater detail in chapter 5.

Japan

The production of both pot plants and cut flowers is growing rapidly. Both have doubled in the space of ten years. The limited but rapidly growing international trade provides a strong stimulus to domestic cut flower consumption. Domestic production is also benefiting by this.

Only one third of the cut flowers are grown under glass or plastic. The importance of protected cultivation is increasing, however. A shift is taking place from seasonal to year-round production.

As a result, better labour productivity can be achieved and better opportunities for sales can be created. Although the production value per nursery is increasing, it is still low as compared with the Netherlands (47,000 guilders in 1988).

The main cut flower is the chrysanthemum - about 40% of domestic production - followed by the carnation and rose. Although the cultivation of these three is still increasing, the strong growth in production is nevertheless mainly attributable to Lisianthus, Limonium, the tulip, gladiolus and lily. In the pot plant production sector orchids and green pot plants are the principal products. Both constitute one quarter of the volume produced.

Pot plant production can be divided into two segments:

- large high quality plants mainly sold as gifts;
- mass-produced smaller plants purchased for the buyer's own use.



United States

The American growers supply about 90% of the domestic market. The quality of the extensive production, the low dollar exchange rate and the strict phytosanitary requirements for imports have put the American grower in a favourable competitive position. A major problem in deliveries to the American market is the concentration of demand around a number of peak days. The substantial imports from Colombia of carnations, roses and chrysanthemums at a favourable price/ quality ratio are taking over from the American acreage for these products. As a result, large flowering roses and summer flowers are becoming more important in the range.

Supplies of flowering plants are rising rapidly in reaction to the fast-growing demand for these products. The Azalea, pot lily and poinsettia are coming strongly to the fore. The growth of the category 'others' can point to an expansion of the range. The cultivation of foliage plants went badly for a long time but has now begun to recover. In terms of numbers, Epipremnum,

4. World trade

Hedera and Dieffenbachia, all with a 7% share, were the main foliage plants.

3.5 Summary and prospects

In the period between 1985 and 1989 the cut flower acreage grew by 13% and the production value of cut flowers by 12%. The pot plant acreage rose by 22% and the production value of pot plants by 17%. The production value of cut flowers is about 30% higher than that of pot plants. Pot plant production is at present growing more quickly than that of cut flowers. Major flower and plant producing countries are mainly concerned with the domestic market. Only the Netherlands is distinguished from other large production countries by a small home market and its strong focus on exports. Domestic demand in Italy, Japan and the US is expected to increase further, but foreign competition is growing. Italian growers are mainly confronted with problems in renewing the range and gearing production to consumer trends (see also 5.6). The extent to which Japanese producers will benefit by the growth in domestic demand largely depends on whether they succeed in keeping production costs low and achieving more stable production. The accessibility of the Japanese market to foreign suppliers is severely restricted by the phytosanitary policy. American growers still occupy a virtually monopolistic

American growers still occupy a virtually monopolistic position on their domestic market. They are, however, experiencing strong competition from Colombian suppliers when dealing in products such as carnations, chrysanthemums and roses.

The trend in the supply from American growers will strongly depend on the development of the range in Colombia, the price/quality ratio delivered and the extent to which American growers can come up with alternatives (innovation).



4.1 Introduction

Floristry products are increasingly being traded across national frontiers. The importance of domestic production is declining and that of imports - often as an addition to the country's own range - is increasing. Cut flowers are traded all over the world, although the main concentration is in Western Europe and America. The trade in pot plants is often restricted to their own part of the world. The high transport costs and often stringent phytosanitary requirements make inter-continental trading in large volumes of pot plants less attractive. Attention to pot plants will mainly be concentrated on the trade in Western Europe.

4.2 Development of imports and import markets

Cut flowers

The value of world imports of cut flowers was 5 billion guilders in 1988, representing about 30% of the world supply. Imports rose by 17% between 1985 and 1988. Imports are still admittedly rising, but at a slightly lower rate than in the past. World imports for 1990 are estimated at 5.4 billion guilders. Europe has further strengthened its position as the largest importer. Germany is the main customer (39% of world imports). Virtually all the imports from the American continent are intended for the US. Asia plays a very small role in imports, and Oceania and Africa none at all (figure 10).

German imports show a strong growth, in contrast to the amounts imported by the US (figure 11). The gap between the first and second importers of cut flowers is therefore widening. A striking feature is the strong growth of imports in Southern European countries such as Spain, Greece and Portugal. The volume of these imports is still limited, however: Spain 48 million, Greece 14 million and Portugal over 2 million guilders in 1990.

Pot plants

Imports of pot plants into Western Europe amounted to about 2.4 billion guilders in 1990 (figure 12). This is about one third of the world supply. In the period 1985-1988 imports rose by 23% to 1.8 billion guilders. The trade in flowering plants inside Western Europe, which is at a much lower level than the trade in foliage plants, is increasing particularly rapidly. 97% of the imports in the EC come from the Community itself.

The trade in pot plants therefore mainly takes place at regional level and hardly at all at world level. In the context of pot plant exports from Western



Europe to countries outside Western Europe the share of green plants especially is growing fast. The number of countries which import from the EC is increasing. Imports of plants from the EC into Japan, Finland, Austria, Switzerland and Norway have increased rapidly. Israel, Singapore, the US and South Africa imported far fewer plants. A declining dollar exchange rate, the start-up of domestic production and trade boycotts can be mentioned as reasons for this.

4.3 Development of exports and export countries

Europe also plays a dominant role in exports of cut flowers (figure 13): 76% of the exports come from Europe, and almost exclusively from EC countries. The Netherlands is the main exporting country with a share of 59% of world exports in 1990. In 1980, its share was 60%. Colombia is the most important exporter on the American continent with 10% of world exports (figure 14).

A great many countries which had low exports in 1985 increased their share sharply in 1989. Exports from Spain, Kenya, Małaysia, Ethiopia, Ecuador, Guatemala, Turkey and Zimbabwe went up by at least a factor of four. These countries have favourable production factors such as a warm climate and cheap labour, which enables them to compete on cost price. Italy's and Israel's share of exports fell slightly between 1980 and 1990.

As in the market for cut flowers, the world exporters of pot plants are relatively one-sided in composition.







Western Europe is an area of concentration and North America, too, is a relatively large trading centre. The Dutch position in exports has become more important, with its share growing from 52% in 1980 to 61% in 1990 (figure 15). Between 1985 and 1990 Spain grew strongly as an exporter of foliage plants. Dutch exports of foliage plants are growing faster than those of its greatest competitors: Denmark and Belgium. German foliage plant exports are increasing but are still at a fairly low level.

Denmark, the largest exporter of flowering plants, has seen its exports increasing but less rapidly than those of its greatest competitor, the Netherlands. Belgian exports are growing fast, but in terms of absolute value are only 13% of Danish exports. Italy is coming strongly to the fore as a small exporter of flowering plants.

4.4 Price developments

The prices at which cut flowers are sold at the Dutch auctions are indicative of the international price trend for these products. Flowers from Dutch auctions constitute about 70% of world exports.

In spite of the sharp rise in the supply, the average annual price of the cut flowers brought to auction has remained virtually constant in the last ten years at a nominal 36 cents per stem (figure 16). The real prices have fallen slightly. As a result of the improved productivity in both cultivation and the trade the profit development has scarcely lagged behind.

The average nominal annual price of the ten most frequently sold flowers fell, however, from 35.5 cents per flower in 1985 to 31.7 cents in 1990. This would appear to indicate a trend towards mass products becoming less profitable as a result of the increased supply.

Next, an expansion of the range is occurring with species for which a relatively good price is still paid. The average annual price for pot plants is less stable. A fall in price occurred in 1987 and the old level was only regained in 1990.

As a result of tremendous diversity in species and pot sizes, it is scarcely possible to give any trendwise developments.

Short-term price fluctuations occur very frequently in the case of both pot plants and cut flowers.







Figure 18: Trade flows of cut flowers 1990 (x mill. guilders) N.B. Only trade flows > f 50 million are shown





4.5 Trade flows

The largest flow of cut flowers, with a value of 3 billion guilders, goes from the Netherlands to the other EC countries (figure 18). More than half of these are destined for Germany (value 1.6 billion guilders). A substantial trade flow goes from Colombia to the US (volume 363 million guilders).

The largest trade flows in pot plants come from the Netherlands and are focused on Germany, France and Italy (figure 17). Denmark has a high level of exports to Germany and Sweden, while Belgian pot plants mainly go to France.

4.6 Summary and prospects

An ever-increasing share of the production is traded internationally. About one third of the cut flower production is put on the international market, the equivalent figure for pot plants being about 30%. The world trade in cut flowers is strongly concentrated. The Netherlands, as a centre of trade, is decisive for the price formation worldwide. There is also a similar centre for pot plants, but it is much less clear-cut, namely North-Western Europe (The Netherlands, Belgium, Denmark and, to a much lesser extent, Germany). A strong growth in consumption and imports in Southern European countries has contributed to the increased importance of Europe as an importer of cut flowers. This trend may be expected to continue. Imports of pot plants are developing rapidly, particularly in Austria, Switzerland, Finland, Norway and Japan.

