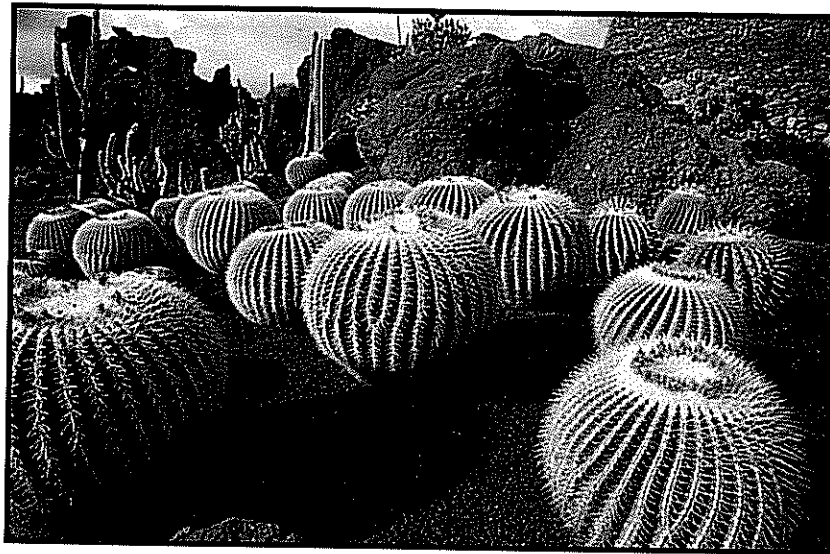


Opportunities for Namibian Farmers:

Succulents



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Although this report was prepared under EDF funding, the EC bears no responsibility for, nor is in any way committed to, the views and recommendations expressed herein.

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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 an opportunity is farming with succulents. A succulent is a plant of which one (or more) of its organs – leaves, stem or roots – has developed the capability to store water. This allows them to survive in harsh, dry environments. Examples include cacti, mesembs (*vygies*), and aloes. One of the more well known aloes associated with Namibia is the *kokerboom* or quiver tree (*Aloe dichotoma*).

Succulents are interesting for a variety of reasons. The fact that they store water makes them easier to transport over long distances. Other than used as ornaments in homes and offices, collectors want them for their unique shapes and/or rarity. A new trend is developing in landscaping called *xeriscaping*. In arid environments gardens are planted only or mostly using succulents. However, it is in the area of health care where commercially there is the most promise. In Namibia *Hoodia* species have attracted particular interest. The plants are known to have appetite suppressant properties and as such could be used as a *natural* treatment for obesity. It is important to emphasise “natural” since there is increasing resistance to constructed medicines the world over.

List of Abbreviations

SA	South Africa
EU	European Union
IIED	International Institute for Environment and Development
CITES	Convention on International Trade in Endangered Species
MET	Ministry of Environment and Tourism
NASSP	National Agricultural Support Services Programme
MAWRD	Ministry of Agriculture, Water and Rural Development
NBRI	National Botanical Research Institute
NGO	Non-Governmental Organisation
CRIAA	Centre for Research Information Africa Action
NDT	National Development Trust
UNDP	United Nations Development Programme
UV	Ultra Violet
GP	General Purpose
MTI	Ministry of Trade and Industry
USDHS	US Department of Homeland Security
CSI	Container Security Initiative
SST	Smart and Secure Tradelanes
SPS	Sanitary and Phytosanitary (SPS)
PC	Phytosanitary Certificate
MFA	Ministry of Foreign Affairs
GSP	Generalized System of Preferences
GATT	General Agreement on Tariffs and Trade
WTO	World Trade Organization
MFN	Most Favoured Nation

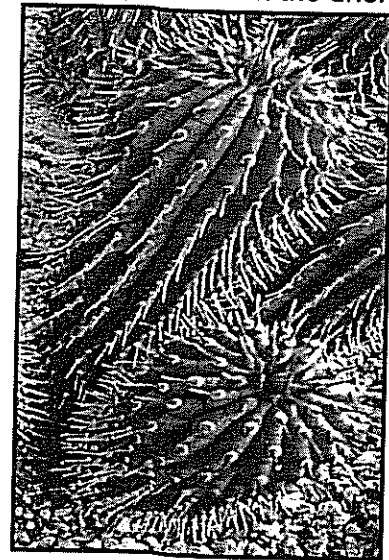
MoF	Ministry of Finance
AGOA	African Growth and Opportunity Act
USTR	US Trade Representative
HTS	Harmonized Tariff Schedule
USITC	US International Trade Commission Tariff
TARIC	Integrated Tariff of the European Communities

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 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, or the 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 the opportunities offered by niche and novel products. Farming with succulents is one such an opportunity.

