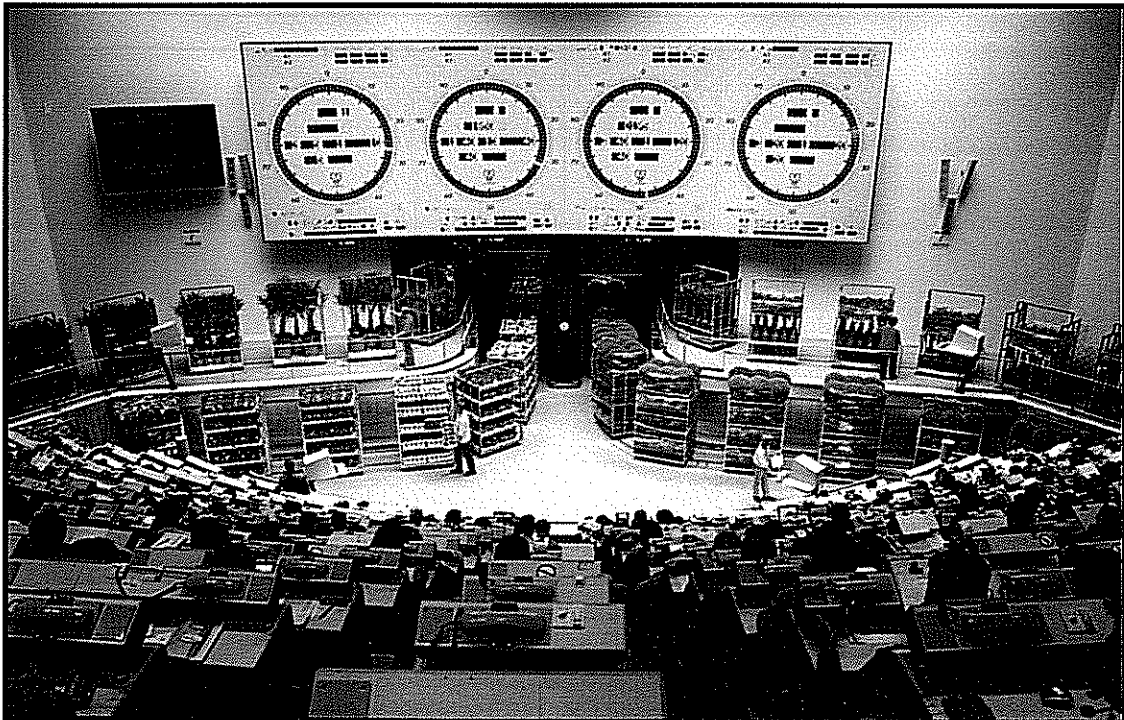


## Opportunities for Namibian Farmers:

### Fresh-Cut Flowers



NASSP Novel Products Series, Nr. 2

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## **Disclaimer**

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## **Executive Summary**

Namibian farmers have generally relied on a narrow economic base, regardless of their farming activities. The limited market/product base means that markets in other countries as well as niche markets (and chances for import substitution) available within Namibia are not exploited. However, it is possible to move away from a limited market base and to take advantage of niche and novel products. One such a product is fresh-cut flowers.

As such, the worldwide demand for fresh-cut flowers, house and garden plants amounts to a multi-billion United States (US) Dollar industry. Traditionally, the fresh-cut flower market has been dominated by North American and Western European growers. Recently, growers from all over the world have begun to compete in this market. Although the need for adequate capital, know-how and infrastructure are barriers to entry in this industry, increasingly cheaper air transport, favourable exchange rates, and cheap local labour has made this possible.

Currently, the Netherlands, Kenya and Colombia are ranked among the top 5 exporters of fresh-cut flowers in the world. Existing producers have shown that owning a cut flower business in Namibia is profitable given access to capital. Remember, that the worldwide flower industry is a multi-billion US\$ industry. To this should be added a word of caution. Farming with flowers is not a get rich quick scheme. It requires the same level of dedication and know-how to farm successfully with as say with grapes.

## List of Abbreviations

SA	South Africa
EU	European Union
US	United States
MAWRD	Ministry of Agriculture, Water and Rural Development
NBRI	National Botanical Research Institute
MFA	Ministry of Foreign Affairs
MTI	Ministry of Trade and Industry
UNECE	United Nations Economic Commission for Europe
GAP	Good Agricultural Practices
HACCP	Hazard Analysis Critical Control Point
PPECB	Perishable Products Export Control Board
SPS	Sanitary and Phytosanitary
PC	Phytosanitary Certificate
FSRIA	Farm Security and Rural Investment Act
USDA	US Department of Agriculture
AMS	Agricultural Marketing Service
FAIRS	Food and Agricultural Import Regulations and Standards Report
GSP	Generalized System of Preferences
GATT	General Agreement on Tariffs
WTO	World Trade Organization
MFN	Most Favoured Nation
MoF	Ministry of Finance
AGOA	African Growth and Opportunity Act (AGOA)
USITC	US International Trade Commission
USTR	US Trade Representative

HTS	Harmonized Tariff Schedule
USITC	US International Trade Commission Tariff
TARIC	Integrated Tariff of the European Communities
CITES	Convention on International Trade in Endangered Species
MET	Ministry of Environment and Tourism

## 1. Opportunities in Novel Products

Namibian farmers have generally relied on a narrow economic base, regardless of their farming activities. Sales of livestock are considered a mainstay of cash income by many farmers. In some parts of the country crops such as *mahangu* (pearl millet) and *white maize* provide for both own consumption and sale into the market. This limited market focus puts Namibian farmers at a disadvantage because their market options are narrow. The main destinations for Namibian products are either South Africa (SA), or the European Union (EU) with cattle, goats and sheep being the primary products. The limited market/product base means that markets in other countries as well as niche markets (and chances for import substitution) available within Namibia are not exploited. A limited product base means that income can be subject to shocks such as adverse changes in prices. It also increases the vulnerability of farmers to drought and other environmental shocks. However, it is possible to move away from a limited market base and to take advantage of niche and novel crops. Farming with fresh-cut flowers offers such an opportunity.