The number of countries exporting cut flowers which have favourable production factors is increasing. The volumes exported are still low and the range is often limited (carnations, roses). In the case of pot plants, Germany appears to be developing into an important exporter. It mainly exports Erica and Azalea, while Belgium concentrates mainly on Azalea, Denmark mainly on flowering plants and the Netherlands mainly on green plants. The Netherlands is becoming an increasingly large competitor for Denmark in the area of flowering plants.

5. Competitiveness of supply centres

5.1 Introduction

In this chapter, the specific aspects of the production and sales of the countries with an internationally competitive cut flower and/or pot plant sector are examined. A brief outline of the supply and trade will be given for each country. This is followed by a description of the competitiveness based on production factors, the domestic market, the network, economic variables and the government authorities. The production factors will be dealt with in schematic form. In order to determine the competitiveness, a number of countries have been selected on the basis of their position in world trade. The factors considered include the share of exports in the world cut flower or world pot plant trade (more than 1%), on increasing cut flower or pot plant exports and on a positive balance of trade for the relevant sector. In addition, exports must not be specifically concentrated on easily accessible neighbouring countries.

The Netherlands, Colombia, Israel, Kenya, Italy and Spain have been selected for cut flowers, and the Netherlands, Denmark and Belgium for pot plants.

5.2 The Netherlands

Supply and trade from the Netherlands

Supply

The acreage used for floriculture shows a moderate growth (1985 vs 1990 +22%). The acreage of cut flowers in 1990 was 5,700 ha and of pot plants 983 ha. Cultivation under glass takes place on 71% of this acreage. The number of businesses is increasing less rapidly than the acreage (1985 vs. 1990 +4%), so that a





further increase in scale is taking place. In 1990 there were over 11,000 floristry businesses, 15% of which specialised in pot plants and 85% in cut flowers. The production value of the floricultural industry is growing faster than the acreage. Compared with 1985, the production value at grower level rose by 35% to 5.28 billion guilders in 1990. Until 1980 the rise in production was mainly the result of an expansion in the acreage; after 1980 the increased productivity was the main cause. Productivity per m² grew as a result of different methods of cultivation, better greenhouses and techniques, new varieties, cultivation on substrate, assimilation lighting and automation. A further changeover to substrate cultivation is expected to result in a greater increase in productivity. The real price fell in the period concerned. Since 1980, roses and chrysanthemums combined have always accounted for between 35 and 40% of the proceeds at auction, with carnations, tulips, lilies, freesias, Gerberas and Gypsophila following some distance

The pot plant sector, with a total auction turnover of 1.16 billion guilders, is much less large but is growing strongly. The two main pot plants, Ficus and Dracaena, only account for auction earnings of 0.2 billion guilders (1990).

In the case of the pot plants, there are no leading crops. The auction turnover of green plants produced in the Netherlands is growing more rapidly than in flowering plants and has also been higher in terms of absolute value since 1980. The large growth of turnover in green plants has not been accompanied by great shifts in the species on offer. In the case of the flowering plants a number of mass products are cultivated. Here slight shifts are taking place in the range, Kalanchoe now being the most important product, followed by the Azalea and Begonia.

In 1990, almost 9 billion cut flowers (about 95% of the production) and 750 million pot plants (about 70% of the production) were sold by auction. Over 70% of the sales by auction go for export. The price formation at the Dutch auctions is therefore determined by demand from abroad. The auction prices largely determine the future supply from Dutch growers. Both quality and volume are adjusted to the international demand with a slight time lag.

Trade

behind.

The Netherlands is the largest exporter of cut flowers (59% of world exports) and pot plants (48% of world exports) and is regarded as a centre of world trade for floristry products. International demand and supply are confronted with each other at the Dutch auctions. The auction prices are therefore an indication of the

trends in world trade in floristry products. About 70% of the country's own production is exported. About the same percentage of cut flower imports and 40% of pot plant imports are re-exported. The Netherlands is also a trendsetter in the field of transport, packagings and trade functions.

Dutch exports of flowers and plants rose in 1990 by 7% to a total value of 5.2 billion guilders. Exports of

flowers and pot plants amounted to 3.5 billion guilders and 1.7 billion guilders, respectively. The Dutch Flower Bureau (BBH) expects that flower and plant exports will have risen to 6.5 billion guilders in 1995 and 8 billion in 2000. Exports of both cut flowers and pot plants are largely focused on Germany. The importance of exports to other countries in the EC, such as France, the UK and Italy, is continually increasing, however. Exports to destinations outside

Basic and h	igh quality production factors	:			
	strong	weak			
Geography	 Situation favourable with respect to Europe. Low transport costs. 				
Climate	- Mild climate without many extremes.	- Cultivation in h	eated greenhouses essential		
Raw materials	- Gas relatively cheap.	 Strong dependent Strong dependent Land is expens Good irrigation requirements for substrate cultive Fertilizer and personal area and weap 	ence on non-renewable ive. n water is scarce; or this are rising because of ation. pesticide emissions to the ter		
Labour	- Labour costs are stable. - High productivity.	 Labour costs are high (<i>f</i> 32/hour). Difficult to find workers. Labour management not professional. 			
Capital	 Cheap capital (9.8% interest) in principle unlimitedly available through banks which know the business. Low inflation (3%) 				
Infrastructure	 Roadway network and air travel well developed. Auctions developing teleprocessing networks permitting fast communication. 	- Hold-ups at au motorway.	ctions not located on the		
Knowledge infrastructure	 Extensive courses and study club network. Open knowledge structure; sector has money for knowledge. Information spreads rapidly. Much research, from fundamental to practice-oriented. Good quality training courses at various levels. 	 Little marketin Information fro to producers. Shortage of hig 	g knowledge. om market slow to penetrate her trained personnel.		



the EC are declining in importance. Exports to the US and Japan fell sharply in 1990. Dutch exports suffered from falling currency exchange rates while local production and imports from other countries went up.

Imports of cut flowers are increasing, and rose by 78% between 1985 and 1990. The share of the EC countries is growing. Spain, Kenya and Zimbabwe are becoming more important as suppliers while the importance of the Israeli, Thai, Colombian and Ethiopian supplies is declining.

Virtually all the imports of flowering plants into the Netherlands (92%) come from Denmark, Germany and Belgium. Almost all the importers saw their imports into the Netherlands growing, while only imports of flowering plants from Belgium decreased in 1990. Imports of foliage plants from Belgium recovered in 1990.



Energy

Both the EC and the Dutch government are talking about an energy levy. Although the availability of energy and its price do not constitute a problem at present this may become a threat in the future.

Air bridge

Since frequent air links with Colombia were non-existent for a long time, Colombian imports into Europe travel via other countries. The Dutch national airline, KLM, has now acquired the rights for a direct service.

Teleprocessing

The logistical problems created by the ever-growing supply of flowers for auction have led the auction markets to develop teleprocessing networks. This is aimed at decoupling the logistical and commercial auction processes. Large-screen auctioning was introduced in March 1991 with the Vidifleur system and work is in



Figure 23: Sales pattern of cut flowers traded through the Dutch distribution channels

Source: Sluys (1990)

progress on a tele-auctioning system (EFAS). The growers are already linked to computer networks on which all the trade transactions at the auctions can be seen immediately. In this way, they know directly for what price their flowers have been sold and can carry out longer-term analyses to gear their trading to this. Computerized registration systems are now standard equipment in the larger nurseries.

Domestic market

Although a large number of households buy flowers and pot plants, the domestic market for Dutch growers is fairly small. In 1990, an average of 61% of households bought flowers at least once a quarter. The equivalent figure for pot plants was 45%. In spite of the high degree of penetration the Dutch market does not appear to be entirely saturated at the present level of approach.

Flowers are mostly sold as gifts (57%) and for the buyer's own use (39%). The cemetery segment is very small. No fewer than 82% of the flowers are bought by women. Pot plants are bought more frequently than flowers for the buyer's own use, half being purchased for this purpose and the other half as gifts. A section of the domestic market makes high quality demands on the products. In addition there is a large group of buyers-by-price. There is a strong demand for new products. Demand is sensitive to trends. Although the domestic market has encouraged innovations, the German market is certainly just as important in stimulating innovation.

Network

The pattern of sales for cut flowers is shown in figure 23. Foreign production is only included when the cut flowers traded have the Netherlands as their intermediate or final destination.

Growers

The cultivation of floristry products is concentrated in South Holland, particularly in the area known as the South Holland Glass District (ZHG); 65% of the cut flowers and 49% of pot plants are grown in this province. There is also a production centre around Aalsmeer. Because of the lack of well-developed large continuous stretches of land in the old centres, many new nurseries are at present springing up in the fringe areas around the ZHG and Aalsmeer. A number of growers opt for regions such as Brabant or Flevoland for expansion because of the space, land prices, labour market and infrastructure.

