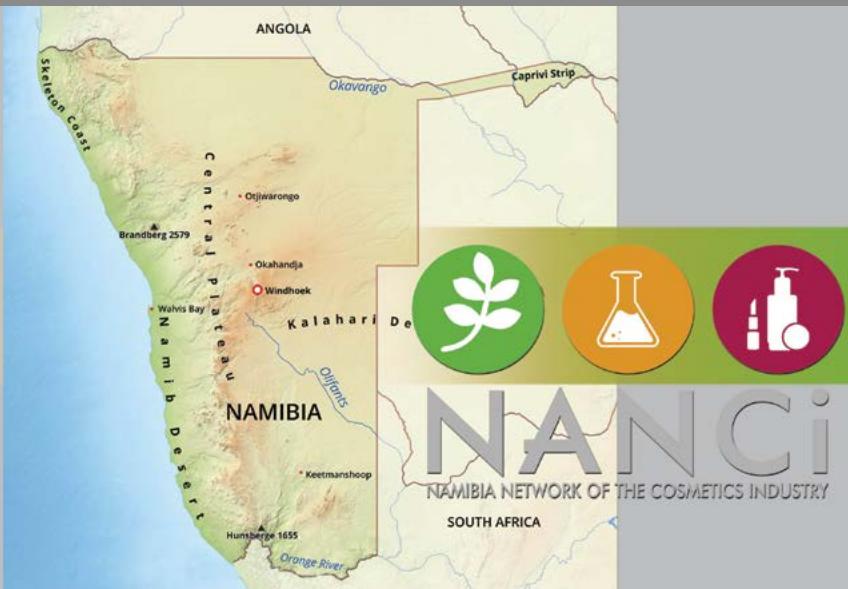


Fact Sheets and HS Codes

for the

Natural Ingredients and Cosmetics Industry



released December 2022



TRADE FORWARD
SOUTHERN AFRICA



HM Government



Implemented by
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Foreword

Namibia offers several interesting, wild harvested botanicals which are used as ingredients for health and personal care products, cosmetics, pharmaceuticals and food preparations.

Since the formation of NANCi in 2017, several members are now selling the products, that is, semi-processed input materials, ingredients and cosmetics based on these indigenous natural resources. The greater part of the products are sold as input materials or ingredients, in bulk, and offered to regional and international offtakers. NANCi members are also manufacturing final products using indigenous natural resources. NANCi members are in majority SMEs¹ and requested that a guide be availed to present the natural resources to interested parties, as well assist with the classification of customs codes to international markets for the different trade categories.

This guide book is aimed at highlighting the most distinct features of the botanicals and their most common uses, and presenting relevant trading information for each. The guide can be used, equally by NANCi members when engaging their trading partners, or as information material for interested offtakers. The manual will be available as an online version only, and persons interested in accessing it can contact NANCi.

NANCi would like to thank the following experts, institutions and development organisations for their firm support towards the guide book on Namibian natural resources and relevant trading information.

- GIZ ProBATS², for facilitating several workshops, ensuring that NANCi members had platforms for exchange to discuss the common challenges and find appropriate solutions. In fact, GIZ ProBATS has been by NANCi's side since its conceptualisation and inception. Without GIZ ProBATS, NANCi as an association and its single member companies would not have been enabled to make such great strides in the Namibian cosmetics, health and personal care industry in Namibia, and the SADC-sub region.
- GIZ ProBATS has also availed an intern over a period of six months who assisted in compiling the early draft of this guide book. A special thank you to Mr Geogeno Swartz, a final year student in B.Econ. at the Namibia University of Science and Technology in 2021.
- TFSA³ and the UK Government for availing direct funding to NANCi to hire a layout designer. This enabled NANCi to present the guide as a easy to use compendium on Namibian natural resources.
- NANCi members are thanked for their support and endurance to carry this important milestone to fruition.

Wishing you pleasure in using the guide book and good business,

Yours,
Ms Stefanie Huemmer
NANCi Chairperson 2019 - 2022

¹ The Namibian Ministry of Trade and Industry (MTI) in its SME policy from 1997 defines SMEs as manufacturing companies, employing less than 10 people, reaching a turnover of less than N\$1 000 000 and having a capital basis of less than N\$500 000.

² Gesellschaft für internationale Zusammenarbeit, Promotion of Business Advisory and Economic Transformation Services programme (2010 – 2022)

³ Trade Forward Southern Africa (2019 – 2023)



International trade with natural ingredients

The aim of this chapter as part of the fact sheets of Namibian natural ingredients, is to facilitate the ease of trade, both for suppliers of the ingredients as well as the off takers in international markets. We can unfortunately offer excerpts only, and will focus the attention of tariffs on ingredients as per the Harmonised Systems (HS) Codes.

Following regulations and international trade rules and/or marketing trends remains the obligation of interested parties.

The Business Environment for international trade

International business is a broad area of business that has been tailored to absorb unique characteristics of the global climate. In comparison to the domestic world, foreign companies operate in highly unpredictable environments wherein the rules are often vague, inconsistent, and subject to rapid change.

When considering exporting products, it is important that the company assesses their export readiness in terms of the business and the products to be exported.

Business Readiness

The readiness of the business should be assessed by considering the following aspects:

- Commitment from the business to develop an international market as the business operations may need to be rearranged.
- Management skills such as experience selling products in other countries, processing export orders and understanding the export processes.
- Financial resources: does the business have the funding to export, as developing the international market can be more costly than the domestic market. Is there funding to adapt the product and packaging for the international market?
- Technical expertise to ensure that the product is suited for the international market, as well as to undertake research and development, and have knowledge of potential competitors.
- Capacity to supply and manufacture for the international market as well as to produce at short notice.
- International market intelligence.

Product Readiness

The product readiness can be assessed by considering the following aspects:

- Success in the local market based on potential to find international buyers at competitive prices.
- Product adaptability through assessing the function of the product and whether the packaging/labels/manuals can be adapted to the international market.
- Cost structure of manufacturing the product which includes the materials used and whether they are sourced locally. The manufacturing process may need to cope with bigger orders. The product may be price sensitive and freight costs may be too high.
- Competitors' products are their advantages over the competitors' products?
- Product complexity such as the technology required to use the product. Does the buyer



require skills to use the product and are there utilization demands such as power/electricity? Would the buyer require after sales services such as repairs or spares?

International trade finance and risk management

International trade finance and risk management describes the different forms of risks in international trade and how to use a combination of payment, currency, financial, guarantee and insurance alternatives to form terms of payment that will secure even the most challenging trade transaction. The various aspects to be considered under trade finance and risk management consider:

- Contracts
- Payment methods
- INCOTERMS®

Operations and logistics

Logistics operations is an essential part of the supply chain and refers to the process of moving finished (an ingredients can also be considered a finished good), starting from the processor/manufacturer, and moving to the off taker or end user. The entire inbound and outbound logistics process consists of managing commerce (or ecommerce) inventory and fulfilling and shipping orders. Inventory management, warehousing/appropriate storage, and order fulfilment all play a key role in optimising trade logistics. While larger companies may have dedicated logistics directors to manage logistics operations, smaller business owners typically handle it themselves. The following headline items are important to note:

- Establishing the shipment timeline
- Calculating cost of goods
- Pricing
 - Cost orientation
 - Demand orientation
 - Competitor orientation
 - And/or in addition, brand orientation.

Regulatory framework for international trade

A regulatory framework can have varying meanings, but it commonly pertains to tax information, necessary regulations and other important information, like relevant rules, laws and regulatory bodies. Regulatory frameworks are important tools for businesses that are about to launch because these frameworks outline the measures of burden new businesses must be aware of when they begin to establish their enterprises.

Businesses are required to register as exporters prior to exporting. This can be done at the local authority responsible for export registration. Evidence of compliance with regulation is given by appropriate documentation which involves the following for products or ingredients from natural resources:

- Proforma invoice or quotation
- Commercial invoice
- Packing list, optimally detailing the HS codes of each item as part of the consignment
- Waybill (air, shipment or road freight or equivalent)



- Bill of lading
- Certificate of origin
- Export permits, including ABS compliance certification and/or CITES certification
- Phytosanitary certificates, including certificate of analysis and material safety data sheets.