## 2. Farming with Flowers

People have always held a close affection for plants in and around their homes. Not only are they things of beauty, they also affect human mood. It is not lost upon the business community that an office well decorated with flowers and plants, or simply the natural setting of a garden or nature retreat, may make all parties more agreeable to concluding business deals. Flowers and plants have always formed part of ceremony be it weddings, diplomatic functions, dances, parties, or any event where people gather. As such, the worldwide demand for fresh-cut flowers, house and garden plants amounts to a multi-billion United States (US) Dollar industry. Traditionally, the fresh-cut flower market has been dominated by North American and Western European growers. Recently, growers from all over the world have begun to compete in this market. Although the need for adequate capital, know-how and infrastructure are barriers to entry in this industry, increasingly cheaper air transport, favourable exchange rates, and cheap local labour has made this possible. Currently, the Netherlands, Kenya and Colombia are ranked among the top 5 exporters of fresh-cut flowers in the world. They emphasise roses, chrysanthemums and carnations. The share of roses is growing steadily with that of carnations stagnating. Because of this, new entrants into this market concentrate on roses for their favourable value-to-weight ratio and high sales potential.



*A typical European Greenhouse for roses.*

### 3. Crop Selection

Though roses offer attractive alternatives, crop selection should be governed by at least the following considerations:

#### 3.1. Growing Environment

Flowers grow best in mild, humid climates with good rainfall. Namibia enjoys near year round sunshine, though rainfall is seasonal and the pattern uncertain. Exposure to sunlight is essential for plant growth. This offers an advantage over European countries which have more overcast days per year (Van Liemt, 2000). Sunshine in Namibia results in extreme heat conditions due to the low levels of humidity across virtually all of the country. It is recommended that plants be grown under shade nets or in glass greenhouses or tunnels covered with polymer plastic. The life span of shade nets is about 5 to 10 years and that of the polymer plastic is about 3 to 4 years. Shade netting is sold according to the degree of sunlight it allows to pass through.

**Table 1: Characteristics of Shade Netting**

Degree of sunlight	Type	Cultivation of	Colour	Wind red. %	UV prot. %	UV Trans. %
Good	10% shadecloth, monofilament, 30% construction	Ro, Cr, Ca	White	-	33	67
Good	12% shadecloth, monofilament, 40% construction	Ro, Cr, Ca	White	-	37.5	62.5
Good	18% shadecloth, monofilament, 50% construction	Ro, Cr, Ca	White	-	52	48
Fair	40% shadecloth, monofilament	Seedlings; Hail resistant	Black	25	41	59
Partial shade	50% shadecloth, monofilament	Seedlings; Ge, Ir	Green	50	52	48
Partial shade	55% shadecloth, monofilament	Seedlings; Ge, Ir	Black	50	52	48
Fairly dense shade	70% shadecloth, monotape	Li	Black	Prot. barrier	71	29
Dense shade	80% shadecloth, monotape	An	Black	Prot. barrier	80	20
Dense shade	85% shadecloth, monotape	An	Black	Prot. barrier	85	15

Ro = Roses, Cr = *Crysanthemums*, Ca = *Carnations*, Ge = *Geraniums*, Ir = *Iris*, Li = *Lilies*, An = *Anthuriums*.

**Table 2: Component Prices of Shade Net Greenhouse**

Component	N\$*
Shade netting 1m x 3m	40,37– 57,76
Tar pole 10/12,5 cm x 270 cm	62,84
Steel wire 2,100 m	391,64

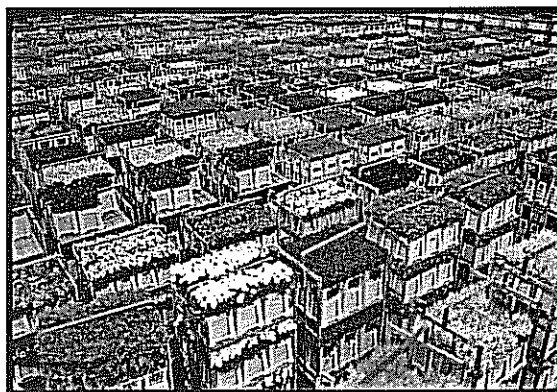
\*: Prices Pupkewitz Megabuild March 2004.