Auctions

Flowers and pot plants are sold through seven auctions: two very large and one less large auction geared to exports and four auctions mainly oriented towards the domestic market. This division is becoming increasingly marked. The two largest auctions (Verenigde Bloemenveiling Aalsmeer and Bloemenveiling Holland) account for 81% of the auction turnover in cut flowers and 92% of the auction turnover in pot plants. The trend towards strategic partnerships and mergers is continuing, enabling the role and power of the auctions to increase further.

The auction plays a central part in the chain as the place where demand and supply are concentrated. The auction system is responsible for price formation and creates a transparent market. In addition, the auctions organize the logistics and do a limited amount of market research and product research. In particular, information on prices and sales is largely distributed through the auctions. A disadvantage of the auction system is that there is little direct contact between end users and producers. As a result, information from the market does not reach the producers to a sufficient extent. An important challenge for the auctions is to fulfil a pioneering role for the product-oriented growers and the market-oriented traders and end users. The sale of pot plants, and to a lesser extent cut flowers, is also largely achieved through the 'Bemiddelingsbureaus' (mediation offices) which act as intermediaries between the producers and traders on a commission basis. The price agreed on is derived from the auction clock price. These offices are growing in importance. 44% of pot plants, but only 1% of cut flowers, are sold through mediation offices.





Foreign producers, too, can sell through the Dutch auctions. The share of foreign flowers in the auctions' turnover varies from 6 to 15%; 45 countries send supplies to the auctions. Foreign deliveries are only permitted as an addition to the Dutch range. More and more foreign products competing with the Netherlands are coming to auction, however. Various foreign flower growers have applied for auction membership. The discussion about these developments is in full swing. European unification will act as a further stimulus to internationalization.

A third point of attention are the logistical problems resulting from the ever-increasing supplies brought to the auctions. A solution is being sought in the area of teleprocessing networks. The actual physical supply of products and price formation at one point would then no longer be necessary.

Wholesale trade and exporters

Domestic wholesalers (about 220 companies) and exporters (over 1900) receive their supplies via the auctions. The exporters can be divided into the scheduled delivery services and dispatch exporters. The former deliver their products directly to the foreign retail trade, whereas the latter mainly deliver to wholesalers abroad (74%).

In recent years, their share has fallen in favour of deliveries to the retail trade (22%). 4% of the deliveries are made directly to a chain store. As regards the smaller retailers, direct purchasing at the large auctions is becoming more difficult and more expensive as a result of a linkage between order size and auction costs. They can, however, obtain supplies from cash and carry businesses.

Retail trade

There is a widespread distribution network, with one point of sale for flowers or plants per 2320 inhabitants. Most of the distribution to consumers takes place through flower shops (54%). In addition, there are sales through street traders (23%), grocery superstores (13%), garden centres (6%) and other channels (4%).



Figure 24: Cost structure in the cut flower chain (as % of consumer expenditure)

Source: Rabobank

The flower shops have reinforced their position on the basis of specialization in recent years. The street traders' share of flower sales is decreasing, while the share of the chain stores remains stable. It is nevertheless expected that it is precisely through chain stores that the number of sales outlets, and hence the volume sold, can grow.

Flower shops and garden centres have a gross profit margin of about 75%, street traders about 50% and the supermarkets and department stores around 65%.

Suppliers

There is an extensive network of suppliers who specialize in the floristry sector. They are mainly located in Aalsmeer and the South Holland Glass District, close to the growers. The range suppliers can offer to the growers has undergone a marked expansion.

Mergers, takeovers and strategic partnerships have resulted in larger companies which are able to offer a wide selection of goods and services. These larger companies are increasingly operating on an international scale.

The network of breeders and propagators supplies

parental material to growers all over the world. As an extension of the strong development in the cultivation and sale of floristry products, breeding and propagating have acquired a very strong competitive position in this field. This relates to activities in the area of seed cultivation (e.g. biotechnology) and vegetative propagation (e.g. tissue culture). The production value of seed cultivation for the floristry business roughly amounts to 240 million guilders. Around 30% of this is exported and the same percentage of the production value of parental material (800 million guilders) is also exported.

Cost structure in the chain

In the cut flowers chain the grower contributes 42%, the auctions 3%, the wholesale trade 12% and the retail trade 43% to the costs which the consumer incurs to purchase these products (figure 24). The auctions' and wholesalers' share in the costs is low, particularly when it is remembered that they largely bear the total costs of sales, logistical regrouping, quality monitoring, funds transfers and transport and distribution. The efficiency achieved here makes a great contribution to the strong position of ornamental plant cultiva-



tion in the Netherlands. The relatively high production costs of the grower - compared with foreign suppliers are (more than) compensated for here. This efficiency in selling is also attractive for foreign suppliers.

The network of the floristry sector is both wide and deep. Wide because, for example, in the field of horticultural technology and research it benefits by a related sector such as the cultivation of vegetables under glass. In the area of sales there are clear points of contact with the flower bulb and tree nursery sectors which sell a proportion of their products through the auctions.

As regards depth, the dynamic sector organizations ensure small businesses have advantages of scale. The building up of a wide range, research and the collection of market information are largely done by the sector organizations and the auctions. As a result, the disadvantages of the small-scale production links in the chain are eliminated while the advantages of entrepreneurial production are maintained.

Developments in the sector appear to be strengthening the network further. Through contracts, memberships, cooperation, consultation, etc. the various links in the chain are becoming increasingly geared to each other. Links close to the consumer are becoming more and more influential in the chain, so that focusing on the market is also becoming more essential for links such as the breeder and grower. The tightly-knit network makes a substantial contribution to the efficiency in the chain (lower costs, shorter lead time). The openness in the network and geographical concentration stimulate innovative developments and their rapid distribution. The interwoven nature of the network also leads incidentally to bureaucratization in decisionmaking. This can slow down the processes outlined above.

Economic variables

The growers regard each other more as colleagues than as competitors. The sector is cooperative in nature. Sales are achieved jointly through the auctions and this also applies to the promotion and financing of research. One advantage of the auction system is that growers do not encounter each other as direct competitors so that a sense of comradeship is generated. Government intervention in the floristry sector is relatively small. Part of the sales are made outside the auction sphere, however. The chain stores, in particular, are insisting on direct contacts with the producer. This will promote competition between growers which can seriously weaken the open knowledge infrastructure and hence reduce innovative capacity. By selling through mediation offices, the auctions are trying to maintain the cooperative sales and also to continue servicing the major customers. The precise volume of sales outside the auctions is not known. For pot plants it is estimated at 30% and for cut flowers at 5%. Growers who are members of an auction are obliged to sell all their products through the auction. The Dutch economy is strongly geared to international trade. The strong commercialism has certainly contributed to the concentration of the Dutch floristry sector on exports.

Government

The government mainly plays a role in physical planning, the infrastructure, tax legislation and social security. In recent years government policy has been strongly centred on matters concerning the environment. Far-reaching environmental measures have been proposed in order to reduce dependence on pesticides and fertilizers, their use and the resulting emissions.



Measures to reduce the use of pesticides constitute a threat to the deliveries to markets such as the United Kingdom, the US, Japan and Sweden. They require the crops to be guaranteed free from diseases and pests (so-called zero tolerance). In the context of the GATT negotiations an endeavour is being made to achieve worldwide harmonization of phytosanitary measures. By the year 2000 the floristry sector will have to have switched over entirely to cultivation in closed production systems in order to restrict emissions from pesticides and fertilizers. Among other things, solutions are being sought in cultivation on substrate with recirculation of the drainage water. Less than 20% of the cut flowers are at present grown in this way.

According to the Dutch Central Bureau for Statistics (CBS), of the 5140 ha of flowers cultivated under glass, 479 ha were grown on substrate in 1990. There is as yet no known optimum closed production system for many crops. A great deal of research will still have to be done on this. Changing over to a closed production system with substrate cultivation requires high investments.

Fewer and fewer resources are available to enable the government to play a stimulatory role. It traditionally supported the three key aspects of education, research and information, but information is now privatized. This offers more opportunities for the sector to guide and manage the information supply, but it can also lead to increased costs and reduced quality. The government still continues to give support for research and education, but it is tending to withdraw from these fields, too, and a higher (financial) contribution is required from the floristry chain.

Summary and prospects

The strong concentration in certain growing areas and the favourable geographical situation were important preconditions for the development of the sector. The production factors, such as labour, energy, capital goods and land, are characterized in the Netherlands by the relatively high price which has to be paid for them.

The Netherlands does not therefore derive its strong competitiveness as the largest exporter of cut flowers and pot plants from the low production costs. These are compensated by well-developed aspects such as efficient networks, favourable economic variables and a highly discriminating domestic demand. The efficiency of the auctions and the wholesale trade make a great contribution to the strength of the Dutch range of floristry products on the international markets.