Please note, ingredients, under international trade terms, are classified as either naturally based or synthetic chemicals. Therefore, no freight forwarder will accept the goods for transport if consignments are not accompanied by a certificate of analysis and material safety data sheet. For natural ingredients, a phytosanitary certificate is additionally required. Some markets may even require attestation that fumigation was carried out on the produce prior to the issuing of a phytosanitary certificate. In this case, the pest control certification must accompany the phytosanitary certificate.

Technical standards and procedures

Technical standards and procedures refer to those legal and market (off taker) requirements the products need to fulfil to be granted entry to the marketplace, even if your product is only one of many ingredients that go into a final product produced elsewhere. These include the HS classification of commodities, as well as the basic principles of the specific, relevant standards and regulations, namely, Global GAP, HACCP, GACP, GMP, NOP, JAS and so forth.

It is important that exporters understand the requirements when sending goods to the destination country. Each country has their own quality standards and processes for importing. Where possible, exporters should liaise with the buyer/importer to find out of there are any export certifications/tests/assessments required prior to shipping goods. This will ensure that delays with import clearances are avoided.

Some¹ of the organisations and/or labels that exporters need to be aware of are:

APHIS:	Animal Plant Health Inspection Service (U.S. Department of Agriculture)
CBP:	U.S. Customs and Border Protection
Clearing House of the CBD:	Convention on Biological Diversity (United Nations)
CITES:	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EMA:	European Medicines Agency
EPA:	U.S. Environmental Protection Agency
FAO:	Food and Agricultural Organisation (United Nations)
FDA:	U.S. Food and Drug Administration
GACP:	Good Agricultural and Collection Practices (for mainly wild harvested botanicals)
GAP/ Global GAP:	Good Agricultural Practices (for cultivated, commercial crops)
GMP:	Good Manufacturing Practices (separate ones valid for the food, cosmetics and pharmaceutical sectors)

¹ Please note, this list is non-conclusive. You will have to verify for each ingredient/commodity you which to trade with, what documentation or evidence needs to be delivered.



HACCP:	Hazard Analysis and Critical Control Point (mainly for food sector)
HTS:	Harmonized Tariff System/Schedule (Customs code)
JAS:	Japanese organic plants and organic processed food labelling from the Ministry of Agriculture, Forestry and Fisheries
NOP:	National Organic Programme (of the USDA)
USDA:	United States Department of Agriculture

Customs (HS) Codes

The World Customs Organisation develops international standards, fosters cooperation and builds capacity to facilitate legitimate trade, to secure a fair revenue collection and to protect society, providing leadership, guidance and support to Customs administrations.

The system of classification called Harmonised System (HS), or short HS Codes, was developed and is maintained by the World Customs Organisation (www.wcoomd.org). The HS number is an international product class identification number. It is used mainly for customs classifications and collecting world trade statistics. The HS classification number consists of 6 digits. HS codes must be stated on all freight forwarding documents, even if you intend to post a sample to a potential customer.

The HS codes are consisting of a well-structured numbering system (digits), and can be understood as follows:

Section	Tariff Chapter	Heading	Sub-Heading 1	Sub-Heading 2	Statistical Suffix
06	33	01	90	90	90
Products of chemical or allied industries	Essential Oils, etc.	Essential oils of citrus fruit	Other (ie, not of orange and not of lemon)	Other	Other
Determined by the HS Classification System			Determined by destination country		

The 6-digit HS codes typically refer to the numbering from tariff chapter through to sub-heading 1. Sub-heading 2 and the statistical suffix four additional digits of choice as required by the destination country. The new HS codes are enforced by the World Customs Organisation (WCO – www.wcoomd.org) since 1 January 2022, and require the customs classification by product section to be included.

a) HS Codes Sections

Section I - Live Animals; Animal Products

Section II - Vegetable Products

Section III - Animal or Vegetable Fats And Oils And Their Cleavage Products; Prepared Edible Fats; Animal Or Vegetable Waxes



Chapter 5 - Products of animal origin, not elsewhere specified or included

Section IV - Prepared Foodstuffs; Beverages, Spirits And Vinegar; Tobacco And Manufactured Tobacco Substitutes

Section V - Mineral Products

Section VI - Products Of The Chemical Or Allied Industries

Chapter 33 -Essential Oils and Resinoids; Perfumery, Cosmetic or Toilet Preparations

Chapter 34 -Soap, Organic Surface-active Agents, Washing Preparations, Lubricating Preparations, Artificial Waxes, Prepared Waxes, Polishing or Scouring Preparations, Candles And Similar Articles, Modelling Pastes, "Dental Waxes" and Dental Preparations with a Basis of Plaster

Section VII - Plastics And Articles Thereof; Rubber And Articles Thereof

Section VIII - Raw Hides And Skins, Leather, Fur skins And Articles Thereof; Saddlery And Harness; Travel Goods, Handbags And Similar Containers; Articles Of Animal Gut (Other Than Silkworm Gut)

Section IX - Wood And Articles Of Wood; Wood Charcoal; Cork And Articles Of Cork; Manufactures Of Straw, Of Esparto Or Of Other Plaiting Materials; Basketware And Wickerwork

Section X - Pulp Of Wood Or Of Other Fibrous Cellulosic Material; Recovered (Waste And Scrap) Paper Or Paperboard; Paper And Paperboard And Articles Thereof

Section XI - Textiles And Textile Articles

Section XII - Footwear, Headgear, Umbrellas, Sun Umbrellas, Walking Sticks, Seat-Sticks, Whips, Riding-Crops And Parts Thereof; Prepared Feathers And Articles Made Therewith; Artificial Flowers; Articles Of Human Hair

Section XIII - Articles Of Stone, Plaster, Cement, Asbestos, Mica Or Similar Materials; Ceramic Products; Glass And Glassware

Section XIV - Natural Or Cultured Pearls, Precious Or Semi-Precious Stones, Precious Metals, Metals Clad With Precious Metal, And Articles Thereof; Imitation Jewellery; Coin

Section XV - Base Metals And Articles Of Base Metal

Section XVI - Machinery And Mechanical Appliances; Electrical Equipment; Parts Thereof; Sound Recorders And Reproducers, Television Image And Sound Recorders And Reproducers, And Parts And Accessories Of Such Articles

Section XVII - Vehicles, Aircraft, Vessels And Associated Transport Equipment

Section XVIII - Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical Or Surgical Instruments And Apparatus; Clocks And Watches; Musical Instruments; Parts And Accessories Thereof

Section XIX - Arms And Ammunition; Parts And Accessories Thereof

Section XX - Miscellaneous Manufactured Articles

Section XXI - Works Of Art, Collectors' Pieces And Antiques



b) Common Customs Codes for natural ingredients and cosmetic, personal care and health care products from Namibia to various markets

Product	Market	HS Code for Exports
Oil seeds or medicinal plants	Cosmetics	1211.90.90
Essential oils	Cosmetics	3301.29.90
Seed oil (all Namibian botanical oils fall into this category)	Cosmetics	1515.90.90
Body oil	Personal Care	3304.99.90
Body oil	Personal Care	3304.99.90
Body/ Facial scrub	Personal Care	3304.99
Bath salt	Personal Care	3307.30
Deodorant	Personal Care	3307.20.10-(aerosol container) 3307.20.90-other
Shampoo/Conditioner	Personal Care	3305.10
Soap	Personal care	3401.19- Solid 3401.30-Liquid
Skin cream	Personal Care	3304.99.90- without Sunscreen 3304.99.30- Sun protection of 15 or more
Aftershave	Personal Care	3307.10.20-(aerosol container) 3307.10.90-other

c) Resources for verifying customs codes

Exports to USA: <https://www.trade.gov/harmonized-system-hs-codes>

Exports to EU: <https://trade.ec.europa.eu/access-to-markets/en/home>

Exports to UK: https://www.trade-tariff.service.gov.uk/find_commodity

Exports to South African or other SACU member states: <https://www.sars.gov.za/wp-content/uploads/Legal/SCEA1964/Legal-LPrim-CE-Sch1P1Chpt1-to-99-Schedule-No-1-Part-1-Chapters-1-to-99.pdf>

General non-tariff information for selected markets

Trade between Namibia (or SACU) with Korea:

Cosmetics importers must register all their products and several pieces of information throughout the EDI (Electronic Data Interchange) system operated by the Korea Pharmaceutical Traders' Association (KPTA) as a means of pre-market control.