Soil type and preparation is a major factor in determining the quality of flower produced. A soil pH of 5.5 to 6.5 which is moderately to slightly acidic is ideal (SUNY College of Environment and Forestry, 2004). In Namibia it tends to be alkaline, thus requiring treatment with fertilizers or compost. Water quality too is a critical component. In some parts of the country the water may be too saline. Any fresh-cut flower operation, no matter how small, requires constant access to water – and lots of it. This may require the establishment of a borehole. A borehole with pump on average costs around N\$ 70,000. A hydroponic system may conserve water for re-use, but also requires expensive pumps to operate. It is recommended that any potential grower contact the Directorate Research and Extension of the Ministry of Agriculture, Water and Rural Development (MAWRD) for an on-site appraisal of climatic, soil and water conditions before investing in a project.

### 3.2. Appropriate Species

Plant material should be chosen in consideration of climatic, soil and water conditions. Here, again, the Directorate Research and Extension of the MAWRD, as well as the National Botanical Research Institute (NBRI), can be of assistance. Nurseries and garden centres such as *Ferreira's* and *Wilde Eend* may also be able to provide technical information. The ideal crop has a high production per square metre, is easy to harvest, enjoys a post-harvest life of 7 to 10 days or longer, and has a long production period with repetitive harvests. Production management, harvest, pest and disease control is influenced by the growth cycle of the species chosen. *Annuals* complete their growth cycle in one season, i.e. they have to be replanted every year. An example is the sunflower or the snapdragon. This raises the cost of production but at the same time reduces the cost of managing disease and pests. They also tend to have a longer blooming season than perennials. In botany *perennials* are plants that live three seasons or more, e.g. the buttercup. Soil preparation is more important with these species since their life cycle is longer. As such they are more prone to disease and insect damage (Laschkewitsch & Smith, 2000). The ideal species easily reproduces itself thereby reducing input cost, e.g. bulbs, can be harvested multiple times per year, and has a unique feature which makes it attractive to buyers.



*Diversity and choice.*

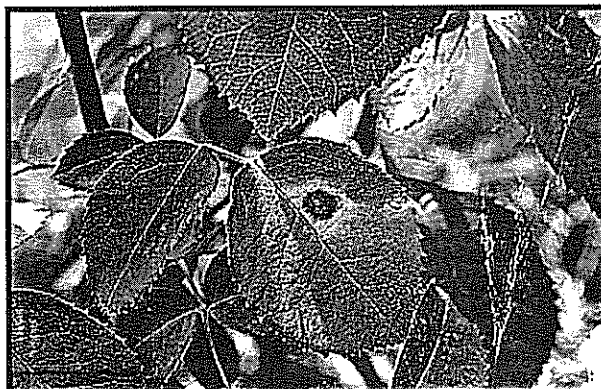
### 3.3. Labour

Commercial flower growing is labour intensive (Hatibu et al, 2000). Most of the cost of such a project is associated with harvesting (Laschkewitsch & Smith, 2000). At the same time the work is technically challenging (New South Wales Department of Agriculture, 2003). This implies that training will have to be given to local labourers

since they have no experience working with flowers destined for the export market. The key is to train workers to ignore sub-standard flowers and only pick the best for export purposes (Laschkewitsch & Smith, 2000). The remainder of the flowers can be sold in the local market. Therefore, any start-up planning has to include training costs. One also has to plan for the possibility of having to call in consultants to assist with technical problems.

### 3.4. Diseases and Pests

If possible, cultivators should attempt to farm with the minimum amount of pesticides. This becomes more likely if proper research is done before the start of a project. Not only are the pesticides expensive, they can be environmentally damaging as well as cause physical harm to the plants if incorrectly applied. The NBRI should be able to supply information on general plant diseases (viruses, bacteria, fungi and parasites) in Namibia, as well as indicate if certain types are more prevalent in certain parts of the country and under which conditions. The same holds for insect pests. Any spray program should strictly adhere to the directions supplied by the manufacturer, which includes implementing the necessary safety precautions specified. In general, applying spray to the plants rather than powder has been found to be more effective. Roses are prone to red spider mite infection in Namibia. Currently, there is no laboratory in Namibia that can provide analysis of pests or diseases. Samples are sent to South Africa. Most pesticides are also imported from there. This could imply a sizeable delay between the time a problem arises and when a response becomes possible. In turn, this could result in the loss of export quality.



*Blackspot (Diplocarpon rosae) fungus.*

### 3.5. Investment and Working Capital

Adequate investment and working capital is required to support the venture until it can generate income. This may be as long as 18 months (see Section 5 below). As such, it may be necessary to implement a parallel project which can serve to generate income in the mean time. One such alternative is the cultivation of vegetables. The cost of the project for the cultivator(s) is directly related to the production model and plant species used. Farming with cut flowers may be prohibitively expensive for the individual, but may be feasible as a community or joint venture. Some plant species may not require greenhouses or shade netting and could be grown in the open. Outsourcing is a potential production model to consider. A buyer contracts farmers to produce a certain quota of flowers per week, month or year while providing packing and cooling facilities, transport, marketing, etc. An alternative may be a joint venture with a European or American buyer. Here the Ministry of Foreign Affairs (MFA) and/or Ministry of Trade

and Industry (MTI) could potentially be of assistance in identifying investors. Irrespective of the production model and plant species chosen, every project will require certain basic inputs. Those inputs are listed in Tables 3 and 4.

**Table 3: Infrastructure and Equipment**

- Buildings e.g. greenhouses, shade netting, packing and cooling space, offices, secure chemical and fertilizer storage;
- Dams, boreholes and irrigation;
- Electricity e.g. power generator;
- Equipment, e.g. shovels, shears, gloves, safety masks, etc.;
- At least one vehicle e.g. a delivery van, truck or *bakkie*.