The auctions play a central role in the floristry business. They not only ensure optimum price formation and efficient logistics for handling the tremendous volume of products. Another consequence of the auction formula is that growers do not see each other as direct competitors.

This creates the possibility for intensive cooperation, among other things, as far as exchanging knowledge is concerned. The nurserymen have specialized and can concentrate on maximum efficiency in the management of their businesses. An optimum combination of specialization and interchange of knowledge is essential for the relatively small-scale production companies operating on traditional lines if they are to be able to keep pace with the rapid innovations in all aspects of management.



Because of the high level of organization, growers are nevertheless able to exert sufficient influence on developments. The way in which stimuli for innovation are tackled is one of the main factors which determine competitiveness. The factors described have a positive effect on each other, so that over the years a network has grown up in which the breeders, growers, suppliers and sales channels are in contact with each other. Consequently information on innovations and trends is passed on quickly. This must be regarded as the most elementary characteristic of Dutch competitiveness; if these aspects remain intact and are maintained that strength will endure.

5.3 Colombia

Supply and trade from Colombia

Supply

Cut flower production in Colombia is almost entirely focused on exports. The range is fairly limited; 46% of the production consists of carnations, 25% of chrysanthemums and 15% of roses.

There are around 250 owners of larger export companies who have a total of 400 nurseries, with an average size of 8 ha.

In addition, there are about 80 small and mediumsized companies. Cultivation takes place almost entirely under plastic and many disease problems occur. No heating is used, but lighting is employed in some cases. The acreage in 1990 was 3914 ha and this is expected to grow by 5% in 1991.

The production volume has risen along with the acreage. Production in 1990 amounted to 102,000 tonnes, 85% of which was exported.

Production is expected to go up to 115,000 tonnes in 1991, a rise of 12%. The production of roses and carnations is growing faster than average. The production of orchids is still limited, but is moving ahead strongly.

Trade

Colombia started exporting flowers in 1964. Today, the country is the world's second largest exporter with a 10% share of world cut flower exports. Diversification of the range has resulted in 16 different species now being exported. Exports have developed explosively, with the volume rising by 35% since 1988 to 97,400 tonnes in 1990.

A 12% rise in volume and 8% in value is expected for exports in 1991, from which it is clear that the average export price of cut flowers will decline further. The export value amounted to 600 million guilders in 1990.

Exports largely go to the US (81% in 1990). Colombia is the main country exporting to the American market. Trading is done in dollars so that exports are not hampered by a low dollar exchange rate. Western Europe is the main market after the US (14% of exports). Up to now, exports to Europe have mainly been channelled via Frankfurt and London. In 1990, the European Commission abolished the payment of import duties for Colombia, among other countries. This has eliminated an important restriction on exports to the EC. Colombia is actively looking for new markets, such as Japan.

Domestic market

The domestic purchasing power is too low to be able to play any significant role. Only 15% of the production is not intended for export, representing over 5000 tonnes of cut flowers at present. This percentage scarcely ever changes.

Network

Growers

Production is strongly concentrated around Bogota where about 87% of cultivation takes place. The rest is distributed over Medellin (7%) and the neighbourhood of Cali (3%). The growers are organized in two flower export organizations: Asocolflores (mainly larger growers) and Fedeflores (small and medium-sized growers, frequently Colombians). Distribution in Miami is not optimum for small exporters and Fedeflores undertakes this itself on their behalf.

The functions in the product column are often integrated in the same company. These large enterprises produce, carry out research, propagate and export. This arrangement permits an extensive form of integrated chain control. Know-how is bought abroad, if necessary.

Exporters

Sales in the US are largely channelled through the Colombian importers established in Miami. The large companies have their own sales offices here.

Suppliers

Colombia has to rely on countries abroad for suppliers. Parent plants come from the US or the Netherlands. Propagation is done in the grower's own nursery. In 1989 parental material to the value of 1.8 million guilders was imported from the Netherlands. Special crop protectants are also imported.



	strong	weak
Geography	- Situation favourable with respect to the US.	 Situation relatively unfavourable with respect to Europe. High transport costs.
Climate	- Favourable climate for outdoor cultivation.	
Raw materials	 Cultivation requires little energy. 80% of water requirement captured via roof of plastic greenhouses. 	- Costs of imported products, such as parent material, artificial fertilizer and pesticides are high.
Labour	- Low wage costs (approx. f8/hour). - Adequate unskilled labour.	 Low labour productivity. Higher skilled personnel scarce and expensive.
Capital	- American capital. Interest rate in US 5.4%.	- Inflation and interest rate in Colombia 27%.
Infrastructure	 Efficient air transport network. Direct air bridge with Miami (US). 	- Air traffic with other parts of the world is limited.
Knowledge infrastructure	- Large growers obtain market information via the marketing department of the sales organization.	 Knowledge frequently comes from the US or Europe (delayed). Small growers only obtain information through suppliers. Little exchange of knowledge. Research almost exclusively done by large companies.

Basic and high quality production factors

Economic variables

The Colombian growers mainly regard each other as competitors. The large companies have a powerful position and are important to the country as major employers and suppliers of income for the weak economy. Small and medium-sized businesses have little influence in the sector.

Colombia has a market economy, but the government has limited the import budget. This is mainly spent on parental material. The restriction makes importing machines virtually impossible. Many companies have been set up with American capital.

Government

The government stimulates exports of cut flowers to countries other than the US by granting tax discounts. It plays no part in research and the provision of information.

Summary and prospects

In recent years Colombia has increasingly developed into a fully fledged cut flower producer. Because of the good soil, the moderate climate and the integrated chain control the quality of the flowers is very good. Production costs are low (low wage and energy costs) and the infrastructure is good. In the long term, problems are expected with growth because of the increase in soil diseases.

The country is a strong competitor for the Netherlands, particularly on the American market. Until recently, Colombia supplied the American market with mass products at a low price and the Netherlands was responsible for introducing new crops. However, Colombia is increasingly realizing that it is important to offer a total range to ensure continuing success on the markets. It has therefore started diversifying the range.

Conditions for innovation are absent. For example, Colombia does not have its own breeding sector and there are no machinery producers. In addition, the government is unable to (partly) finance research and information in order to stimulate innovation. The poorly developed domestic market does not provide any stimuli which therefore have to come from the US. As a result of all this, Colombia depends on countries abroad for innovation, and these also include the Netherlands. This entails certain risks, such as a delay in implementing renewals or failure to gain access to renewals.

5.4 Israel

Supply and trade from Israel

Supply

The acreage of cut flowers has been increasing for years. After the collapse of the carnation market the acreage was reduced in 1990 (versus 1989) by 9.2% to 1480 ha. About 70% of the cultivation is done under cover. The acreage with traditional crops, such as Gypsophila, the rose and Ruscus is declining slightly or remains the same. The acreage of spray carnations has fallen sharply. New species are being given a place in the supply. The production of summer flowers such as asters, Chamaelaucium (wax flower), Solidaster and Phlox is expanding.

Trade

Israel is the world's forth largest exporter of cut flowers with a share of 4%. Exports in 1990 amounted to 250 million guilders, only 3 million more than in 1988. Exports are mainly aimed at the EC and mainly take place in the winter months. Distribution in Europe is largely channelled through the Dutch auctions. In 1989/90 57% of the stems exported went to the Netherlands, 20% to Germany (auctions and private importers) and 8% to the UK. Sales to Germany, the UK and the US fell, while exports to the Netherlands and Switzerland increased. Exports have stabilized at around 800 million stems in recent years.

Water

The use of water is limited. Cultivation under glass receives a relatively large quota. Because of the rapid growth in population, the good water supply will become an increasingly great problem.

Basic and high quality production factors

	strong	weak
Geography		 Situation relatively unfavourable with respect to Europe. High transport costs (8 ct per stem).
Climate	- Favourable climate.	
Raw materials	- Cultivation requires little energy.	- Water consumption strictly limited. - High costs of parental material.
Labour	- Sufficient unskilled labour. - Low wages (f 11/hour).	
Capital		 Indexed interest rate (5.5% + inflation 18%). Money difficult to borrow.
Infrastructure	 Efficient air transport network. Good approach roads. 	
Knowledge infrastructure	 Adequate information service. Much research into new crops, packagings and new sales possibilities. Research geared to practical cultivation. 	 Research only subsidized if partly financed by countries abroad. Few study clubs. Floristry courses only at university level.



Product development

Continuous efforts are made to find specific products new to Israel.

Domestic market

The size of the home market was estimated at 50 million dollars in 1986/87. This represents an average of 22 guilders per inhabitant, which is low. Flowers which cannot meet the quality requirements of countries abroad are sold at relatively good prices on the domestic market.