2. Why Farm with Succulents?

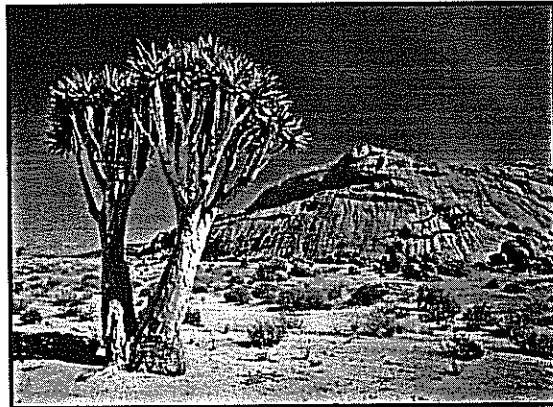
A succulent is a plant of which one (or more) of its organs – leaves, stem or roots – has developed the capability to store water (Succulent Society of South Africa, 2004). This allows them to survive in harsh, dry environments. Examples include cacti, mesembs (*vygies*), and aloes. One of the more well known aloes associated with Namibia is the *kokerboom* or quiver tree (*Aloe dichotoma*). Succulents are interesting for a variety of reasons. The fact that they store water makes them easier to transport over long distances. Other than used as ornaments in homes and offices, collectors (Abramo, 1987) want them for their unique shapes and/or rarity. A new trend is developing in landscaping called *xeriscaping* (Vertefeuille, 2003). In arid environments gardens are planted only or mostly using succulents. This trend is prevalent in the drier parts of both South Africa (SA) and the United States (US), as well as among both home-owners and municipalities. However, it is in the area of health care where commercially there is the most promise. What traditional healers living in the various arid places of the world have in common is their awareness that certain local succulents have particular healing properties. Pharmaceutical companies are showing increasing interest in this knowledge. In Namibia *Hoodia* species have attracted particular interest. The plants are known to have appetite suppressant properties and as such could be used as a *natural* treatment for obesity. It is important to emphasise “natural” since there is increasing resistance to constructed medicines the world over.



Hoodia ruschii.

3. Worldwide trade

The scope of worldwide trade in succulents is not known. Official figures cannot reflect the extent of illegal trade. In addition, they have severe shortcomings. According to the International Institute for Environment and Development (IIED) and TRAFFIC (2002): "Any effort to describe the international wildlife trade must unfortunately begin with the recognition that this cannot be done with accuracy. The trade is very poorly documented in terms of the species or products involved, trade volumes and trade values. The international trade in timber and fisheries products is relatively better documented than the trade in most other wildlife commodities, a reflection of the greater monetary value of this trade". Statistics are compiled from customs data and reports by Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Customs data focuses on the level of processing of the product and trade volumes, and only rarely on the species traded and number involved. The problem with relying on CITES reports is that the number of species listed in the CITES Indexes is small compared to the diversity of species traded. CITES data also tends to be more accurate for the export of live animals than for plants. Some 1,000 species of plants (including succulents) with medicinal qualities are traded in the East Asia alone with some 700 species imported for use within Europe. The value of [legal] international trade in medicinal and aromatic plants during 1996 amounted to US\$ 1,3 billion with tonnage exceeding 440,000.



CITES listed: the quiver tree.