**Table 4: Production Costs**

- Fertilisers, pesticides, labour cost, and fuel;
- Post harvest costs (packaging, freight services, clearance charges);
- Maintenance (roads, fences, buildings, etc.);
- Business/office expenses e.g. rates and taxes, insurance, electricity, water, fax, phone, photocopying, internet access, printing, fees (loan repayments, bank fees, industry association memberships);
- Conferences, consultancy fees; and
- Living expenses.

Source: New South Wales Department of Agriculture, 2003.

#### 4. Tips

When preparing seed beds it is recommended that raised beds be used. This prevents water logging and raises the plants thereby making it easier to harvest the flowers. If water retention is an issue, gravel, shredded leaves, or straw can be strewn between the flower beds to reduce evaporation. This is called *mulching*. Drip irrigation is more economical than any other form of watering except for hydroponics. Preventing water contact with the rest of plant reduces the risk of fungal infections. Liquid fertilizer can also be administered through the irrigation system. It is recommended that harvesting be done in the early morning when the water content of the flowers is at its highest. The stems of the flowers should be 46 centimetres or longer (Laschkewitsch & Smith, 2000). The Kansas State University Agricultural Experiment Station and Cooperative Extension Service (1995) produced a document called *Commercial Speciality Cut Flower Production Harvest Systems: The Collection of Activities for Gathering and Handling Field-grown Speciality Cut Flowers*. It provides a comprehensive overview of the process required to arrive at the point of sale.

Insect pest control with the minimum use of chemicals requires a sound understanding of the life cycles of insects. The cycles are closely linked to seasonal and/or weather changes. Some insect species migrate and knowing when and where they pass through an area allows for a pro-active response. An excellent and inexpensive way of controlling insect populations is encouraging bat colonies by erecting bat boxes/houses (Bat Conservation Trust, 2004). Research from the United States has shown that species such as the little brown bat can catch up to a thousand mosquito-sized insects an hour (Gompper et al, 2003). In addition, bat droppings make an excellent fertilizer since it is rich in nitrates.<sup>1</sup> Farmers in SA are reporting a decrease in the use of pesticides following the promotion of bat colonies. For more information contact the Directorate Research and Extension of the MAWRD.

## **5. Return on Investment**

Return on investment is directly related to the scope of the project undertaken. Fixed capital investment, the species of flowers cultivated, soil quality, size of the area under cultivation, water requirements, and the regularity of feeding the plants are all determining factors of income return. Placing 10,000 m<sup>2</sup> under irrigation under a shade netting structure, buying cold storage containers, building a packing facility and offices, fencing the area, installing a standby generator, and both other equipment such as a pesticide machine will cost in the region of N\$ 1,5 million. Shade netting allows for only one growing season per year while a glass house allows for two. Second hand glass houses can be imported from the Netherlands for nearly the equivalent of setting up a same size plastic covered tunnel with the components imported from South Africa. Assuming that 150,000 flowers are harvested during a year at a gross return of N\$ 3 per flower in the European market, return on investment will range between six to eight years. For an indication of worldwide flower prices visit the *OzFlorEx* website included in the section *Useful Websites*.

## **6. Target Markets**

The most critical aspect of farming with flowers is finding a market. Main domestic outlets include wholesale and retail florists, roadside stands, grocery stores, craft fairs, restaurants, cinemas, corporations, diplomatic functions, convention centres hotels/motels, and funeral homes. When selling to businesses one should seek to add value to the product, e.g. by arranging the flowers in bouquets. Though there is demand for fresh-cut flowers in Namibia, there is little chance that a commercial flower grower will sell high quality produce at international prices on the local market. However, flowers are in demand the world over. There are markets for fresh flowers,

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<sup>1</sup> A note of caution should be added. Direct contact with bat droppings is dangerous. It can contain a variety of viruses and funguses harmful to humans. At a minimum protective gear should be worn over the hands, eyes, nose and mouth. Once worked into the soil it becomes harmless. As such, boxes/houses should be erected away from human habitation and activity.

bouquets and dried flowers. High quality flowers will sell almost anywhere. So will unique or rare specimens. *Bloominess*, a European flower exporter on average sells 21,000 bouquets per week in Germany and Norway combined. This doubles when Valentine's Day approaches. Volume also picks up on Mother's Day, Christmas, Easter, and national days (Thomasson, 2004). The largest flower auction in the world is located in Aalsmeer near Amsterdam. The value of the cut flowers, house and garden plants that pass through Aalsmeer per year is valued at around Euro 1,5 billion (Aalsmeer Flower Auction, 2004). On average, 19 million flowers and 2 million plants are sold per day in 12,000 varieties. The trading floor of Aalsmeer is pictured on the cover page of this document.