As the obligation of domestic producers differs, this measure is considered as discriminatory.

In addition, it is redundant given that an almost identical set of information is required to be submitted to the Korea Food and Drug Administration (KFDA) for importers being registered as distributors under the revised Enforcement Regulation of the Cosmetic Act. This constitutes a burdensome administrative procedure which results in time delay and possible leakage of confidential/business-sensitive information (ingredients, import prices, and frame formula of the product concerned, etc.).

Trade between Namibia (or SACU) with EU:

Complex, overly protective and overlapping rules of origin could be a potential threat to market access and regional collaboration in the natural products trade. Cumulation between African Caribbean and Pacific (ACP) members in different Economic Partnership Agreement (EPA) with the EU is a potential concern as it relates to rules of origin.

Seed oil may have to be registered as Cosmetic ingredient as per the EU Cosmetic Directive: 76/768/CEE, 1976 and as an industrial chemical under the EU's registration, evaluation and authorisation of chemicals (REACH) Directive: EC No 1907/2006.

EU Commission Regulation (EU) No 655/2013 requires claims for a cosmetic product (explicit or implicit) to be supported by sufficient and provable evidence.

Cosmetic Regulation (EC 1223/2009) is the central regulatory framework for cosmetic products for the European market, covering the safety and effectiveness of cosmetic products.

The EU has packaging and labelling requirements for chemicals based on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) outlined in its Classification, Labelling and Packaging (CLP) Regulation (EC) 1272/2008

The Cosmetics Regulation 1223/2009 covers the safety and efficacy of cosmetic products including claims. The regulation requires cosmetics manufacturers to prepare a 'Cosmetic Product Safety Report' and 'Product Information File' for their products

To market products to the EU member countries as an organic product, one needs to implement organic farming techniques and have your facilities audited by an accredited certifier. These requirements are specified in the European Union Regulation 834/2007.

In addition, quality management standards are important to European buyers. Common standards are ISO 22000, FSSC 22000, ISO 9001:2015, Good Agricultural and Collection Practices, and Hazard Analysis & Critical Control Points.

Trade between Namibia (or SACU) with the rest of the world:

Harmonization of custom procedures in the region is of essence to promote free trade in natural products.

Trade facilitation issues such as availability and cost of containers and trans-shipment difficulties as well as poor infrastructure could discourage investment in the sector.

Trade between Namibia (or SACU) with USA:

In the USA, cosmetics and cosmeceuticals are controlled under the Federal Food, Drug, and Cosmetic Act, as amended in December 2004 and the Fair Packaging and Labeling Act

Trade between Namibia (or SACU) with China:

The cosmetics industry is facing a number of market access issues in China: The Cosmetics Supervision and Administration Regulation implementing acts would require a significant amount of information for the registration of cosmetic products in China. (HIGH BARRIERS TO ENTRY) GB 7916 1987: Hygienic standards for cosmetics: GB 7917 1987 (1 to 5): Related to hygienic standards and testing procedures. GB 7918 – 1987 (1 to 5): Hygienic standards. GB 7919 1987: Procedures and methods of safety evaluation of cosmetics, Except for hygienic standards and product testing, you also need to comply with GB standards related to labelling: GB 5296.3 – 2008 (Instruction for use of consumer products – General labelling of cosmetics)

General tariff information for selected markets

Trade between Namibia (or SACU) with the rest of the world:

The natural product (NP) sector can expect to find its margin of preference eroded in future trade negotiations and needs to develop its competitive edge accordingly.

Most NP's have no specific HS code, so volumes of trade are difficult to measure.

Trade between Namibia (or SACU) with EU and UK:

VAT is paid in the country where the product is sold. Import duties, on the other hand, are paid when the products enter the EU customs territory. So, for example if the product arrives first in the Netherlands before reaching the final destination in France, import duties will be paid in the Netherlands, but VAT will be due in eg, France.

In addition to the UK and EU Cosmetics Regulations, other legislation affecting cosmetic products includes the Weights and Measures Act, Trade Descriptions Act, the Consumer Protection Act, legislation on alcohol, legislation on aerosols, legislation on Registration, Evaluation and Authorisation of Chemicals (REACH) and the Health and Safety at Work Act.

Cosmetics imported from other third countries, which are not EU countries, will be subject to the UK Global Tariffs plan, unless there is a Free Trade Agreement between the UK and that third country.

Trade between Namibia (or SACU) with Turkey:

Turkey has made numerous individual decisions, each covering a new set of products to be subject to duties above the Common Customs Tariff the EU-Turkey Customs Union agreement obliges Turkey to apply. Products originating in the EU or FTA partners of Turkey are not subject to these 'additional duties'. However, products originating in third countries are subject to additional duties when imported via the EU even if they were in free circulation in the EU. In relation to the additional duties, a concurrent problem is the requirement for a proof of origin even when exporting goods in free circulation to Turkey with an A. TR movement certificate

Trade between Namibia (or SACU) with Korea:

South Korea implemented the Recycling Act in December 2019, which is applicable and impacts all products available in South Korea including cosmetics. Under the Recycling Act, the usage of plastic materials that are difficult to recycle such as PVC and coloured PET bottles has been banned.



REFERENCES

- ProFound-Advisor In Development, P.-A. (2014). Sorting cocoa beans in the Dominican Republic-© The Fairtrade Foundation. [Online] Available https://usercontent.one/wp/www.tdc-enabel.be/wp-content/uploads/2020/11/Wild-collected-botanicals-and-the-EU-market_Final-report.pdf [accessed 16 Nov 2021]
- Venture Publication. (2014). The Commercialisation of Indigenous plant products in Namibia. Windhoek: Available on <http://the-eis.com/elibrary/sites/default/files/downloads/literature/Indigenous%20Plant%20Products%20in%20Namibia.pdf> [Accessed on 16 Nov 2021]
- Rees/AbioSA/GIZ, J. (2020 October). Retrieved from ABS-Biotrade: <https://www.abs-biotrade.info/value-chains/boabab> [Accessed 16 Nov 2021]
- GEPA. (2017). EUROPEAN MARKET ACCESS REQUIREMENTS FOR COSMETICS. Retrieved from Ghana Export Promotion Authority(GEPA): <https://www.gepaghana.org/access-requirement/european-market-access-requirements-for-cosmetics/> ONLINE [Accessed 16 Nov 2021]
- The Cosmetic,Toiletry and Perfume Association Ltd (2021). frequently asked question. Retrieved from ctpa: <https://www.ctpa.org.uk/faqs> ONLINE [Accessed 16 Nov 2021]
- Europen Union. (2021, April 02). Acces2Markets. Retrieved from European Union : https://trade.ec.europa.eu/access-to-markets/en/barriers/details?barrier_id=12260&sps=false ONLINE [Accessed 16 Nov 2021]
- European Union (2021, October 13). Access2Markets. Retrieved from European Union : https://trade.ec.europa.eu/access-to-markets/en/barriers/details?isSps=false&barrier_id=12160 ONLINE [Accessed 16 Nov 2021]
- Export2Asia. (2020, September 14). Exporting Cosmetics & Skin Care Products to China: A Complete Guide. Retrieved from Export2Asia: <https://www.export2asia.com/blog/exporting-cosmetics-skin-care-products-china/> ONLINE [Accessed 16 Nov 2021]
- Entering the European market for essential oils. (2021, February 10). Retrieved from CBI Ministry of Foreign Affairs : <https://www.cbi.eu/market-information/natural-ingredients-cosmetics/essential-oils/market-entry> ONLINE [Accessed 16 Nov 2021]
- Centre for the Promotion of Imports from developing countries (2021, February 10). Entering the European market for essential oils. Retrieved from CBI Ministry of Foreign Affairs: <https://www.cbi.eu/market-information/natural-ingredients-cosmetics/essential-oils/market-entry> ONLINE [Accessed 16 Nov 2021]

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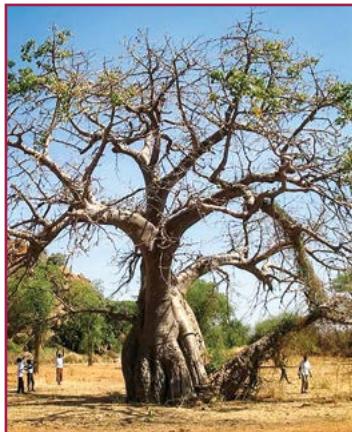
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NANCI is the network for the health and beauty industry in Namibia.