4. Target Markets

The capacity of the local market to absorb a high volume of succulents is limited. None the less, local nurseries are interested in extending the range of succulents they have on offer. For an indication of the prices that certain succulents fetch in the Namibian market, see Table 1 on the next page. Namibia has already lost out when it comes to profiting from its biodiversity. Most common local species of succulents can be bought at nurseries or in shops in the United States and Europe. Plants and seedlings were taken out of the country before bio-patenting became an issue. Despite the fact that a large number of local succulents are freely available overseas, there are a number of species that are highly sought after in South Africa, the US, Japan and Western Europe. Those are listed in Table 2. The market for small plants in Western Europe is saturated. Large, mature plants are highly sought after. European climatic conditions do not allow for the growing of succulents to maturity, nor do expensive artificial methods yields the same results as growing the plants in their natural environment. Most succulents do not respond well to fertilizers and may burst or rot if overfed.

The approved drug market based on the isolation of unique medicinal properties of certain succulents is slowly expanding. Potentially, this could be the most lucrative market in years to come. In Namibia, *Hoodia* species currently holds the most promise. Another market that is already well established is the phyto-pharmaceutical market. It demands plant extracts for use in health care products. In 1999, 70 tons of *Aloe ellenbeckii* resin was exported from Kenya to China. South Africa exported more than 300,000 tons of *Aloe ferox* extract (IIED & TRAFFIC, 2002).

Table 1: Sales Prices of Succulent Species

Plant: Scientific Name	Origin	Sales Price N\$
<i>Agave attenuata</i>	Mexico	265
<i>Agave grande</i>	Mexico	250
<i>Agave victoria regina</i>	Mexico	245
<i>Aloe arborescens</i>	ZA	65
<i>Aloe aristata</i>	ZA	15
<i>Aloe barberae (bainesii)</i>	ZA	190
<i>Aloe ferox</i>	ZA	125
<i>Aloe marlothii</i>	ZA	180
<i>Aloe thraskii</i>	ZA	125
<i>Aloe vera</i>	East Africa	25
<i>Aloe zebrina</i>	Indigenous	25
<i>Beaucarnea recurvata</i>	ZA	625
<i>Euphorbia avosmontana</i>	Indigenous	55
<i>Euphorbia milii</i>	ZA	17
<i>Euphorbia volkmanniae</i>	Indigenous	98
<i>Pachypodium geayi</i>	ZA	32
<i>Pachypodium saundersii</i>	ZA	125

Source: Wilde Eend Nursery.

There is a thriving landscaping and nursery market in the south-western US in cacti and other succulents. Most species originate from the Chihuahuah Desert which stretches through Arizona, Texas, New Mexico and northern Mexico. Urban demand for succulents in the US is centred in Arizona, Nevada and southern California. During the period 1998 to June 2001 some 100,000 succulents with an estimated value of US\$ 3 million were harvested from the wild in Texas alone and illegally imported from Mexico into Texas. The fastest growing markets were Phoenix and Tucson in Arizona and Las Vegas, Nevada. Some plants did find their way to Colorado and Oklahoma. The supply was absorbed by municipalities and home owners, as well as collectors who are looking for rare or new species to science. The majority of the plants first found their way to nurseries and supermarkets. Europe and Japan remain top destinations for both legal and smuggled plants. In Western Europe demand is the highest in Great Britain, Germany and Sweden (Robbi, 2002).

5. Protecting Namibian Diversity

From an environmental perspective the worldwide demand for succulents is placing wild plant populations under increasing pressure. Therefore, the establishment of nurseries to reduce the reliance upon the harvesting of wild plants is becoming a priority with wildlife conservation agencies. According to the Succulent Society of South

Africa (2000) of the some ten thousand species of succulents found on the globe, some 46% is found in Southern Africa.