**Table 5: Flower Auction Houses in the Netherlands**

Name of auction	Name of the web-site	Explanation
Flower auction VBA, Aalsmeer	<a href="http://vba.nl">vba.nl</a>	Aalsmeer
FloraHolland Naaldwijk	<a href="http://floraholland.nl">floraholland.nl</a>	Location Naaldwijk
FloraHolland Rijnsburg	<a href="http://floraholland.nl">floraholland.nl</a>	Location Rijnsburg
FloraHolland Bleiswijk	<a href="http://floraholland.nl">floraholland.nl</a>	Location Bleiswijk
FloraHolland Eelde	<a href="http://floraholland.nl">floraholland.nl</a>	Location Eelde
Flower auction VON Bommel	<a href="http://von.nl">von.nl</a>	Bommel
Flower auction Vleuten	<a href="http://bv.nl">bv.nl</a>	Vleuten
Flower auction Grubbenvorst	<a href="http://floraholland.nl">floraholland.nl</a>	Grubbenvorst
Teleflower auction	<a href="http://tfa.nl">tfa.nl</a>	Import auction, Holland
Boskoop auction	<a href="http://boskoopseveiling.nl">boskoopseveiling.nl</a>	Whole sale in trees and plants, also plant of the month
Clock news VBA	<a href="http://clocknews.vba.com">clocknews.vba.com</a>	Auction news, photo's and information

Source: Dutch Flower Link (2004).

The critical component of selling overseas is finding buyers who can buy bulk, or gaining access to distribution networks. The other concern is keeping transport cost low. In this regard it makes sense to appoint an export agent. An export agent can handle every aspect of the export process beyond the production phase (growing and packaging) of the flowers. This includes organising transport including preferential rates, off-farm refrigeration and cooling, loading and unloading, transport insurance, paperwork, etc. Other than that, the agent also identifies new markets, sets up distribution networks in target markets, and ensures effective marketing of the product. Depending on the arrangement reached, the agent may carry all off-farm expenses deducting the cost once the produce is sold. Entering into a profit-sharing arrangement with an agent is not uncommon. Find an agent that speaks the language spoken in the target market, or employs someone that does. An alternative that is slowly gaining in popularity is selling via the internet. However, contrary to popular belief regarding the potential for internet sales, this cannot become the primary source of income for a flower producer – it can only augment sales. In addition, any serious flower producer should have a website to promote his/her business whether or not the aim is to sell via the internet. For examples of websites dedicated to internet sales see the section *Useful Websites*.

## 7. Market Norms and Expectations

Only top-quality flowers are traded internationally because of the increasing quality-consciousness of customers. Competition is such that anything less than top-quality flowers should be sold to less-demanding domestic customers, or channelled into the dry flower market. Flowers should be undamaged and pest and disease free. Visual appeal is critical since other quality measures such as determining whether flowers have been properly handled once cut is more difficult to see, which could determine vase life and openness of the bud. A good reputation opens doors. This is the reason why certain growers are consistently able to fetch higher prices than the norm.

## 8. Post-Harvest Handling

Fresh-cut flowers are highly perishable and must be handled and stored at low temperatures with between 3°C to 10°C being the norm depending on the species in question. Relative humidity of 90 to 95 percent should also be maintained. A *cold chain* has to be maintained all the way from the producer to the retailer. Cold storage containers for onsite cold storage and/or cold transport can be bought in the Netherlands for around N\$ 60,000 per container. The combination of temperature and humidity lowers the respiration and transpiration of the flowers, slows fungal growth as well as the production of *ethylene*. Ethylene is a plant hormone that speeds up the aging process of plants. Fruits, vegetables, exhaust fumes and cigarette/cigar smoke are major sources of it. Snapdragons, carnations and lilies are very sensitive to it. Leaves will start to yellow and petals drop off in large quantities. Any fruit and vegetables should be kept out of flower cold storage, old and decaying flowers removed, and all surfaces scrubbed with 10 percent bleach solution at least once a week. Air filters can be installed in the containers to filter out the ethylene. The bleach treatment also prevents bacteria and fungus from growing (Laschkewitsch & Smith, 2000).

Whenever possible, the flowers are shipped while the buds are still closed. Flowers leaving Namibia will have to be *dry packed*, i.e. transported out of water. This reduces weight but puts more stress on the flowers. Ice chips could be placed inside the boxes to keep the internal temperature down, but if the boxes are thick enough to prevent heat transfer and cooled before shipping this may not be needed. Before packing, the flowers should be fully hydrated and "pulsed". Pulsing involves placing the flowers in a bucket of water containing a floral preservative solution in order to extend vase life. The preservative contains nutrients, lowers pH allowing more water absorption, and reduces bacterial and fungal activity. During packing keeping petal damage to a minimum is critical. Wrapping the bulbs in protective covering is common practice.

## 9. Transport Costs and Considerations

Shipping fresh-cut flowers by sea defeats the purpose of the exercise. If destined for overseas markets air freight is the only option. There is a simple rule of thumb: the fresher the better. Exports will leave from Hosea Kutako International. Air freight rates are either linked to volume or weight, whichever brings in the most revenue for the airline. The same holds for road transport. Again, as a general rule of thumb: the larger the volume or greater the weight, the lower the rate. Flights to various destinations in Southern Africa also leave from Eros airport. Transport by road using cooled trucks may be an option within Namibia or to South Africa. An indication of domestic and international airfreight rates are provided in Tables 6 and 7. The importance of retaining an airway bill is discussed in Table 8. Road transport rates are provided in Table 9.

**Table 6: Air Namibia Domestic Cargo Rates February 2004**

From ... to Eros	N\$/kg (normal rate) 2kg + container	Minimum charges N\$
Ondangwa	18	250
Walvis Bay	18	250
Lüderitz	18	250
Oranjemund	18	250
Swakopmund	18	250
Rosh Pina	18	250
M'Pacha	18	250

Source: Pangwa, 2004.