Common Names

Oshiwambo:	Omukwa
Kwangali:	Euyu
Otjherero:	Omuzu
Zambezi:	Mubuyu
San:	//om, //um
German:	Affenbrothaum
Afrikaans:	Kremetartboom

Introduction



▲ (Photo: World Agroforestry Centre)

Description

The Baobab is a deciduous tree which can reach a height of up to 25 metres. It has a massive, convoluted trunk and wide-spread branches with a large round canopy. The leaves are palmate-shaped and the tree bears white flowers. The large ovoid fruit is velvety and olive-green in colour, and both fruit and flowers hang from large stalks. The fruit is a capsule with a hard, woody shell. A large number of seeds are embedded in a whitish powdery fruit pulp. (Sidibe M, 2002), (Curtis & Mannheimer, 2005).

Traditional knowledge

The bark and fruit are used in traditional medicine. The fruit pulp is generally eaten or mixed with milk or cooked like porridge (NBRI, 2019), (Curtis & Mannheimer, 2005).

The fruits and seeds have a long history of traditional use. Baobab products are today produced and exported from at least ten African countries. (Rees/ABioSA/GIZ, 2020) Baobab seed oil is a stable oil, which makes it easier to incorporate in cosmetic formulations. The seed oil is also high in omega fatty acids, and demand for it is increasing in Europe. Baobab seed oil has good potential in anti-aging products. Moreover, its hair conditioning properties make it an interesting ingredient for the hair care segment. However, as baobab is still a niche product and has a relatively high price, opportunities in this segment would be limited to exclusive hair care products (ProFound – Advisers In Development, 2014)

Status — Namibia: protected

Distribution



◀ (Mannheimer, 2015)

Composition and Use

The fruit shell is broken and the white pulp separated from the seeds. The pulp is used in various speciality and health foods. The seeds are rich in protein and fat and are roasted and eaten as a snack. Oil, both for consumption and industrial use, especially for cosmetic products, is pressed from the seeds. (du Plessis & Gamond, 2004)



▲ Baobab fruit, seeds and pulp
(Photo: Tuli Kaapanda).

The seed oil consists of palmitic acid (25 - 46%), oleic acid (21 - 59%), linoleic acid (12 - 29%) and β -Sitosterol (75%) (Sidibe M, 2002). The fruit pulp is rich in tartaric, ascorbic and malic acids.

General market and trade information

Baobab fruit is harvested by rural communities. After sorting and grading, the fruit is processed into fruit pulp powder and seed oil for export. The fruit juice and syrup are produced for local markets. Where baobab fruit pulp has been mechanically processed into powder in the country of origin, it can be sold directly in Europe. Baobab seed oil is pressed in the country of origin and exported as crude oil to Europe, where it can be further processed, using deodorization and ultrafiltration. Many European companies are now developing and promoting products based on baobab, both as an ingredient and in final products (ProFound – Advisers In Development, 2014). Baobab seed oil is gaining in popularity with its antioxidant activities and high content of omega fatty acids. Its long history of use, its iconic and exotic origin and potential benefits to local livelihoods, can contribute to the marketing story of this product (ProFound – Advisers In Development, 2014, p. 53).

Non-tariff trade information

The tree is not CITES listed, but is protected in some countries (e.g. South Africa) and licenses are needed to collect the fruit.

The tree is hardly ever cultivated due to its slow growth and reproduction cycle (fruit are eaten by animals and seeds leave their dormancy phase

only when passing through the gut). There have been studies on cultivation of baobab trees, but competition from cultivation is not expected to become substantial.

Research project on baobab native oil has commenced in 2022. The main aim of the research is to establish a database on marula oil from sub-Saharan Africa, to be known as the b-TAF* database. This database would be like the *codex alimentarius* database for common food oils like olive and sunflower oil. The project is funded by ABIOSA, and runs from November 2022 to October 2025. Southern African producers of marula and baobab oils are invited to participate.

*b-TAF = botanicals Trusted and Authenticated Fingerprinting

REFERENCES

- Curtis, B., & Mannheimer, C. (2005). *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.
- du Plessis, P., & Gamond, R. (2004). *Promoting indigenous fruit in Namibia: Final report on Baobab*. Windhoek: Indigenous Plant Task Team.
- Mannheimer, C. (2015). Map indicating the study areas and distribution of baobab in Namibia. *National Remote Sensing*.
- NBRI. (2019). <http://www.nbri.org.na/sections/economic-botany/INP/sectors/Other>.
- Sidibe M, W. J. (2002). Baobab, *Adansonia digitata* L. *International Centre for Underutilised Crops*, Southampton, UK.
- ProFound-Advisor In Development, P.-A. (2014). Sorting cocoa beans in the Dominican Republic. © The Fairtrade Foundation. [Online] Available: https://usercontent.one/wp-content/uploads/2020/11/Wild-collected-botanicals-and-the-EU-market_Final-report.pdf [accessed 16 Nov 2021]



Baobab - *Adansonia digitata*

Product	Market	General	HS Code	Import Permit	Inspec-tion	Excise Duties	HS Code for Exports to USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.12.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Seed powder	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.00.90
		1302.39.20-Modifed	1302.39.20.7	Dept. of Health	N/A	N/A	
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	N/A	3301.90.50.00
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	7%	3304.91.00.50
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.50.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Bath oil	Personal care	3307.7.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.50.00
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	7%	3304.30.00.00

* Con = containing

INCI ADANSONIA DIGITATA Seed oil

CAS Number: 91745-12-9



Baobab - *Adansonia digitata*

Product	Market	HS Code for Exports to UK					
		General	HS Code	Import Permit	Inspection	Excise Duties	UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Seed powder	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.00.00
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A	
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	N/A	3301.90.90.00
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	7%	3304.91.00.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Bath oil	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.00.00
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	7%	3304.30.00.00

* Con = containing

ADANSONIA DIGITATA Seed oil

CAS Number: 91745-12-9
INCI



Baobab - *Adansonia digitata*

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A
Seed powder	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	N/A
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	7%
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%
Bath oil	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	7%
						3304.99.00.99 - other packing otherwise labelled
						3304.30.00.02 -packaging labelled with content by volume
						3304.30.00.03-packaging labelled with content by number of pieces

* Con = containing
INCI ADANSONIA DIGITATA Seed oil

CAS Number: 91745-12-9



Baobab - *Adansonia digitata*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to EU
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Seed powder	Cosmetics modified	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.00.00
	1302.39.20-Modified	1302.39.20.7	1302.39.20.7	Dept. of Health	N/A	N/A	
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	N/A	3301.90.90.00
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	7%	3304.91.00.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Shampoo/conditioner	Personal care	3305.10.00.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
	3401.30- Liquid	3401.20.00.5	N/A	Port Health	N/A	N/A	3401.30.00.00-Liquid
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
	3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%		
Bath oil	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.00.00
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	7%	3304.30.00.00