Table 2: Popular Species Worldwide

Family	Scientific Name	Common Name
Aizoaceae	<i>Cheiridopsis spp.</i>	
Aizoaceae	<i>Conophytum spp.</i>	
Aizoaceae	<i>Dinteranthus spp.</i>	
Aizoaceae	<i>Lapidaria margaretae</i>	Rock mesemb
Aizoaceae	<i>Lithops spp.</i>	Stone plants
Apocynaceae	<i>Adenium spp.</i>	Desert roses
Apocynaceae	<i>Pachypodium lealii</i>	Bottelboom
Apocynaceae	<i>Pachypodium namaquanum</i>	Halfmens
Asclepiadaceae	<i>Hoodia spp.</i>	Selonsroos
Asclepiadaceae	<i>Stapelia</i>	Aasblom
Crassulaceae	<i>Crasulla spp.</i>	Plakkies
Crassulaceae	<i>Tylecodon hallii</i>	
Crassulaceae	<i>Tylecodon paniculatus</i>	Botterboom
Crassulaceae	<i>Tylecodon pearsonii</i>	
Crassulaceae	<i>Tylecodon reticulatus</i>	
Crassulaceae	<i>Tylecodon singularis</i>	
Dioscoreaceae	<i>Dioscorea elephantipes</i>	Olifantsvoet/Elephant's foot
Liliaceae	<i>Aloe argenteicauda</i>	
Liliaceae	<i>Aloe asperifolia</i>	
Liliaceae	<i>Aloe corallina</i>	
Liliaceae	<i>Aloe claviflora</i>	
Liliaceae	<i>Aloe dewinteri</i>	
Liliaceae	<i>Aloe dichotoma</i>	Kokerboom
Liliaceae	<i>Aloe dinteri</i>	
Liliaceae	<i>Aloe ernacea</i>	Krimpvarkaalwyn
Liliaceae	<i>Aloe karasbergensis</i>	
Liliaceae	<i>Aloe meyerii</i>	
Liliaceae	<i>Aloe namibensis</i>	
Liliaceae	<i>Aloe ramosissima</i>	Nooienskokerboom
Liliaceae	<i>Aloe pearsonii</i>	
Liliaceae	<i>Aloe pillansii</i>	Basterkokerboom
Liliaceae	<i>Aloe sladenii</i>	
Liliaceae	<i>Aloe variegata</i>	
Passifloraceae	<i>Adenia spp.</i>	
Portulacaceae	<i>Portulacaria pygmaeum</i>	
Portulacaceae	<i>Ceraria namaquensis</i>	
Vitaceae	<i>Cyphostemma bainesii</i>	
Vitaceae	<i>Cyphostemma crameriana</i>	
Vitaceae	<i>Cyphostemma currorii</i>	
Vitaceae	<i>Cyphostemma juttae</i>	
Vitaceae	<i>Cyphostemma uter</i>	

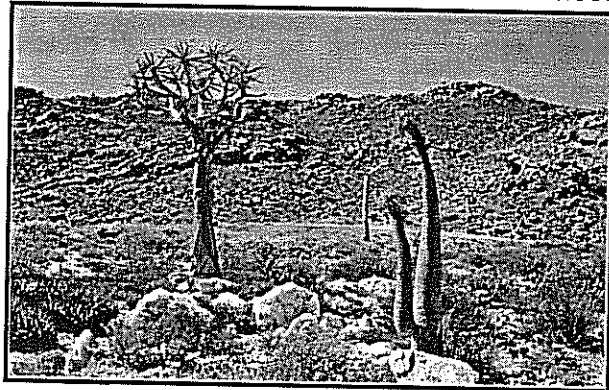
Sources: Retief, 2004; Van Jaarsveld, 2004.

In Namibia there are some 600 species of succulents belonging to some 35 plant families (Van Jaarsveld, 2004). Most of the species are found in the drier southern part of the country. Around 110 species found in Namibia are listed in Appendix II of the CITES (Convention on International Trade in Endangered Species, 2004a). Appendix II (Convention on International Trade in Endangered Species, 2004b) lists those plants that are not necessarily endangered at the moment but may become so if international

trade in them is not closely monitored. Only one local species is listed in Appendix I which is *Aloe pillansii* L. Guthrie. Appendix I lists species that are considered the most endangered among CITES-listed plants. Inter-national trade in these species are prohibited unless exceptional circumstance allows for it, for example scientific research or if proof can be provided of artificial cultivation.