**Table 7: Air Namibia International Cargo Rates January 2004**

Windhoek (Hosea Kutako) to:	N\$/kg (shipment 500kg+)
Cape Town	13,37
Johannesburg	14,37
London Heathrow	23,59
Madrid	22,06
Luxembourg	22,06
Frankfurt	19,24
Paris	24,74
Amsterdam	22,06
Hong Kong	20,29
Singapore	29,13
Taipei	27,92
Houston	51,60
Miami	46,53
Los Angeles (LAX)	53,49
New York City	37,83
<b>Additional surcharges</b>	
Security surcharge	1,30
Fuel surcharge	1,20

Source: Kaveru, 2004.

## 10. Quality Standards

The United Nations Economic Commission for Europe (UNECE) has determined agricultural standards for cut flowers. It has produced a number of standards for cut flower in general as well as for cut foliage, roses, carnations, chrysanthemums, gladioli

and strelitzias. Visit the UNECE's website for more information. The South African quality control legislation pertaining to fresh cut flowers can be found on the Department of Agriculture's website. The document is called the *Agricultural Product Standards Act, 1990 (Act No. 119 of 1990) Standards and Requirements Regarding Control of the Export of Fresh Cut Flowers and Fresh Ornamental Foliage*.

Though it is not formally required, it is recommended that exporters to Europe and the United States be able to prove that their produce conforms to the EuroGAP (Good Agricultural Practices) safety and Hazard Analysis Critical Control Point (HACCP) quality control standards. EuroGAP as a standard addresses consumers' concerns regarding food safety, as well as animal, environmental and employee protection. Strong emphasis is placed on the monitored use of pesticides as well as the traceability of produce back to the point of origin. HACCP places emphasis on hygiene. This includes aspects of physically handling and cleaning the produce, specifying a standard of packaging, ensuring hygienic transport conditions, etc.

Currently, Namibia has no EuroGAP Certification Body. However, should exports pass via South Africa the Perishable Products Export Control Board (PPECB) can be requested to do an inspection of the produce to verify that it conforms to the EuroGAP and HACCP standards. The PPECB is a EuroGAP Certification Body as well as enjoys ISO 9001 (component of HACCP) certification status (Perishable Products Export Control Board, 2004). Depending on the size of the consignment, this takes a few hours. Should a chemical analysis be requested, results will be returned within a maximum of three days depending on priority. It should be emphasised that the standards mentioned are safety and hygiene standards, not quality control standards. Ultimately, the easiest way to reach export standard is to comply with the requirements set by an export agent.

**Table 8: Functions of an Airway Bill**

• Serves as documentary evidence of a Contract of Carriage
• A copy is given to the shipper as Proof of Receipt of Goods
• Serves as an Invoice
• Serves as a Certificate of Insurance
• Serves as a Customs Declaration (presented for customs clearance)
• Serves as a Waybill (where and how the goods are to be delivered)
• Contains an Airway Bill Number (eleven digits of which 1 <sup>st</sup> three are country code)

Source: Ministry of Trade and Industry Directorate of International Trade, 2003.

Adherence to the EuroGAP or HACCP standards aside, every government still applies particular sanitary and phytosanitary (SPS) measures pertaining to foods safety and animal and plant health of imports. In regards with exports this is the most critical concern. Irrespective of the export destination of produce, or where it leaves Namibia, it needs to be accompanied by a phytosanitary certificate (PC) issued in accordance with the stipulations of the import permit issued by the receiving country. The certificate is issued in Namibia by the MAWRD, Directorate Engineering Services subdivision Law Enforcement. This serves as both a certificate of origin and an inspection certificate. One needs to supply the scientific names of the plants exported. Most countries require that PC be dated within 14 days of shipment. If flowers are harvested from



plants which as protected under the Convention on International Trade in Endangered Species (CITES), the nursery must be CITES registered and export under the permit granted to it. For more information contact the Ministry of Environment and Tourism (MET).

This process sounds more simplistic than it is. For exports to pass smoothly into the importing country, it must be convinced that the standard of inspection locally meets or exceeds its own inspection standards. If this is not the case, one can expect a refusal of an import permit, or an extended period of negotiation before a permit is issued, or delays in transit. Therefore, it should be stressed again that absolute clarity must be had on SPS requirements of a country before shipping goods there. If the MAWRD cannot provide further information, contact the MTI or a local embassy or consulate, or alternatively the MFA which may have a mission in the intended country of export.

## 11. Packaging and Labelling Requirements and Costs

Standard carton packaging in the Zimbabwean and South African industry is called the *Barton 2* supplied by *Mondipak Gauteng Office*. Price decreases with volume bought. Ordering 10,000 units will result in price of around R10,90 per box. Cartons can also be made according to specification. Under the EuroGAP and HACCP schemes every carton must contain a requisite set of information which allows it to be traced back to the producer. This information can be printed on the carton as is or in the form of a barcode, or attached with a label. On May 13, 2002, the Farm Security and Rural Investment Act (FSRIA) came into force in the United States. It stipulates that perishable agricultural commodities imported into the United States must contain labelling specifying country of origin. Enforcement is the responsibility of the US Department of Agriculture's (USDA) Agricultural Marketing Service (AMS). The guidelines for labelling specified within the *Food and Agricultural Import Regulations and Standards Report (FAIRS)* provide a comprehensive overview of what is demanded in the US market.