Network

Growers

There are 4000 growers, around 2000 fewer than 12 years ago. This points to a substantial increase in scale. The growers are under the supervision of the Flower, Bulbs and Ornamental Plants Marketing Board (Flower Board), a government body charged with monitoring the production and distribution of e.g. cut flowers. The Flower Board (FB) makes a forecast of the distribution of the acreage over the crops and supervises contract cultivation. In addition, it looks after the interests of growers vis-à-vis the government, foreign customers and organizations, besides guiding research and development projects.

Wholesalers and exporters

Exports are organized via three channels. About 65% is handled by FB, which works exclusively with auctions, 5% via private companies and 30% via Carmel/Agrexco.

FB supplies flowers to 16 auctions/wholesale markets, 7 of which are in the Netherlands and 4 in Germany. The growers are generally in direct contact with the auction/wholesale market. In that case, FB's role is confined to giving advice, providing transport and supplying market information.

Agrexco, a subsidiary of FB, does business directly with importers. It is 50%-owned by the government and 50%-owned by the growers. Agrexco carries out a strict quality control on the flowers collected, after which they are sold under the Carmel brand. Agrexco's share has been declining in recent years in favour of the auctions. The reason for this is the higher return gained at auctions where, in particular, more is paid for quality.

Suppliers

90% of the plant material comes from Israel itself. Cultivation is not highly mechanized, so there are few suppliers in the field of mechanization.

Economic variables

Israel has a market economy. The government exerts a great influence on the ornamental plant cultivation sector through the Flower Board.

Government

The Ministry of Agriculture, together with the flower growers, finances two research institutes where new species of flowers are developed. No part is played by environmental considerations.

Summary and prospects

In spite of the country's economic difficulties, declining profitability, the crises in agricultural credits, the fluctuations in the exchange rate of the shekel - resulting in higher production and transport costs the changing selling prices on the European market and the strong competition (from Spain, among others), cut flower cultivation in Israel has nevertheless developed into an important sector of agriculture. The reduction of import duties by the EC and the low dollar exchange rate have made a positive contribution to the developments.

The cut flower sector has increasingly developed from being a trend-follower to being a trendsetter. As a result of competition from cheap production countries such as Colombia, Spain and Kenya, the production of flowers such as carnations became unprofitable and made a shift to other products essential. The trend towards competitors taking over tried and tested crops is intensifying. It is therefore extremely important for

Campania and Lazio. The supply is fragmented as a result of production shifting to the south and the large number of very small nurseries. This entails high costs for the trade. The growers have to distribute their products themselves. To do this, they can choose to sell to the retail trade (directly or through a wholesale mar-



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the Israeli growers to come up with new products in good time. They have responded effectively to this development. Much of the research is now aimed at renewing the range. Israel has also reacted appropriately to the disadvantage of its geographical situation, with efficient air transport and extensive research into chrysanthemum and the rose. A shift is taking place from more traditional products to new varieties such as summer flowers.

Trade

Italv is the world's third largest exporter of cut flowers

Wholesale trade

The distribution system in Italy is both intricate and complex. Because of the highly individualistic attitude of the growers and the vested interests of the wholesale trade, the wholesale market has never really got off the ground as a price-forming institution. Some 30% of the local production is traded on the wholesale market, generally involving products of inferior quality. More and more imported flowers are traded on the producers' markets (wholesale markets where growers offer their products to wholesalers). The markets are very much out of date.

There is little concentration in the supply of cut flowers. The three main wholesale markets only account for the sale of 50% of the production. The wholesalers obtain only a small proportion of what they sell from wholesale markets. They are increasingly going to the retailers personally. The majority of the products (about 70%) come from their own region and the rest are imported.



Retail trade

Some 10,000 florists are estimated to be active in Italy. In addition, there are about 10,000 street traders. Street trading is mainly important in towns. From the national viewpoint, the flower shop is the main purchasing channel. A gross profit margin of 200% is not unusual.

Suppliers

The floristry sector is strongly dependent on imports from the Netherlands for parental material.

Economic variables

Since the growers themselves are responsible for sales, they mainly regard each other as competitors. The highly fragmented production and the lack of cooperation prevent growers from forming a power bloc. The intricate distribution structure enables the trade to exert a great influence on prices.

Italy has a market economy. The national government has little influence. As a result of EC membership, the floristry sector is confronted with increasing EC legislation.

Government

The strong bureaucracy constitutes a delaying factor for Italian life as a whole. The government has no policy specifically aimed at ornamental plant cultivation. There is, however, a general policy with regard to the use of pesticides.

Summary and prospects

Italian cut flower production is mainly aimed at the domestic market. Because of the high prices flower cultivation is profitable. The range is mainly tailored to the requirements of the critical Italian consumer by supplementing it with imported products and very seldom by altering the range grown in the country itself.

Italian exports mainly rely on the good quality of the products and the country's geographical situation with respect to the markets.

Weak points in the Italian cut flower sector are:

- fragmented production at a large number of small nurseries, little specialization and no year-round production, out-of-date knowledge of cultivation and high costs;
- the intricate, complex distribution structure and a high gross profit margin in the retail trade;
- the strong dependence on imported parental material.

The Italian growers have been unable to exploit the strong points such as the favourable climate and a good domestic market in terms of both quality and quantity.

5.6 Spain

Supply and trade from Spain

Supply

Cut flower production has risen tremendously in the last 5 years. The production value in 1985 was 480 million guilders, while in 1990 it had almost doubled to 855 million guilders at wholesale level. Between 1980 and 1990 the acreage fell by over 100 ha to 2300 ha, 61% of which was protected (under plastic or glass). Carnations are grown on over 60% of the acreage and roses on 20%. The range is therefore fairly limited. Attempts are being made to widen the range in certain production centres (e.g. South-West Andalusia). Production is concentrated in Valencia, which accounted for over 60% of the acreage in 1988. The acreage in Andalusia is expanding very rapidly.

Trade

Exports consist almost exclusively of carnations. About 10% of the production is destined for export. In



1990 the export value amounted to 87 million guilders, with carnations accounting for 76 million of this amount. Half of the exports go to the Netherlands, followed by Germany (18%) and the UK (14%). Generally speaking, exports show a rising trend, with a peak in 1989. Imports are also going up rapidly but are still limited in volume (37 million guilders in 1990). The Netherlands is the main supplier (78% of the import value), followed by Colombia with 16%.

	strong	weak
Geography	- Situation favourable with respect to Europe.	- Transport costs high, sometimes return freight possible.
Climate	- Reasonable favourable climate.	- Too hot for greenhouse cultivation in summer. Expensive cooling necessary.
Raw materials	- Cultivation requires little energy. - Land is cheap.	- Water supply sometimes a problem.
Labour	- Sufficient unskilled labour.	- Rapidly rising wage costs. - Insufficient skilled labour.
Capital		- High interest rate (16.0%) and inflation (6.7%). - Financing is a problem.
Infrastructure	- Reasonably good roadway network.	- Air transport limited.
Knowledge infrastructure	- Experimental stations have been set up.	 Training mainly practical. Horticultural schools are of a low level. Research and information inadequate. Information mainly provided by foreign suppliers. Little exchange of knowledge.

Basic and high quality production factors

Domestic market

The market for cut flowers amounted to 795 million guilders in 1989. Consumption is growing strongly but is still at a low level. On average, 20 guilders per person was spent on flowers in 1990. Prices are about twice as high as in Germany.

The market for cut flowers and pot plants can be segmented as follows: 53% for special occasions, 28% for the buyer's own use, 13% for cemeteries, 6% institutional.

Flowers are mainly bought to celebrate traditional feasts.

The florist has a 55% share of turnover, followed by street traders with 30%. The garden centre, producer and supermarkets each have a 5% share. The role of the supermarket is expected to increase.

Network

Growers

Growers supply a large proportion of the products they sell to the wholesale trade or act as wholesalers themselves.

One of the weak points is the highly fragmented supply. For some years now there have been initiatives aimed at setting up small cooperatives for the joint distribution of the products. This only concentrates the supply to a slight extent. The cooperatives also carry out quality checks.

Figure 26: Domestic sales structure in Spain



Wholesale trade and exporters

The wholesale trade supplies the retail trade and the producers/exporters or exports itself. Imports are mainly handled through the wholesale trade.

Suppliers

Parental material is generally imported from the Netherlands and Israel. Most of the materials and equipment needed for the horticultural industry can be obtained on the Spanish market. Suppliers are frequently located abroad.



Source: Dutch Flower Auction

Economic variables

Spain has a market economy. The government's role is limited and mainly stimulatory.

The growers are geared to individual operation and regard each other as competitors, although they sometimes join forces in cooperatives for sales purposes. The wholesale trade is the most powerful link in the chain.