Considering the fact that the demand for certain succulent species useful to the health care industry could rocket overnight, the Ministry of Environment and Tourism (MET), in cooperation with the National Agricultural Support Services Programme (NASSP), the Ministry of Agriculture, Water and Rural Development (MAWRD) Directorate: Research and Extension and the National Botanical Research Institute (NBRI) has launched a national succulent cultivation program. Non-governmental organisations (NGOs) such as the Centre for Research Information Africa Action (CRIAA), the National Development Trust (NDT), the United Nations Development Programme (UNDP), etc. are also involved. The aim of the program is to prevent uncontrolled, unsustainable harvesting of plants, while realising commercial benefits especially in poor communities. The project started in 2002. The trial phase of the project focuses on the collection of research information pertaining to certain species (*Hoodia*, *Aloe*, *Euphorbia*, & mesembs, and stapeloids) by the NBRI (Carr, 2003).

The second phase of the project will involve the establishment of satellite nurseries within conservancies located in arid regions of the country. Emphasis will be placed on the cultivation of *Hoodia*, rare and endangered indigenous species, certain common species, and those with ornamental value and/or commercial potential. Out-grower schemes will be encouraged among poor households within conservancies. Those interested will be provided with plant material and instructed on how to grow the plants. Slower growing plants will be sold for a minimal amount with the understanding that mature plants will be bought back later on. Conservancies will sell to tourists, collectors, commercial nurseries, landscaping companies, and buyers within the region buyers within the region (Carr, 2003).



Aloe pillansii (l) & *Pachypodium namaquanum* (r).

6. Return on Investment

The cultivation of succulents is a medium to long term project. By reducing the tempo at which they grow, succulents limit water loss. Most species will only reach a size where they become commercially viable to sell or harvest after three to five years. Some species may take up to five to ten years to reach the same stage of maturity (Carr, 2003). Therefore, in order to generate a consistent stream of income from a succulent nursery requires the cultivation of fast and medium growth species until slow

growth, more valuable species can mature. Contact the NBRI for more information in this regard. Setting up a nursery is relatively inexpensive. The costs of a nursery permit as issued by the MET amounts to N\$ 50. A nursery must be at least nine by five square metres in size. Shade netting differs according to the amount of ultra violet (UV) protection provided and UV transmission allowed. It can also be used as a wind barrier. Again, it would make sense to enquire at the NBRI regarding the degree of sunlight needed by succulent seedlings according to species. Component costs for erecting shade netting are listed in Table 3.

Table 3: Component Prices for Erecting Shade Netting

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

*: Prices Pupkewitz Megabuild March 2004.

7. Points of Entry

If a local export agent is appointed, produce destined for Europe and the United States will ship from Walvis Bay or be flown out from Hosea Kutako International. If a South African export agent is appointed, produce will ship from Cape Town or be flown out from Johannesburg International. Shipments via air to the East too will leave from there, with shipments via sea leaving from Durban. Air Namibia has no direct flights to destinations in the East so produce will have to be redirected through Johannesburg International.

8. Transport Costs and Considerations

Unless the plants are very large and robust, and a large volume has to be shipped, most shipments to overseas markets will leave by air. This means that shipments will either leave from Hosea Kutako International outside of Windhoek or from Eros Airport in Windhoek. Air Namibia operates smaller aircraft from Eros Airport to amongst others Johannesburg and Cape Town. Domestic cargo rates for Air Namibia valid during February 2004 are listed in Table 4. International cargo rates valid for January 2004 are listed in Table 5. The reasons for retaining an airway bill are listed in Table 6. If transported by road succulents will be transported in general purpose (GP) 20 foot or 40 foot containers. Cargo rates within Namibia for February 2003 are listed in Table 7. For a list of handling costs at Walvis Bay, see Table 8. For a guideline to ocean freight charges and shipping time see Table 9. Shipping time varies according to whether freight is shipped directly port-to-port (more expensive), or redirected from a specific port (cheaper but slower). The procedure for exporting goods can be found in Table 10.

Some exporters ship small consignments via airmail. These consignments should still be accompanied by information attached to the outside of the container stating the

content thereof and naming the permits shipped with it. It should be noted that shipping companies determine freight rates according to weight or volume depending on which yields the greatest revenue. For more information on transport cost see the publication *Guidelines on Export Transport Costs* as published by the Ministry of Trade and Industry (MTI). Those that wish to export without the assistance of an export agent should consult the content of the International Chamber of Commerce's *Incoterms 2000*. Incoterms are standard trade definitions used in international sales contracts. Procedures for exporting via sea are listed in Table.