**Table 9: Road Transport Cost for 20' Reefer Container February 2003**

Route	Full container N\$	Groupage cargo 1 ton rate N\$/KG
Rundu to Walvis Bay	22,880	1,65
Katima Mulilo to Walvis Bay	29,040	2,20
Oshikango to Walvis Bay	23,650	2,20
Oshakati to Walvis Bay	21,780	-
Tsumeb to Walvis Bay	16,280	1,10
Okahandja to Walvis Bay	7,700	1,10
Windhoek to Walvis Bay	9,900	1,10
Rehoboth to Walvis Bay	11,550	1,32
Mariental to Lüderitz	30,800	1,65
Keetmanshoop to Lüderitz	33,000	1,65

Source: Ministry of Trade and Industry Directorate of International Trade, 2003.

## 12. Tariff Barriers

Tariffs are levies attached to imported products. Though this may raise government revenue collected from imports, ultimately the aim is to protect local producers. Tariffs set on cactus products will differ from country to country and from product to product. For queries regarding applicable import tariffs contact the MTI (2004). Namibia is party to a number of trade initiatives which serve to reduce the tariffs levied on goods imported into the US and EU.

- *The Generalized System of Preferences (GSP)*: This system came into effect some thirty years ago under the General Agreement on Tariffs and Trade (GATT), now the World Trade Organization (WTO). Under the Most Favoured Nation (MFN) principle GATT/WTO members had to extend the same tariff to all other members. The GSP was designed to bypass this rule allowing industrialized countries to extend special tariff rates to goods originating from developing countries. The US, EU and Japan all have their own GSP. If cactus pear is not included in the GSP of a country, it will still enjoy a reduced tariff under the MFN rule since Namibia is a member of the WTO. An export to the EU has to be accompanied by a document called the *Certificate of Origin Form A*. This document can be obtained from the Ministry of Finance (MoF) Directorate Customs & Excise. It has also has to be accompanied by an invoice containing the declaration specified in Table 10. The US does not require GSP Form A. A declaration concerning the origin of the goods such as below is sufficient. For more information on the GSP see the section *Useful Websites*.

**Table 10: Invoice Declaration for EU**

<i>English version</i>
<p>The exporter of the products covered by this document (customs authorization No . . . <sup>(1)</sup>) declares that, except where otherwise clearly indicated, these products are of . . . preferential origin <sup>(2)</sup> according to rules of origin of the Generalized System of Preferences of the European Community.</p>
<p>.....</p> <p>(place and date) <sup>(3)</sup></p> <p>.....</p>
<p>(Signature of the exporter; in addition the name of the person signing the declaration has to be indicated in clear script) <sup>(4)</sup></p>

Source: European Commission Expanding Exports Helpdesk, 2004.

- *African Growth and Opportunity Act (AGOA)*: The AGOA was signed into force during 2000 by the ex-US President Bill Clinton. According to the US Department of Commerce (2004): "AGOA authorizes the President to provide duty-free treatment under GSP for any article, after the U.S. Trade Representative (USTR) and the U.S. International Trade Commission (USITC) have determined that the article is not import sensitive when imported from African countries". The AGOA and the GSP overlap. Items not eligible for

exemption of import duty under the AGOA are still exempt from it if eligible under the GSP, or if the statutory import duty is zero.

- *The Cotonou Agreement.* Under this agreement with the EU Namibian produce can enter the EU duty-free or at a reduced rate if certain criteria are met. The product must originate in Namibia as well as the bulk of the value added locally. In addition, the goods must be transported directly from Namibia to the EU. Goods must be accompanied by a document called the *Movement Certificate (EUR I)* as well as the invoice declaration specified in Table 10. The Movement Certificate is issued by MoF Directorate Customs & Excise. The Cotonou Agreement will be in force until the year 2008.

Every item exported has a particular customs code. In order to standardize customs codes worldwide a system called the *Harmonized Tariff Schedule (HTS)* has been adopted. Each country links its tariff schemes to the HTS. For information on import tariffs on cactus products for the US one should consult the *US International Trade Commission Tariff (USITC) Database* (United States International Trade Commission, 2004). The equivalent of the EU is the *Integrated Tariff of the European Communities (TARIC) Database* (European Commission, 2004). Tables 10 and 11 contain the tariff rates for cut-flowers according to the trade scheme in question. Potential exporters should contact the American Embassy or Delegation of the European Commission in Windhoek, or the MTI, for more information on which tariff rate is applicable before exporting.

**Table 11: EU Import Tariffs on Cut Flowers Depending on Trade Scheme**

Trade Scheme	Duty rate					
	Roses	Carnations	Orchids	Gladioli	Chrysanthemums	Other
Third country duty (MFN)	8,5%	8,5%	8,5%	8,5%	8,5%	8,5%
LOMA (Cotonou)	0%	0%	0%	0%	0%	0%
SPGL (GSP)	5%	5%	5%	5%	5%	5%
South Africa	4,9%	-	6,3%	6,3%	4,9%	-

TARIC code: Roses = 06031010; Carnations = 06031020; Orchids = 06031030; Gladioli = 06031040; Chrysanthemums = 06031050; Other = 06031080.