* Con = containing
INCI ADANSONIA DIGITATA Seed oil
CAS Number: 91745-12-9

Adansonia digitata

Baobab - *Adansonia digitata*

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90.00
Seed powder	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	1302.39.00.00
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	3301.90.48.00
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	3304.91.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.00
Soap	Personal care	3401.19.-Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%
Bath oil	Personal care	3307.30	3307.30.00.0	Port Health	N/A	3307.30.20.00
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	3304.30.10.00

* Con = containing

INCI

CAS Number:

ADANSONIA DIGITATA Seed oil

91745-12-9



Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90
Seed powder	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	1302.39.0
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	3301.90.90
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	3304.91.10-Face
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	3304.99.90
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.10- Con* Spirit
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%
Bath oil	Personal care	3307.30	3307.30.00.0	Port Health	N/A	3307.30.90
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	3304.30

* Con = containing

INCI ADANSONIA DIGITATA Seed oil

CAS Number: 91745-12-9



Baobab - Adansonia digitata

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.91.90.00
Seed powder	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.00.90.00
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A	
Massage oil	Personal care	3301.90.90	3301.90.90.0	Plant Health	N/A	N/A	3301.90.90.90.00
Clay mask	Personal care	3304.91.90	3304.91.90.8	Port Health	N/A	7%	3304.91.00.00.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.90.13
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19.Solid 3401.30.Liquid	3401.11.00.7 3401.20.00.5	N/A N/A	Port Health Port Health	N/A N/A	3401.11.00.90.00-Solid 3401.30.00.00.00-Liquid
Face cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Bath oil	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.00.00.00
Nail moisturiser	Personal care	3304.30.90	3304.30.90.4	Port Health	N/A	7%	3304.30.00.00.00

* Con = containing

ADANSONIA DIGITATA Seed oil

91745-12-9

INCI

CAS Number:

Commiphora

Commiphora wildii



Common Names

English:	Namib/Namibian Myrrh
Otjiherero:	Omumbiri

German: Eichenblattbalsam

Introduction



Commiphora wildii is a deciduous shrub-like tree 1-2,5 m tall growing mostly over rocks. The trunk branches just above ground level into relatively thick stems. The bark is grey-brown, shiny, smooth and occasionally peeling in papery strips. The young branches are very short and stout with pinnate leaves shaped similar to the leaves of an oak tree. Flowers are unisexual and the fruit is an ovoid to globular shape (Curtis & Mannheimer, 2005).



Status - Namibia: protected, near endemic

Distribution

(Curtis & Mannheimer, 2005)

It is found in north-western Kaokoland down to Uis near the Brandberg.



Traditional knowledge

The amber-coloured resin collected from *C. wildii* is the most important plant product used by Himba women of the Kunene region in their traditional perfume (Curtis & Nott, 2006). The women blend the resin with ochre and butterfat to use it as a perfumed body cream.

The essential oil distilled from the resin is rich in anti-oxidants and is used as an anti-bacterial and anti-inflammatory agent. The smooth, fresh and slightly spicy aroma is used to fragrance various cosmetic products (Nott, 2014).

Harvesting and sustainable use of resource

In the hot, dry season when temperatures start rising, the *C. wildii* trees produce their resin. The Himba women harvest their Omumbiri resin by picking it up from the ground below the plant or by picking it off the branches. Only naturally exuded resin is collected and non-destructive methods of harvesting are used. The resource is available in far greater quantities than is needed traditionally which enabled commercialisation of the resin and its essential oil called Namibian Myrrh. The sub-committees on plants working in the five Kunene conservancies, manage and monitor the sustainable utilisation of this resource. (Curtis & Nott, 2006). With the support of the Namibian government



and international development grants, a viable supply chain has been developed since 2006. (Nott, 2014). Harvesting is done within the communities in the Kunene region. (Nott, 2014).

Processing

The resin is distilled into an essential oil known as Namibian Myrrh. The Opuwo Processing Facility is owned by the Kunene Conservancies Indigenous Natural Products Trust. Representatives of these conservancies, where the resin is harvested, serve on the Trust.

Composition and use

The essential oil from the *C. wildii* resin is a complex mixture of compounds, consisting mostly of monoterpenes, oxygenated monoterpenes, sesquiterpenes, oxygenated sesquiterpenes and diterpenes. The oil produced from fresh resin is qualitatively different from the oil produced from the mature resin (Sheehama, 2017).

MSDS available from KCINPT

CAS: 1082996-27-7

INCI: COMMIPHORA MYRRHA OIL

Potential for further development

Namibian Myrrh is a unique true myrrh with distinct cultural use. In addition to its current use, both regionally and intentionally, further expansion into the cosmetic market is envisaged (Scents of Namibia, 2018). The indigenous essential oil products have made their way to retailers in the EU and other markets.

General market information

With the support of the Namibian Government and several development grants, a viable and community-based supply chain has been developed since 2006. In addition to the current use of this ingredient, both regionally and internationally, further expansion into the international cosmetic market is envisaged. (Janabi, 2020). Although there is international trade for Namibian myrrh,

it is unlikely that *C. wildii* essential oil will become as commonplace in the essential oil markets as the globally well-known oils such as lavender. This is because the latter has been used globally for generations, and their properties and uses are common knowledge. (The Commercialisation of Indigenous plant products in Namibia, 2014, p. 90)

Namibian myrrh is produced in considerable quantities by the local community.

A dossier is available. Users of fragrances and flavours are encouraged to contact the Kunene based community trust for details (www.nanci.biz).



REFERENCES

Photos: K. Nott

Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.

Curtis, B. & Nott, K., 2006. Commiphora Resources In Kunene Conservancies: The Smell Of Success?. *Edition Of Conservation And The Environment In Namibia*.

Nott, K., 2014. Essential oils: Commiphora. In: *The commercialisation of indigenous natural plant products in Namibia*. Windhoek: Venture Publications.

Scents of Namibia, 2018. *Scents of Namibia*. [Online] [Accessed Nov 2019].

Sheehama, J. T.-O., 2017. Chemical Characterisation Of The Volatile Constituents Of Essential Oil From Commiphora Wildii (Omumbiri) Resin. *UNAM (200615394)*, February.

Janabi, S. o. (2020, October). Namibian myrrh (Commiphora wildii). Retrieved from abs-biotrade.info/value-chains/Namibian-myrrh-commiphora-wildii/: Available on <https://www.abs-biotrade.info/value-chains/namibian-myrrh-commiphora-wildii/> [accessed on 16 Nov 2021]

Venture Publication. (2014). The Commercialisation of Indigenous plant products in Namibia. Windhoek: Available on <http://the-eis.com/elibrary/sites/default/files/downloads/literature/Indigenous%20Plant%20Products%20in%20Namibia.pdf> [Accessed on 16 Nov 2021]



Commiphora *wildii*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept. of Health	N/A	N/A	1301.90.91.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.30.00 - Con* Alcohol
							3303.00.20.00 - Not Con*. Alcohol
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.20.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Skin cream	Personal care	3304.99.90 - without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI

CAS Number:

COMMIPHORA MYRRHA Oil

1082996-27-7



Commiphora - Commiphora wildii

Product	Market	HS Code for Exports to					
		General	HS Code	Import Permit	Inspection	Excise Duties	UK
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept. of Health	N/A	N/A	1301.90.00.00
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.90
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.10.00
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.90.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI

COMMIPHORA MYRRHA Oil

1082996-27-7

CAS Number:

Commiphora

Commiphora wildii



Commiphora - Commiphora wildii

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to China
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept of Health	N/A	N/A	1301.90.20
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.99.99
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.00.10
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.00.10-Labelling
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3303.00.00.20-Other
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3303.00.00.20
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.39-other packing
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99- other packing otherwise labelled