Table 4: 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 5: 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
Additional surcharges	
Security surcharge	1,30
Fuel surcharge	1,20

Source: Kaveru, 2004.

Export requirements to the US have become more stringent in the wake of the terror attacks on US soil during 2001. The US Department of Homeland Security (USDHS) has implemented what it calls the Container Security Initiative (CSI). Durban is the only harbour in southern Africa which is a party to the CSI. What does it involve? Containers shipped via sea considered a security risk are screened before being loaded by US customs officials. Identifying the containers is achieved by implementing what is called the *24-hour rule*. Detailed manifest information has to be submitted at least 24 hours before loading. Where this information is too vague or submitted too late, the container is issued with a "Do Not Load" directive. It will not ship until all the

necessary criteria are met. Should a container marked as such ship to the US it will be denied permission to be unloaded at any port in the US.

Table 6: 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 st three are country code)

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

Containers can still be shipped from non-CSI ports *under normal circumstances*, i.e. when there is no palpable threat of terrorist activity. They will go through the same inspection on the US side, but according to US Customs Service Commissioner, Robert Bonner (Brew, 2003): "...the processing by the US of shipments from non-CSI ports may be *less efficient* [emphasis added] than the processing of shipments from CSI-affiliated countries". Already, before September 11th 2001 the EU has lodged complaints in this regard (European Commission, 2001). Though this will be officially denied, this possibility has effectively erected a barrier to trade in fresh produce with the US if shipped via sea. These means that goods shipped from Walvis Bay could be seriously delayed in transit, or even rot in a US port. The alternative of shipping the goods to Durban adds the cost of thousands of extra kilometres of transport, as well as extends the time in transit of the produce. Currently, considering the potential for delay in transit, the safer option is to fly the produce to the US. In future, Walvis Bay may join the Smart and Secure Tradelanes (SST) Scheme currently in its test phase.

Table 7: 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.

9. Safety Standards

Every government applies particular sanitary and phytosanitary (SPS) measures pertaining to 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 seeds or plants are harvested which as protected under the CITES, the nursery must be CITES registered and export under the permit granted to it. For more information contact the MET.

Table 8: Handling Costs at Walvis Bay Port February 2003

	Full container N\$	Groupage cargo rate N\$/ton
Transport charges to Walvis Bay port (transporter)	303	
Terminal handling fee (Namport)	677	
Equipment handover fee (Shipping company)	825	
Base tariff fee (Namport)	2,031	
Customs documentation fee per Bill of Landing	539	539
Agency fee - first container/cbm	605	275 per cbm
- thereafter	330	110 per cbm
Communication fee per Bill of Landing	149	149
Courier documents per set	385	385

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

All of the above 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. Some countries may impose quarantine on the plants before letting them enter. If the MAWRD cannot provide further information, contact the MTI or a local embassy or consulate, or alternatively the Ministry of Foreign Affairs (MFA) which may have a mission in the intended country of export which could obtain further information.

Table 9: Ocean Freight Charges 20' Reefer Container February 2003

Destination	Shipping time (days)	US\$ est.
Luanda	5	3,850
Cape Town	4	N\$ 5,500
Dublin	30	4,180
Hamburg	25	3,850
Frankfurt	35	3,960
Rotterdam	26	3,960
London	35	4,400
Madrid	35	3,850
Paris	35	4,400
Singapore	25	3,520
New York	40	4,620
Philadelphia	45	4,730
Los Angeles	45	4,950
Jakarta	35	3,520
Lagos	25	3,960
Baltimore	45	4,620