Government

Production in the Spanish floristry business has increased sharply with the aid of subsidies from the Spanish government and the EC. The floristry sector is regarded as an important source of employment. To make the pattern of sales more transparent four wholesale markets have been created (51% governmentowned). At present (1991) the government is doing little specific to stimulate the cut flower sector. The support scheme for the modernization of agricultural enterprises has been temporarily suspended. The growers can take advantage of an interest rate subsidy whereby interest works out at 5-7%, and a limited support scheme for greenhouse cultivation.

Summary and prospects

Flower production has risen sharply, mainly as a consequence of the explosive growth in Almeria and South-West Andalusia, where the basic factors are favourable and production is strongly stimulated by subsidies from the EC and the Spanish government. It may be expected that this growth will be much lower in the coming years because the subsidies have been reduced.

As a result of a higher level of prosperity, domestic consumption is expected to continue rising. These two developments will give a boost to imports. At the same time, domestic production will be aimed more at the Spanish market.

The basic factors for Spain are still favourable: low wage costs, low land prices and low energy costs. As a result of the process of EC unification wage costs will rise rapidly, however. The growers also have to contend with a high interest rate. The high quality factors, the network and the economic variables are not strongly developed so that it is scarcely possible to compensate for a rise in the cost price by increasing efficiency. Spain appears to be developing into a consumption centre, rather than becoming a strongly competitive exporter. Little threat is therefore to be expected from this quarter. Favourable export opportunities still exist for a number of good quality products (e.g. carnations in winter) with a low cost price.

5.7 Kenya

Supply and trade from Kenya

Supply

Production is almost entirely aimed at the export market. In terms of acreage Statice (156 ha) and spray carnations (150 ha) are the main products. Other crops of which more than 10 ha are cultivated are: the Delphinium. Alstroemeria, rose, Ornithogalum, standard carnation and Solidaster. The importance of roses and summer flowers is increasing. An endeavour is being made to grow products which are not cultivated in Europe or which are only moderately available in winter. Production has more than trebled since 1980, going from 3,788 tonnes in 1980 to 13,433 tonnes in 1989. The main production areas are concentrated around Lake Naivasha. The acreage is estimated at 544 ha, of which about 10% is covered. From the cultivation viewpoint, year-round production is quite possible, but supplies are mainly delivered between October and March, i.e. counter-cyclical to the European supply pattern.



Trade

Kenya, with 1% of international exports, is the world's sixth largest cut flower exporter. Exports are almost entirely aimed at Europe, those to Germany and the UK consisting mainly of spray carnations. Some other species are also exported to the Netherlands. The export value more than doubled between 1980 and 1990, going from 30 million to 77 million guilders. The Netherlands became more important than Germany as a customer in 1989. The strengthening of this country's function as a trade centre is clearly being achieved at the expense of the other European countries.



Trade

Denmark is the world's second largest exporter of pot plants with a share of 16%. Exports of pot plants have been growing by about 7% per year since 1985. Between 1980 and 1990 the export value rose by 173% to 590 million guilders. Approximately 54% of the plant exports are flowering varieties. Germany is the main customer (37%), followed by Sweden (22%), the UK (8%), Italy (8%) and France (7%).

Imports in 1980 amounted to only 7.6 million guilders but had grown to 45.2 million guilders in 1990. The Netherlands is the main supplier and accounts for 70% of Danish imports, followed by Germany with 21%. The Netherlands mainly supplies green plants.

Computerized registration system

A check is kept on the plant supply with a computerized registration system (Dan Pot Data). This makes

	strong	weak
Geography	 Situation favourable with respect to Europe and Scandinavia. Low transport costs. 	
Climate	- Mild climate without many extremes.	- Cultivation in heated greenhouses essential.
Raw materials	 Sufficient good quality land and irrigation water. Efficient use of energy. 	- Energy relatively expensive.
Labour	- Sufficient labour available.	- Labour costs high (f29/hour).
Capital	- Low inflation (2.6%).	- Capital expensive (13.4% interest rate) making investment more difficult.
Infrastructure	 Well-developed roadway network. Ferry services to Scandinavia. Computerized registration system. 	
Knowledge infrastructure	 Extensive range of courses and network of study clubs. Open knowledge infrastructure; the sector is willing to pay for knowledge. Information spreads quickly. Much research, from fundamental to practically oriented. Good quality training courses at various levels. 	

Basic and high quality production factors

it possible to inform customers immediately whether a particular product is or will be available, thus preventing delays in delivery. Thanks to feedback of the information, growers can cultivate a range geared to the demand.

Domestic market

Danish expenditure on pot plants is very high, averaging 125 guilders per person per year. There is a preference for flowering plants. Total consumption in 1989 was 640 million guilders. Calculated in Danish kroner this is a rise of only 3% compared with 1985. The main points of sale are the flower shops (45% of turnover) and supermarkets (40%).

Network

Growers

There are 683 pot plant nurseries with an average area of $4500m^2$ (compare Belgium: $3200m^2$ and the Netherlands $8400m^2$). Few new businesses are being established, although economies of scale are being achieved. Production costs for labour, energy and equipping a business are higher than in Belgium. Danish growers have made large investments in modern equipment, making mass production possible.

Thanks to the high productivity and good cooperation in both production and sales the businesses are profitable. The deflated prices for pot plants in 1989 were the same as in 1987. A strongly growing international supply is putting prices under pressure.

Wholesale trade and exporters

A characteristic feature of Danish sales is the mediation system. In the case of a demand market this has clear advantages. There is direct contact between the customer and the producer, the path between them is shorter and the products are easier to keep track of. But now that a supply market is increasingly appearing sales are slowing down because the price mechanism works too sluggishly to enable demand to be geared to supply.

Sales are largely handled through the Gasas (cooperative sales organizations run by growers), Aarhus and Odense being the most important ones. In 1989 the Gasas, including Exposa, had 68% of the turnover, 19% went to BLOMEX (the association of Danish flower exporters) and 11% went via KGT (a wholesale vegetable market).

In reaction to the concentration of demand, contracts between producers' organizations and the retail trade are widely used on the domestic market.

Both the growers and wholesale trade and exporters

are organized in DEG, an association whose activities are comparable to those of the Commodity Board for Ornamental Crops (PVS) in the Netherlands.

Suppliers

The task of the Havebrugscentret is to cultivate new parental material which is propagated and distributed through the Danish propagation station. Packagings are developed and distributed by Gasa. There are suppliers who concentrate especially on pot plant cultivation, although there are also frequent imports from the Netherlands.



Economic variables

Denmark has a market economy in which the government plays a stimulatory role. The growers are the most powerful party in pot plant cultivation. They are strongly organized and have a great deal of influence in the Gasas. Banks take a very critical view when supplying capital.

Government

The government is responsible for fundamental research at the university and in various research institutes. No financial support is given for practicallyoriented research. In addition, the government finances a horticultural marketing committee whose task is to promote production and marketing. Information is also jointly financed by the government

which - as in the Netherlands - is playing a less active role.

6. International competitiveness



Summary and prospects

A reasonable climate, good raw materials and a good infrastructure are strong points of the Belgian pot plant sector.

Pot plant production is well organized. Cultivation is concentrated in one region, and is mainly focused on the Azalea and green plants. There is information, research and an active growers' organization. In spite of these preconditions, the knowledge infrastructure is not very open, with competition between growers playing a big role in this respect. The sale of pot plants constitutes a problem. The distribution structure lacks transparency and the capacity is not always adequate.

The domestic market is not fully developed. The average amount spent does not rank among the top figures (but is higher than in the Netherlands) and the number of households buying pot plants is low. A possible cause is the lack of effort to promote the product.

The prospects for the Belgian pot plant sector appear to be positive, particularly if the distribution structure is improved. It may possibly seek to link up with the Netherlands for this. The growers' organization is paying increasing attention to improving cooperation, which can have a favourable effect on both the exchange of knowledge and the sales structure.

Chapter 5 presented an overview of the competitiveness of the main countries which engage in floristry products. The mutual competitive positions of these countries will now be analysed in this chapter. Countries can derive their competitiveness from a low cost price, a high level of investment, rapid innovations or their competitive position and innovations in the past. Those which derive their strength from rapid innovations have the highest competitiveness. These countries are not dependent on a low cost price or investments in innovations by other countries, but are strong enough to make innovations themselves. These innovations are the result of a good balance between the production factors, the economic variables, domestic demand and the networks. An active search is made for new opportunities and the best answer to threatening developments.

In the cut flower sector the Netherlands is the only country which derives its competitiveness from rapid innovations. The Netherlands has great innovative ability but this is still strongly concentrated on the supply side. Disadvantages for the Dutch sector, such as expensive raw materials and labour and the less favourable climate, are compensated by strong points such as high productivity, a tightly-knit and efficient distribution network and a wide, innovative range. The favourable situation with respect to Europe, the ability to invest, a good infrastructure, a great deal of knowledge which is available to everyone in the sector and the network in which the sector is incorporated constitute a good seed-bed for innovations. The network in which the sector is incorporated is not only vertical - from the supplier via the producer to the consumer but is also increasingly developing horizontally (at grower level towards other ornamental plant sectors and vegetables grown under glass). Although the Dutch sector also competes internationally in the area of cost it does not depend on low costs for labour, land, raw materials and capital. Its strength is based more on its ability to innovate rapidly. This is reflected in its productivity, quality and innovative range, high professional skill and the latest technology.