* Con = containing

INCI COMMIPHORA MYRRHA Oil

CAS Number: 108299-6-27-7



Commiphora - Commiphora wildii

Product	Market	HS Code for Exports to					
		General	HS Code	Import Permit	Inspection	Excise Duties	EU
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept. of Health	N/A	N/A	1301.90.00.00
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.10.00
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.90.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.00-Solid
Skin cream	Personal care	3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
		3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI COMMIPHORA MYRRHA Oil

CAS Number: 1082996-27-7



Commiphora - Commiphora wildii

Product	Market	HS Code General	HS Code Import Permit	Inspection	Excise Duties	HS Code for Exports to Korea
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept. of Health	N/A	1301.90.10.00
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	3303.00.10.00
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	9%
						3303.00.20.00
						3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certified	N/A	3401.19.10.90-Solid
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certified	N/A	3401.30.00.00-Liquid
						3304.99.10.00
						5%

* Con = containing

INCI

COMMIPHORA MYRRHA Oil

1082996-27-7

CAS Number:



Commiphora - Commiphora wildii

Product	Market					HS Code for Exports to India
		General	HS Code	Import Permit	Inspection Excise Duties	
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept. of Health	N/A	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.41/49
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9% 3303.00.40- not Con* Spirit 3303.00.50- Con* Spirit
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9% 3303.00.40- Not Con* Spirit 3303.00.50- Con* Spirit
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.10- Con* Spirit
Soap	Personal care	3401.19	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7% 3304.99.30- moisturising lotion
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5% 3304.99.10- Face cream
						3304.99.90- other

* Con = containing

INCI

COMMIPHORA MYRRHA Oil

CAS Number:

1082996-27-7



Commiphora *wildii*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Gum	Cosmetics	1301.90	1301.90.00.9	Customs/Dept. of Health	N/A	N/A	1301.90.00.39.00
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.91.90.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.10.00.00
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.90.00.19
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.90.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00.00-Liquid
Skin cream	Personal care	3304.99.90 - without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
		3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI

COMMIPHORA MYRRHA Oil

1082996-27-7
CAS Number:

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Common Names

German:	Teufelskralle
Oshiwambo:	Omakakata
Otjiherero:	Otjihangatene
Siloz:	Malamatwa
Damara:	Gamaku
English:	Grapple plant

Introduction



Devil's claw is a prostrate, sprawling plant with a stout, perennial rootstock with a group of secondary root or storage tubers which grow from the rootstock. The winding annual stems bear greyish green leaves. The flowers are trumpet-shaped and range from dark velvety red or purple to pink. The very distinctive spiny fruits are woody, oval in shape, with flattened capsules containing dark brown or black seeds (National Botanical Research Institute, 2017).

Used Plant Parts

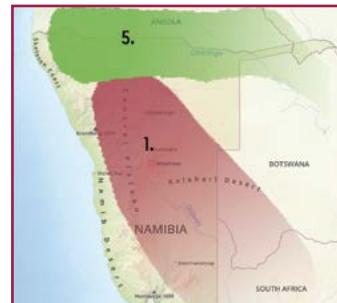


▲ Secondary root tubers

Status — Namibia: protected

Distribution

- 1 : *H. procumbens* ssp.
procumbens ►
5: *H. zeyheri* ssp. *sublobatum*



Traditional use

The San of the Kalahari have used devil's claw for medicinal purposes for centuries. The bitter-tasting tuber was used in stomach ailments and as an infusion for relief of fever, diseases of the blood and as an anti-inflammatory and analgesic agent.

The use of Devil's claw in the treatment for horses, especially racehorses, is widely known. Commercialisation of Devil's claw started in 1950 when tubers were exported to Germany where it was used in the treatment of arthritis and rheumatism. (Cole, 2014).

By then, a small industry based on plant material, mainly harvested in Namibia and Botswana, developed (National Botanical Research Institute, 2017).



Wild Harvesting and sustainable use

Devil's claw is common in Namibia and many rural households earn an income through the harvesting and trade thereof. The Namibian government has created a policy framework which enables communities to benefit from harvesting the plant, encouraging and supporting responsible management of this resource by promoting biodiversity conservation. (Ministry of Environment and Tourism, 2010).

The policy was ratified in 2010.



Devil's Claw

Harpagophytum procumbens, H. zeyheri



Harvesting, processing, trading and export are now part of a permit system which determines a fixed harvest time. (Cole, 2014) (National Botanical Research Institute, 2017). A sustainable harvest of the Devil's Claw model (SHDC) has been established with harvesting and trade organisations, which ensures fair compensation throughout the supply chain as well as sustainable harvest techniques and quality assurance (Cole, 2014).

As part of the BioInnovation Africa project (2020-2022), NANCI has partnered with the Namibia Devils Claw Exporters Association Trust (NDCEAT), Givaudan and Givaudan Trust and the GIZ to establish the GACP Plus or GACP+ standard. The main aim of this private standard is sustainable harvesting and use, traceability and compliance with international access-benefit sharing regulations. While this standard is not legally enforced, Namibian devil's claw products suppliers have committed to comply with it over the next five or so years, commencing in 2023. The GACP+ standard is well aligned with the EMAs and WHOs GACP guidelines as well as the Namibian ABS law and regulations.

Composition and use

Iridoid Glycosides at 0,5-3% found mainly in secondary tubers: harpagosides and harpagide.

- Phenolic Glycosides: Soacteoside, Acteoside and 6-Acetylacteoside.
- Sugars at about 51%: tetrasaccharide stachyose.

Other compounds in small amounts:

- Phytosterols: mainly β -sitosterol, stigmasterol and their glucosides,
- Aromatic Acids: caffeic, cinnamic and chlorogenic acids,
- Flavonoids: kaempferol and luteolin,
- Triterpenes: mainly oleanolic acid, 3β -acetyl-oleanolic acid and ursolic acid,
- Harpagoquinone (EMA, 2015). (Qi, et al., 2006).

Listings and certification

- Ecoso, sole processing company in Namibia: TDS, ECOCERT, EOS & NOP compliant
- The European Pharmacopoeia
- The German Commission E
- The European Scientific Cooperative on Phytotherapy (ESCOP)
- The EU Directive on Traditional Herbal Medicinal Products 2004/24/EC.

Potential for further development

Further potential exists in the diversification of target markets such as supplements, tea, skin care and cosmetics and the pet market (MCA, 2012).

As devil's claw produce originates from a controlled and protected natural resource, various permits and licenses are required to harvest, process and trade with it. Producers and exporters/importers are encouraged to ensure compliance.

Please note, a 2% on value export tariff is applicable for export of unprocessed devil's claw plant material to non-EU markets. For EU markets, a 1% export levy is applicable. Export levies are raised by the Namibian Revenue Authority (NAMRA) upon export.

REFERENCES

Photos: ECOSO Namibia

Cole, D., 2014. Devil's claw (*H. procumbens* & *H. zeyheri*). In: *The commercialisation of indigenous natural plant products in Namibia*. Windhoek: Venture Publications.

EMA, 2015. *Assessment report on Harpagophytum procumbens DC., radix*; s.l.: EMA/HMPC/627058/2015.

MCA, 2012. *Devil's claw value chain analysis*, Windhoek: Millennium Challenge Account.

Ministry of Environment and Tourism, 2010. MET. [Online] <http://www.met.gov.na/files/files/FINAL%20Devil's%20Claw%20Policy.pdf>

National Botanical Research Institute, 2017. <http://www.nbri.org.na/sections/economic-botany/INP/sectors/Devils-claw>. [Online]

Qi, J. et al., 2006. Iridoid glycosides from *Harpagophytum procumbens* D.C. (devil's claw). *Phytochemistry* 67(13), July, pp. 1372-7.