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

10. Packaging and Labelling Requirements and Costs

Currently there is no export packaging standard for succulents. When selling on a large scale (100,000s of plants) packaging cost becomes a major expense. An experienced exporter (Crous, 2004) recommended that whatever is available be used as packaging. A standard box for transporting canned goods will do. In the case of cacti, place pieces of cardboard between and on top of the cacti to prevent thorn damage. The plants can be packed in layers in the box. Roots should be removed. In a large scale operation large volumes are exported via ship. Up to two months could pass between the plants being placed in the transport container (20 or 40 foot) and being unpacked at their destination. The oxygen in the boxes and inside the container is adequate to sustain them. If stacked on top of each other the weight of the boxes will crush those below. To bypass this problem wooden frames are constructed with each box above the bottom box resting on a thin wooden platform. The bottom boxes rest on a standard shipping palette. A forklift is used to move the palette into the shipping container. Clients should be charged for packaging cost. Whether standardised or non-standardised packaging is used, contact information (including country of origin) should be provided on the outside of the box. This can either be printed on it or attached with a label. Not only does this make sense from a marketing perspective, but may also speed up processing at customs.

Table 10: Procedures for Export

• Find out freight rates
• Select a shipping line or vessel
• Register cargo on a shipping note and send shipping note to shipping company
• Register details on customs entry forms and send to customs
• Clarify if export permit is required from Ministry of Trade & Industry
• Arrange for adequate packing including shipping marks
• Provide the buyer with storage instructions
• Receive call forward notice from shipping company
• Send goods to port with consignment note
• Receive Bill of Landing from shipping company
• Pay freight bill
• Send Bill of Landing to shipping company and customer and/or to bank acting as intermediary

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

11. 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 11. 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 11: Invoice Declaration for EU

<i>English version</i>
<p>The exporter of the products covered by this document (customs authorization No . . . (1)) declares that, except where otherwise clearly indicated, these products are of . . . preferential origin (2) according to rules of origin of the Generalized System of Preferences of the European Community.</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">(place and date) (3)</p> <p style="text-align: center;">.....</p> <p style="text-align: center;">(Signature of the exporter; in addition the name of the person signing the declaration has to be indicated in clear script) (4)</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 11. 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 12 and 13 contain the tariff rates for succulents 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 12: EU Import Tariffs on Succulents Depending on Trade Scheme

Trade Scheme	Duty rate	
	Indoor plants Rooted cuttings and young plants, excluding cacti	Indoor plants Other
Third country duty (MFN)	6,5%	6,5%
LOMA (Cotonou)	0%	0%
SPGL (GSP)	3%	3%
South Africa	0%	0%

TARIC Codes: *Indoor plants Rooted* = 06029070; *Indoor plants Other* = 06029091.

Table 13: US Import Tariffs on Succulents Depending on Trade Scheme

Trade Scheme	Duty rate	
	Other live plants NESOI, with soil attached to roots	Other live plants NESOI, other than those with soil attached to roots
MFN	1,9%	4,8%
GSP	Duty free	Duty free
AGOA	Not eligible	Not eligible

NESOI = *not otherwise specified or included*. USITC Codes: *Other live plants nesoi, with soil attached to roots* = 06029060; *Other live plants nesoi, other than those with soil attached to roots* = 06029090.

12. Getting Started

First find a market before investing in a nursery. If the aim is to run a large scale operation, find a buyer in Europe or the United States. Buyers can advise on market trends. Both the NBRI and the Directorate Research and Extension of the MAWRD should be contacted for more information on cultivating the species with potential. The NBRI and the MET do not encourage the wild harvesting of plants for commercial purposes. Instead, they recommend that plant stock be generated from seeds. A nursery permit is a prerequisite for cultivating and selling the plants. Irrespective of cultivating from seed, or buying in plant material to start a nursery, the Directorate Parks and Wildlife Management of the MET is required by law to do an audit of plant-life in the area surrounding the nursery before issuing a nursery permit. This is done to monitor the state of wild plants in order to prevent exploitation.

13. 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.