In markets where cost price and volume are important, the Netherlands will experience increasing competition, particularly from Colombia and Kenya. By continuing to innovate both technologically and in the range produced the Netherlands can maintain a permanent lead for cut flowers and pot plants in Europe.

Spain and Kenya are strong in terms of basic factors. The climate is favourable, and there is an adequate supply of cheap land, water and labour. On the other hand, there are no innovative stimuli from a knowledge infrastructure, strong networks and the domestic market. These countries also do not have the capital to develop knowledge and technology themselves on a large scale, or to buy it in other countries such as the Netherlands. As a result, Spain and Kenya are only able to produce products which require little technology and knowledge. They can offer a reasonable volume of these products at a low cost price on the world market. A further growth in competitiveness is possible if capital becomes available and they are willing to invest.

As a result of rising production costs Spain's international competitive position is weakening, Good export opportunities still exist for a number of good quality products with a low cost price. The remaining production will be sold in the region.

In Kenya, capital will only be available to a limited extent. This hampers innovation. The growth in production depends on the availability of cheap air freight facilities. Kenya can remain strong in products with a high volume and a low cost price.

Israel and Colombia derive their strength from a high level of investment. A great deal is invested in technology, in many cases following the Netherlands. The high quality factors (infrastructure and knowledge infrastructure) are strengthened with the aid of investments. As the result of strong basic factors and advantages of scale, standard products can be readily supplied through the international market channels.



Israel is concentrating increasingly on innovative and high-margin products, a market which the Netherlands also aims at. Since the volume of Israeli production is limited and becomes available in a different season, little competition will occur. Colombia has the potential for rapid growth. Sufficient money is available for investments in knowledge, capital goods and the range. As a result of the rising production and increasing air transport, sales to Europe will go up further. The cost price level has a great influence on prospects. The high expense of transport must be offset by a low cost price.

	Pot plants + cut flowers	Cut flowers		Pot plants				
Geography Climate Land and raw materia Labour Capital Infrastructure Knowledge Domestic market Network Government Economic variables		Col.	Isr.		Sp. 3 3 3 3 5 5 6 6 6		Den.	Bel.

Figure 27:Comparison of competitiveness

_____ poor / very poor and expensive

----- moderate

good

very good / amply available and cheap

- Explanatory note:
- 1. land expensive 2. water scarce
- 2. water scarce
- 3. water expensive
- 4. wages still low but rising rapidly
- 5. knowledge comes from other countries
- 6. individualistic growers

Source: Rabobank

7. Strategy

It will only be possible to compete on the European market if the cost price is kept down and sufficient affordable air freight facilities are available.

As regards <u>Italy</u>, sales on the domestic market are of primary importance. Most producers do not aim at international markets. There is scarcely any reaction to changes in the market. The range is very like that offered by Kenya, Spain and Colombia. The main factors which explain the exports are the proximity of the sales markets, the high quality and the differing size of the product. As a result of inefficient production and distribution there is a danger that Italy will even start losing ground in its own market.

In the pot plant sector both <u>Denmark</u> and <u>the Netherlands</u> are innovation-oriented. These two countries have highly organized networks and there is a great deal of cooperation. The strong networks and the welldeveloped knowledge infrastructure, linked to a critical domestic market, constitute a sound basis for innovation. The dynamism in the sector can be further reinforced by a more market-oriented method of operation. Both countries will be able to maintain their competitive position. In this respect, Denmark concentrates mainly on flowering plants.

<u>Belgium</u> derives its competitiveness from investments in the knowledge infrastructure and foreign innovations. The strong specialization in a small number of products and the small size of the sector make independent innovations very expensive. Belgium plays a leading role for a number of products, in which respect it also benefits by innovative developments in the Netherlands and Denmark. Belgium will also occupy a strong competitive position for these products in the future. This position will probably be further strengthened by the fact that the pot plant sector is increasingly forming a part of the Dutch network. The Dutch floristry sector has a very strong position on the international market. In the cut flower branch the Netherlands is the only country which derives its competitiveness from an optimum interchange between production factors, stimuli from the demand side, the networks in the product column and the economic variables. As a result the sector concentrates strongly on innovation and Dutch competitiveness is very high. The Dutch cut flower sector is by far the world's most important supplier of knowledge, parental material, innovations and flowers. The Dutch pot plant sector has the same position inside Europe, only the Danish pot plant sector having a comparable degree of competitiveness.

7.1 Market strategy

The floristry sector employs a strategy whereby, under the present market circumstances, the increased supply can only be sold by increasing pressure on returns. Various important markets, such as Germany, France and Scandinavia, are showing signs of saturation. It would seem that the volume-based strategy, in which all products are traded as mass products, can no longer stimulate demand.

In view of its strong position on the international market, the Dutch floristry sector is faced with the choice of adopting a strategy which reflects its leading role more strongly. This so-called market leader strategy may be regarded as an extension of the volume-based



strategy and it involves segmenting the market. For example, a distinction is made between mass segments and quality segments. This is followed by a specialization aimed at servicing groups of buyers with more or less similar wishes (market segments) as well as possible.

Market segmentation

The strong points of the Dutch floristry sector are quality, compliance with phytosanitary requirements, a wide range, rapid communication and distribution. Segments in which quality and innovations in the range link up with consumers' wishes and where prices are usually higher therefore constitute an attractive market.

The Netherlands cannot stand out from its competitors on the basis of a low cost price. Production costs may even rise still further because of the environmental problems, production centres filling up and the tight labour market. It is precisely in the mass product sectors that the Netherlands is experiencing strong competition from foreign suppliers (e.g. Colombia and Kenya), who can put good quality products on the market at a low price as a result of favourable production factors. Competition based on mass products. where the low cost price is the main sales argument, is therefore less advantageous. Market opportunities in this segment will only continue to exist for businesses which can keep costs low as a result of extensive specialization. While market policy remains unchanged, the Dutch floristry sector is clinging too much to this market segment.

Entrepreneurs who do not specialize in mass products are concentrating on servicing one or more segments with high quality requirements. Because of their lead over competitors, innovation here can be translated into returns. In addition, the sector is reinforcing its reputation as a supplier of high quality and innovative products. Sales to mass segments can also continue to benefit by this high quality image.

In the case of market segmentation, several links in the chain play a part. In the first place there is the consumer, who makes demands with regard to the range, renewals in it, quality and price. In addition, there is the retail trade which mainly makes demands with regard to price, keeping qualities, promotion and distribution. This results in a number of combined retail trade/consumer segments. One example is the segment in which the florist wants a first-class product and aims to advertise new products regularly, and where the customers are quite prepared to pay slightly more for a high quality product.



Market research

A great deal of additional information is still needed in order to be able to identify and select market segments within which high returns can be achieved. Among other things, the data are used to determine into what segments the market can best be divided. This may be based on the retail channel and the consumer's buying behaviour (such as street trading with a limited, lowpriced range), but also, for example, on the retail channel subdivided according to the consumer's buying motives (such as the gift segment of the specialized florist's shop).

Next, optimum ranges of products and services can be developed which are in line with the specific requirements of the segment. Existing market research in the sector, which is strongly focused on collecting data from the recent past, must be supplemented by information on possible developments in the various market segments in the near future. The existing data are frequently not specified by sales channel, cannot readily be used for developing an active marketing strategy for each segment and do not really meet the growers' need for information which can be used in making investment decisions.

The wishes of market segments must be continuously inventoried, after which prices, products (quality, range, packaging, etc.), distribution and promotion (including service) must be geared to these. In a market leader strategy, a knowledge of the developments in the various market segments are an important starting point for formulating the auction and wholesale policy and for business development and management by entrepreneurs.

Opting for a market leader strategy therefore also means investing in research into both segmentation and trends. This is extremely essential for a range of products with an export turnover of more than 7 billion guilders.

7.2 Distribution strategy

More detailed research may show that the requirements of the market segments differ from what is offered by the existing products, including the services of auctions and the wholesale trade.

Services better geared to requirements can save unnecessary costs in the chain and make the product more attractive to the retail trade and the consumer.

Retail trade

In retailing floristry products, new forms of distribution are occurring in many countries of the world, such as sales through petrol stations. The importance of sales through chain stores is increasing. The lower margins in this channel and the increasing consumption can act as an incentive for specialized flower shops to reduce their margins. The resulting drop in price will stimulate demand. This process can be still further promoted by the supplier providing more customized services.