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Devil's Claw - *Harpagophytum procumbens, H. zeyheri*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.91.40
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	N/A	1211.90.92
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.92.90
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.92.90

* Con = containing

INCI

CAS Number:
84988-68-8

HARPAGOPHYTUM PROCUMBENS and HARPAGOPHYTUM ZEYHERI Dried Root

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Devil's Claw - *Harpagophytum procumbens, H. zeyheri*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.70.00
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	N/A	1211.90.86.90
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.00.00
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.00.00

* Con = containing

INCI

CAS Number:

HARPAGOPHYTUM PROCUMBENS and HARPAGOPHYTUM ZEYHERI Dried Root
84988-68-8

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Devil's Claw - *Harpagophytum procumbens, H. zeyheri*

Product	Market	General	HS Code	Import Permit*	Inspection	Excise Duties	HS Code for Exports to China
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.90.97
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	N/A	1211.90.39.91
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.90.99. Other Con* taxinol
							3004.90.90.10-not Con* taxinol
							3004.90.90.20-Con* taxinol
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.90.99

* Con = containing

HARPAGOPHYTUM PROCUMBENS and HARPAGOPHYTUM ZEYHERI Dried Root

INCI

CAS Number:

84988-68-8

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Devil's Claw - *Harpagophytum procumbens, H. zeyheri*

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Chemical extraction Extract	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A
	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	1211.90.86.90
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A
						3004.90.00.00
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A
						3004.90.00.00

* Con = containing

INCI

CAS Number:

HARPGOPHYTUM PROCUMBENS and HARPGOPHYTUM ZEYHERI Dried Root

84988-68-8

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Devil's Claw - *Harpagophytum procumbens, H. zeyheri*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Korea
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.90.39
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	N/A	1211.90.90.99
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.99.00
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.99.00

* Con = containing

INCI

CAS Number:

HARPAGOPHYTUM PROCUMBENS and HARPAGOPHYTUM ZEYHERI Dried Root

84988-68-8

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Product	Market†	HS Code for Exports to					
		General	HS Code	Import Permit	Inspection	Excise Duties	India
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.90
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	N/A	1211.90.99
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.99
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.99

* Con = containing

INCI

CAS Number:
84988-68-8

HARPGOPHYTUM PROCUMBENS and HARPAGOPHYTUM ZEYHERI Dried Root

Devil's Claw

Harpagophytum procumbens, H. zeyheri



Devil's Claw - *Harpagophytum procumbens, H. zeyheri*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.70.10.00
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/ Port Health	N/A	1211.90.86.00.49
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.00.00.00
Ointment	Personal care	3004.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.00.00.00

* Con = containing

INCI

CAS Number:

HARPAGOPHYTUM PROCUMBENS and HARPAGOPHYTUM ZEYHERI Dried Root
84988-68-8



Common Names

English:	Hoodia
Nama / San:	//hoba
German:	Hoodia
Afrikaans:	Ghaap

Introduction



▲ Photo: C. Rowe

A leafless succulent plant with multiple stems. Sharp spines occur in rows on the stems. The large pink to maroon flowers exude a strong smell of rotten meat which attracts flies that facilitate pollination. The fruit are brown, horned pods on short stalks which can contain up to 200 seeds. The brown drop-shaped seeds have a tuft of silky white hair attached to one end that acts as a parachute to aid in wind dispersal when the seed pod splits open. Among the 10 Hoodia species occurring in Namibia, *H. gordonii* is cultivated for commercial use (MCA, 2014) (NBRI, 2014).

Traditional knowledge and use

Earlier inhabitants in the arid regions of Southern Africa used Hoodia to quench hunger and thirst (MCA, 2014).

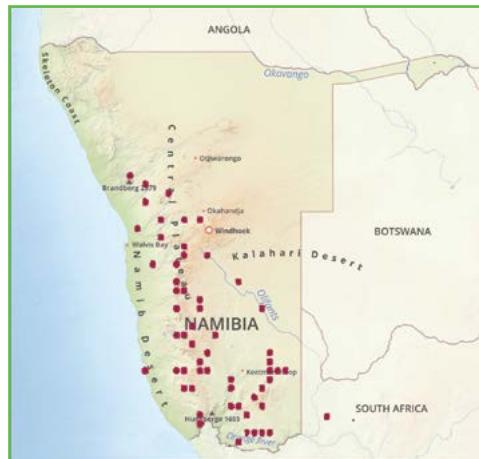
Powder and extracts made from dried Hoodia stems are used in skin-conditioning cosmetic

products as well as health products that promote weight loss, control diabetes and act against high blood pressure and gout.

INCI: HOODIA GORDONII EXTRACT

Status - Namibia: protected; CITES: II; near-endemic, indigenous

Distribution



◀ (Irish,
2018)

Cultivation and Harvesting

Uncontrolled wild harvesting almost led to the depletion of the natural growing population during the initial stages of development as an appetite suppressant. Hoodia was then placed on CITES II in 2005 (MCA, 2014). A permit issued in the country of origin is needed to cultivate and trade Hoodia. *H. gordonii* is cultivated successfully for commercial use in the southern parts of Namibia. The succulent stems are harvested, sliced and dried for further processing.

General market and trade information

Hoodia gordonii is widely marketed as a commercial appetite suppressant. Although the Hoodia is imported and exported in many forms, the hoodia extract is the most popular form of export mainly to the following regions: North America, Latin America, Western Europe, Eastern Europe, Asia Pacific, MEA and Japan. Among these regions, North America and Latin



Hoodia gordonii

America are expected to have significant market share globally as it is the largest consumer for Hoodia extract, followed by WE, EE, APEJ. Japan is projected to rise steadily in the forecasted period. To prevent its exploitation, the genus enjoys protection both locally under the Nature Conservation Ordinance of 1975, and under Appendix II of the Convention on International Trade in Endangered Species (CITES) (Indigenous plant products in Namibia, 2014, p. 110)

Non-tariff trade information

An illegal or black market in Hoodia has grown rapidly in the past years, resulting in the extinction of the plant in many areas.

Patent issues (rights) are not existent and need to be resolved.

CBD member states are now required to devise and implement a mechanism or regime that will prevent the scale of biopirated products within their jurisdiction (Due to "unauthorised access and use of genetic resources" that is being perpetrated by these "free riders" on the Hoodia train.)

Only ten of the stems may be harvested or 25% of a plant that is larger than 40cm in diameter could be harvested, only on the southern side (down wide) near ground level.

Harvesting will only be considered on sites where an excess of 2 500 plants is available. These plants need to be in a good condition and of optimal size.

- 4 x 250m / 1km line transect (optimum potential resource)
- Line transect vs plot data (should be comparative)
- Harvest every 2nd to 4th plant (5cm above ground level)

Tariff trade information

Before shipping Hoodia to Australia, a

CITES import permit (Issued in Australia only by the department of the Environment and Water Resources) together with a matching CITES Export permit (Issued by the CITES Management) must be presented.

Authority in the one country of export or re-export) must be obtained.

Permits for commercial and personal use are issued on a case-by-case basis, taking into consideration the quantity being imported.

Country of origin, as the succulents being exported from a country may be grown in the wild. Wild plants are banned from exports.

Hoodia plant log 2.00% Hoodia, sliced and dried 1.00% Chemicals extraction 0.25% Pharmaceutical and other products from Hoodia 0.00%.

VAT issues and any other import regulations that need to be considered upon reimport of processed plant materials.

Evaluation and Authorisation of Chemicals (REACH) and the Health and Safety at Work Act.

Please note, a 2% on value export tariff is applicable for export of unprocessed Hoodia plant materials to non-EU markets. For EU markets, a 1% export levy is applicable. Export levies are raised by the Namibian Revenue Authority (NAMRA) upon export.

REFERENCES

Irish, J., 2018. *Namibia Biodiversity Database Website: Hoodia gordonii*. [Online] [Accessed Nov 2019].

MCA, 2014. Hoodia (H. gordonii). In: *The commercialisation of indigenous natural plant products in Namibia*. Windhoek: Venture Publications.

NBRI, 2014. <http://www.nbri.org.na/sections/economic-botany/INP/sectors/Hoodia>. [Online] [Accessed Nov 2019].

Venture Publication. (2014). *The Commercialisation of Indigenous plant products in Namibia*. Windhoek: Available on <http://the-eis.com/elibrary/sites/default/files/downloads/literature/Indigenous%20Plant%20Products%20in%20Namibia.pdf> [Accessed on 16 Nov 2021].