14. Contact Information

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Ministry of Environment and Tourism
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15. Useful Websites

- British Cactus and Succulent Society
<http://www.bcsc.org.uk/index.html>
- Cactus and Succulent Plant Mall
<http://www.cactus-mall.com>
- International Network for Environmental Compliance and Enforcement
http://www.inece.org/links_pages/onlineresourcesCites.html
- Penroc Seeds
<http://www.penroc.co.za/pages/2Seeds.htm>
- Useful contact information
<http://members.mweb.com.na/research/env/env1.html>
- Succulenta UK
http://www.succulenta.nl/uk_index.htm

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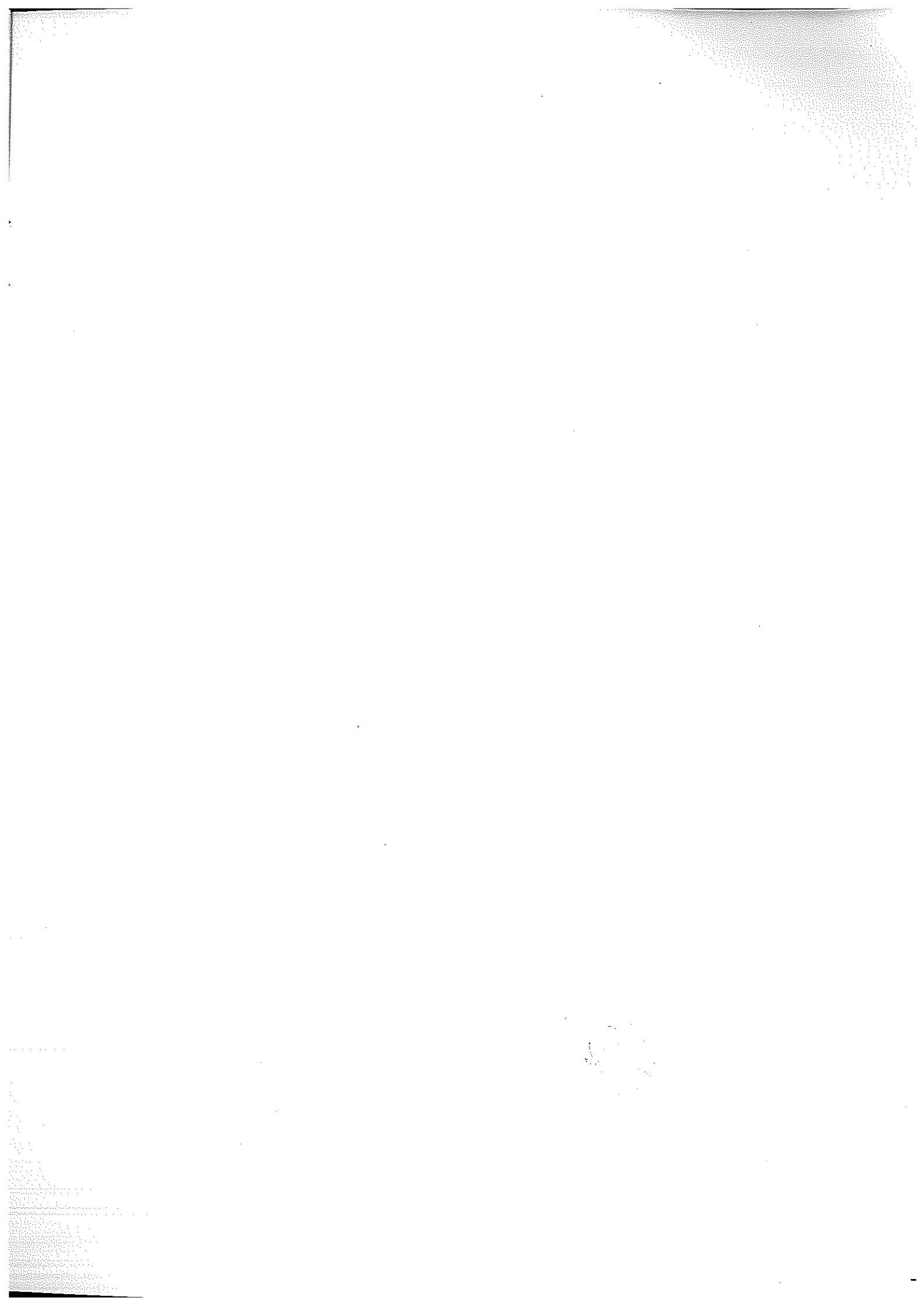
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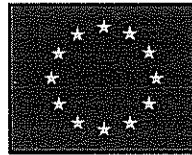
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18. Picture on Cover

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