Auctions

The auctions play a central role in the distribution process. Combining the supply creates marketing power for the growers. They also perform trading functions in the area of e.g. price formation and funds transfer, efficient logistics, marketing aspects (such as a wide range, packaging and integrated chain control) and supplying information. In addition, the auctions have indirect functions such as maintaining a balance between the buyer and seller and handling sales efficiently. The auction system also makes it possible for producers to specialize and can also stimulate cooperativeness and the exchange of knowledge.



The auction functions are therefore not only a cornerstone in the sales sphere, but are also essential for the sense of solidarity among colleagues which strengthens and confirms the economic variables, the system of values and the network. Any undermining of the auction system can therefore have serious consequences. This does not mean that some parts of the system should not be adjusted to the demands of a changing market.

The diversity in the retail trade has radically altered the requirements in the field of distribution, price formation, packaging and service. Since auctions still do not meet these changed demands, this sometimes results in sales being made outside the auctions. The importance of knowledge about developments in the retail trade is evident here again.

Opting for a market leader strategy can result in a number of segments getting their own 'auction formula' to supplement the clock system and the mediation office. This can lead to a gradual segmentation of the auction formula, with the demands of the segment being met as early as possible in the chain. This prevents unnecessary loss of quality and time, as well as needless costs. An example of this can be carrying product lines for retail chains. The floristry products are then put into the sales packaging at the point of production. The prices are formed at the auction and the grower supplies the flowers directly to the retail chain. When they have to be repacked, however, the first packaging is only a source of extra costs which eat into the profit margin. Segmentation in the auction system can thus strengthen its position as a world trade centre and prevent its function from being undermined.

It may be expected that - partly as a result of these developments - price formation and logistics/the distribution of the products will become increasingly separate in the future. This is already the case with the mediation office. A careful analysis of the consequences of market segmentation, the development of data networks and the increasing internationalization of trade are leading to new sales formulas. This will make physical product flows via the auctions less essential and a further optimization of distribution can take place, while the position of the auctions is maintained or even strengthened. The width of the product range and the need to maintain the important auction functions make it difficult to develop these new sales formulas, however. The auctions are increasingly becoming a marketing organization which is actively searching for new market segments and the production appropriate to these. Price formation and the management of the logistical product flows are an integral part



of this, without the products also having to be physically present in the auction buildings. All this will only be possible if customers can rely entirely on quality certification and can obtain recourse if necessary.

Wholesale trade

Opting for a market leader strategy will also lead to segmented distribution. Customer-oriented sales formulas are being developed for the main segments. The consequence of this for the wholesale trade and exporters is that they too will have to specialize in order to continue playing their strong part in these renewed sales formulas.

7.3 International strategy

Trade centre

The Netherlands is a centre of international trade. The very efficient - almost worldwide - distribution system is an important plus point for Dutch growers. Foreign suppliers also wish to benefit by this. It will probably not be possible to exclude producers in other EC countries from it for much longer. In the longer term, this also applies to new EC members such as Scandinavia, Switzerland, Austria and some Eastern European countries. A successful strategy will make it possible to cope with the extra supply. The right product at the right price with the right service and promotion at the right place will strengthen demand.

Consideration must be given to the extent to which foreign suppliers will gain access to knowledge for the market leader strategy. To protect returns, it is important to maintain the innovative advantage for the Netherlands. When this advantage is assured, the admission of foreign suppliers to the auctions will constitute less of a threat and the Netherlands will reinforce its position as a centre of international trade. Opting for a market leader strategy means that the Netherlands must be able to service many relevant markets and market segments throughout the world. In addition to mass segments, new quality segments still to be identified will also be supplied. By virtue of this alone, demand through Dutch trade channels will rise and the favourable price formation will be maintained. In addition to this, a number of nearby markets can be developed which offer reasonable growth potential and can be serviced through existing sales channels. Examples are the Scandinavian countries, the UK, Belgium and a number of Central and Southern European countries. Demand here can be given a fresh boost by a combination of increased efficiency in the business chain and better availability. Working distant and complicated markets requires a great deal of central support. In the medium term, more results can possibly be achieved by making this effort closer at hand (e.g. in Eastern Europe).

7.4 Cultivation strategy

Cultivation

A market segmentation strategy also has consequences for the growers. In order to operate on a customeroriented basis they will specialize in products and qualities, depending on the requirements of the market segments. For some of the growers this will mean that they will have to specialize further in difficult crops and products with a high added value, such as new varieties. Another group of growers will continue to concentrate on mass products (such as chrysanthemums for the impulse-buying market), with uniform high quality and year-round supply at a competitive price.

Since developments in market segments will affect growers more directly (supplying particular segments means appropriate packaging, etc.) the grower will want more market information. A good flow of market research data to producers too will then be more urgently necessary. This means that the auctions, as a marketing organization, can play a coordinating role in this sector. Among other things, specialization has consequences for investments and the exchange of knowledge. Greenhouses are becoming increasingly specialized for particular crops. This makes changing over from the one crop to the other more and more expensive. The exchange of knowledge is becoming even more important. There is a danger that specialization will lead to knowledge becoming compartmentalized or even protected. This would adversely affect the basis of Dutch success, namely the capacity for repeated innovation. The information services, together with the Dutch Horticultural Study Groups (NTS) and the auctions will have to play a part in keeping knowledge accessible, also from and to groups of growers working for specific market segments. It is only if an open exchange of knowledge remains possible that the high level of innovation can be maintained.

In addition to market developments, the government also plays a part in what is going on. The stricter environmental requirements are regarded as a threat to the competitive position, particularly because they lead to increased prices. In the case of the volume-based strategy employed at present that conclusion is correct. With a changeover to the market segmentation strategy, a relatively environmentally friendly form of cultivation can be used in promotional messages as an extra quality feature of Dutch production. A greater threat is the curtailment of the entrepreneur's freedom as a result of detailed legislation. The

heur's freedom as a result of detailed legislation. The cultivation of certain products may possibly be prohibited. Problems also threaten to occur if legislation results in production for export to countries with zero tolerance becoming impossible.

Resistant varieties are now more essential than ever. These, however, must also comply with the other and increasingly complex market requirements (colour, perfume, etc.).

Breeding

The breeding sector is driven by grower demand. Up to now, the emphasis here has been on highly productive 'easily growable' crops. In addition to this, the future breeding strategy will have to be based more on the consumer's wishes (identified by research) as regards, say, perfume, vase life and varieties which can be grown in an environmentally friendly way and/or be propagated faster, in order to be able to respond more quickly to changes in demand. Here, incidentally, there is a danger that this will lead

to such a small sales potential (e.g. the Dutch demand for resistant varieties), that the breeder will lose interest in investing in research in such a small segment. The grower may possibly choose to concentrate on requirements from abroad which are easier to meet and opt for products with a greater potential turnover.

Part of the potential turnover of the breeding nurseries is not achieved because the protection of their work by growers' rights and patents is not yet operating adequately. For example, Colombia has not joined a new UPOV treaty. Incomplete protection adversely affects the profitability of the breeder and thus limits further investments.

The developments outlined in the rest of the business chain are also compelling breeders to specialize in market segments. This means there is a need to operate on an increased scale in this labour- and capitalintensive branch of industry by cooperation and mergers between companies or by seeking alliances with multinationals which are more geared to Research & Development. Vertical cooperation with successive links in the chain will also have to be considered.



Because of the strategic importance of good parental material it is conceivable that breeders and customer groups will be prepared to invest in these. A strong concentration has already been taking place in the breeding industry in recent years.

Propagation

The Netherlands partly owes its position in the world to the rapid flow of parental material from the breeder to the growers. The fast operating propagation sector is frequently linked to the breeders. In the case of small plants, propagation is often done by the growers themselves. The need to speed up breeding and propagation is becoming even greater because of the shorter product life cycle and the related need for more rapid innovation.

By exporting parental material, breeders and propagators also contribute to the rapid spread of knowledge throughout the world. These exports make it possible to pay for capital-intensive breeding and propagation. One consequence of this, however, is that the Dutch floristry sector has to keep on innovating in order to stay ahead of the supply from abroad. The propagation industry, too, is setting up branches worldwide to enable it to stay close to the markets and utilize the advantages of being established locally.

Final remarks

The Netherlands has a very strong position on the world market. The volume-based strategy will, however, result in reduced margins both now and in the future. A number of markets are showing signs of saturation, resulting in great competition on the mass product market.

A market leader strategy, rather than a volume-based strategy, can convert the Netherlands' strength into returns and also reinforce the country's position as a centre of international trade. Pursuing a market leader strategy means that sales (product, services, price and promotion) will be built up on the basis of the consumer's wishes. Quality, innovations and a wide range offer opportunities of also servicing quality segments where a higher price is normal. New sales formulas can lead to growing concentration on customers in the segmented market. This can give a fresh boost to demand, even in saturated markets. The Netherlands can thus stand out from its competitors and strengthen its leading position. Rabobank Nederland New York Branch 245 Park Avenue New York NY 10167 U.S.A. Telephone: +1212 9167800 Telefax: +1212 8180233 Telex: 424337

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