**Table 12: US Import Tariffs on Cut Flowers Depending on Trade Scheme**

Trade Scheme	Duty rate					
	Roses	Carnations	Orchids	Gladioli	Chrysanthemums	*Bouquets
MFN	6,8%	6,4%	6,4%	6,4%	6,4%	6,4%
GSP	Not eligible	Duty free	Duty free	Duty free	Duty free	Duty free
AGOA	Duty free	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible

USITC code: Roses = 06031060; Carnations = 06031070; Orchids = 06031070; Chrysanthemums = 06031070; \*Cut flowers and flower buds suitable for bouquets or ornamental purposes, fresh cut = 06031080.

### 13. Constraints and Opportunities

There are a number of constraints to farming with cut flowers in Namibia. Those include:

- **Few producers:** Farming with cut flowers in Namibia is a pioneering enterprise. There is only a tiny knowledge pool to draw from. Currently there are only two producers and a third is still in the experimental phase of production.
- **Lack of a growers' association:** This limited amount of growers does not justify the existence of a growers' association. A growers' association offers the advantage that it can negotiate on behalf of producers for more favourable transport rates, keep them abreast of the latest developments in the industry, forge cooperative agreements abroad, lobby government for more favourable policy, etc.
- **High input costs:** The bulk of what is needed for such a project needs to be imported. In most instances buying locally is not viable since imported goods are sold at excessive rates compared to similar goods in SA or overseas with the excuse that transport costs is high. In this instance, cut out local re-sellers where possible and buy directly from suppliers in South Africa or overseas. Examples include game fencing and irrigation systems. Buying second hand glass greenhouses from Europe makes more sense than buying plastic covered tunnels from SA since the cost is nearly identical.
- **A single international airport:** Proximity to Hosea Kutako reduces transport cost. Potential producers in the far north of the country may have to consider the proximity of smaller airports, or those in the far south transport by road to SA markets such as Cape Town.
- **Access to water:** Farming with flowers requires access to high volumes of water. Since there is very little surface water in Namibia, boreholes become a must. These can cost between N\$ 70,000 to 80,000, with the risk of not finding water but still having to pay for the work done.
- **Lack of a cold storage network:** Namibia lacks a well developed, nationally distributed cold storage network. Potential commercial producers may have to build on-site cold storage facilities. They may also have to purchase cold storage vehicles if the local transport companies cannot provide cold storage transport.
- **Lack of skilled managers and flower pickers:** experienced and reliable managers trained in horticulture are hard to find in Namibia. Picking flowers is as much skill as an art. Inexperienced pickers can damage both the flower and the plant. Time will have to be invested in teaching workers this skill.

- **Lack of experienced extension officers:** The MAWRD Directorate Research and Extension is currently suffering from a critical shortage of experienced extension personnel. This implies a delayed response time from the side of the Ministry.

Despite the constraints mentioned there are a number of reasons to consider investing in a cut flower business in Namibia:

- **Profitable given access to capital:** Existing producers have shown that owning a cut flower business in Namibia is profitable given access to capital. Remember, that the worldwide flower industry is a multi-billion US\$ industry. To this should be added a word of caution. Farming with flowers is not a get rich quick scheme. It requires the same level of dedication and know-how to farm successfully with as say with grapes.
- **Lots of sunshine:** Due to virtually year-round sunshine Namibian producers enjoy a major advantage over European ones. Artificial lighting is expensive and not needed in Namibia.
- **A short rainy season:** For some three quarters of the year the volume of water received by the plants is easily manageable since rainfall is limited to the summer season.
- **Cheap labour:** The minimum wage for farm workers in Namibia is currently set at N\$ 429. On 03 August 2004 at an exchange rate of N\$ 6,33 to the US\$, this amounted to roughly US\$ 67,77 per month. On the same day the exchange rate to the Euro was N\$ 7,59 resulting in a monthly wage of Euro 56,52. Conservatively estimated, Namibia currently has an unemployment rate around 30%. One would expect that farm workers working on a profitable flower farm would enjoy wages in excess of the minimum if a profit-sharing arrangement is reached, not considering humanitarian arguments. Given what local wages amount to in Dollar and Euro terms it would be hard to imagine that even the destitute in the US and Western Europe could earn this little per month.

#### 14. Getting Started

It is advised that anyone that seeks further explore the possibilities offered by the cut flower industry first contact the Directorate Extension and Research of the MAWRD. Further information is provided in the section *Contact Information*.

#### 15. Please Note

All prices cited in this document are not fixed and will change over time. No party mentioned in this document is legally bound to deliver to the reader of this document preferential treatment in this regard. The responsibility rests with the reader to verify

information included in this document before acting upon it, or to obtain additional information where needed.

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- National Botanical Research Institute  
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E-mail: [carrs@iway.na](mailto:carrs@iway.na)
- SA Flower Industry Council  
Tel: (0027) (11) 692 4237
- Perishable Products Export Control Board (PPECB)  
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- Dave McCawley  
Container Security Initiative  
United States Embassy, Windhoek  
Tel: (061) 221 601
- European Union  
Delegation of the European Commission in Namibia  
Ask for: Trade Advisor  
Tel: (061) 202 6000

## 17. Useful Websites

Codex Alimentarius  
<http://www.codexalimentarius.net/>

Flowers online  
<http://www.flowersdirectuk.co.uk/>

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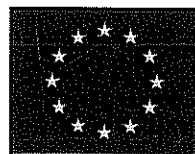
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## 20. Picture on Cover

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