Hoodia gordonii

Hoodia - Hoodia gordonii		HS Code for Exports to USA				
Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health	N/A
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	1211.90.92

* Con = containing
INCI
CAS Number:
HOODIA GORDONII EXTRACT
938077-10-2



Hoodia gordonii

Hoodia - Hoodia gordonii

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health	N/A
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A

* Con = containing

INCI HOODIA GORDONII EXTRACT

CAS Number:

938077-10-2



Hoodia gordonii

Hoodia - <i>Hoodia gordonii</i>						
Product	Market	HS Code for Exports to China				
		General	HS Code	Import Permit	Inspection	Excise Duties
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health	N/A
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A
						3004.90.90.99-Other taxinol
						3004.90.90.10-not Con* taxinol
						3004.90.90.20-Con* taxinol

* Con = containing

INCI

CAS Number:
938077-10-2

HOODIA GORDONII EXTRACT



Hoodia - <i>Hoodia gordonii</i>		HS Code for Exports to EU				
Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties
Chemical extraction Extract	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A
	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health	N/A
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A

* Con = containing

INCI HOODIA GORDONII EXTRACT

CAS Number:
938077-10-2



Hoodia gordonii

Hoodia - <i>Hoodia gordonii</i>					
Product	Market	General	HS Code	Import Permit	Inspection
					Excise Duties
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A

* Con = containing

INCI

CAS Number:

HOODIA GORDONII EXTRACT

938077-10-2



Hoodia - *Hoodia gordonii*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to India
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A	1302.19.90
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health	N/A	1211.90.99
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A	3004.90.99

* Con = containing

INCI

CAS Number:

HOODIA GORDONII EXTRACT

938077-10-2



Hoodia gordonii

Hoodia - <i>Hoodia gordonii</i>						HS Code for Exports to Turkey
Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties
Chemical extraction	Pharmaceuticals	1302.19.90	1302.19.90.9	Plant Health/CITES	N/A	N/A
Extract	Pharmaceuticals	1211.90.80	1211.90.80.8	Plant Health/CITES	Plant Health/Port Health	N/A
Capsules/tablets	Pharmacy	3304.90.99	3004.90.99.7	Dept. of Health	N/A	N/A

* Con = containing

INCI HOODIA GORDONII EXTRACT

CAS Number: 938077-10-2

Kalahari Melon

Citrullus lanatus



Common Names

Oshindonga:	Oontanga & Etanga lyomungongo
Oshikwanyama:	Eenhanga & Etanga lomungongo
Kwangali:	Matanga
German:	Wassermelone, Tsamma
Afrikaans:	Waattlemoen, Tsamma
Otjiherero:	Etanga
San:	//Khontsamab, Tamah

Introduction



▲ Photo: PROTA

An annual herb with prostrate or climbing stems up to 10 m long with large lobed and hairy leaves. The small yellow flowers are unisexual and occur on the same plant. The fruit are smooth and up to 20 cm long, greenish with darker mottling.

Traditional knowledge and used plant parts

A long history of traditional use of *C. lanatus* as food and source of cosmetic oil exists in the northern regions of Namibia. Melon seeds are stored for times of famine as energy and protein source (Schall, 2003). The seed oil is widely used as skin conditioner and massage oil and to a lesser extent as food and medicinal oil. Traditional seed oil extraction methods are based on roasting and boiling the seeds which gives a strong

flavour to the oil. The oil cake is used as food supplement or animal feed.

Habitat and Distribution

C. lanatus occurs widely in Namibia. The Kalahari is considered the centre of diversity for this species which is also the progenitor of modern sweet watermelon varieties (Maggs, 1998).



◀ (Irish, 2018).



Cultivation

C. lanatus is produced as a secondary crop in staple food crop plantings such as pearl millet in the north-central regions of Namibia.

The crop is managed minimally and is entirely dependent on rainfall (Carr & Mallet, 2008). A large variety of landraces is maintained among producers for different uses of the melons and seeds (Maggs-Koelling, 2000).

Harvesting and Processing

The melons are harvested when the plant leaves die off and are then left in protected places until the harvest of the main crop is completed. Seeds are extracted at the processing site from the wet melons by pounding and washing (Carr & Mallet, 2008).

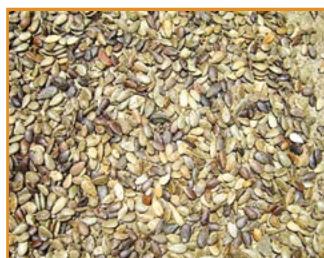


Kalahari Melon

Citrullus lanatus



Kalahari
Melon Seeds
extracted
and dried.



KMS
pre-cleaning
machine
designed by
CRIA SA-DC
and manu-
factured at
Katutura Ar-
tisans Project
in Windhoek.



▲ Cold-pressed KMS oil

Documentation available

MSDS: Eudafano Women Co-operative Ltd

Cosmetics Products Notification EU: Namib
Desert Oils

INCI: CITRULLUS LANATUS SEED OIL

REFERENCES

- Carr, S. & Mallet, M., 2008. *Project Duras Case Study: Kalahari Melon Seed Oil*, s.l.: s.n.
- Irish, J., 2018. *Namibia Biodiversity Database Website: Citrullus lanatus*. [Online] [Accessed Nov 2019].
- Kangandjo, M. K., 2016. *Eudafano Women's Cooperative: Braking new ground for biodiversity based products*. Cancun Mexico, s.n.
- Maggs, G., 1998. Yield and agronomic potential of *Citrillus lanatus* landraces in Namibia. In: *Genetic resources and agricultural potential of indigenous Cucurbitaceae in Namibia*. Windhoek: s.n., pp. 179-199.
- Maggs-Koelling, G. M. S. C. J., 2000. A phenetic analysis of morphological variation on *Citrillus lanatus* in Namibia. *Genetic Resources and Crop Evaluation*, pp. 385-393.
- Schall, F., 2003. *Wild melon in North central Namibia: Cultivation, Processing, Traditions, Markets*, Windhoek: CRIA SA-DC.
- VenkatachalamLogaraj, T., 2011. Chapter 136 - Watermelon (*Citrullus lanatus* Seed Oils and Their Use in Health. *Nuts and Seeds in Health and Disease Prevention*, pp. 1149-1157.

The Eudafano Women Co-operative Ltd in northern Namibia is the largest processing plant for KMS in southern Africa (Kangandjo, 2016). A traceability system for the seeds, harvested and delivered mostly by women, has been established. Unlike the traditional extraction method, the commercial seed oils are cold-extracted mechanically. Production standards to facilitate export of the valuable virgin oils have been developed.

Composition and use

Kalahari melon seed oils are composed chiefly of unsaturated fatty acids such as oleic and linoleic acid, along with saturated fatty acids like palmitic and stearic acid. The abundance of saturated fatty acids and u-6 poly-unsaturated fatty acids meets the requirement for cosmetic and therapeutic oil.



Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.25.01
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.30.00- Con* Alcohol
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.50.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INC: CITRULLUS LANATUS SEED OIL

CAS Number: 871582-63-7 If "organic" then import certificate is required

Customs Duties: 0% AGOA Rules of Origin: As per AGOA

Taxes Import Requirements: EPA Prohibition (CITES certificate may be required)



Kalahari Melon - Citrullus lanatus

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.90
Perfume	Personal care	3303.00.90					3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

CAS Number: 871582-63-7

Customs Duties: 0% AGOA

Taxes: Import Requirements: EPA Prohibition (CITES certificate may be required)

INCI: CITRULLUS LANATUS SEED OIL

If "organic" then import certificate is required

Rules of Origin: As per AGOA



Kalahari Melon - *Citrullus lanatus*

Product	Market	General	HS Code	Import Permit	Inspec-tion	Excise Duties	HS Code for Exports to China
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.99.99
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	1515.90.80.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.29
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.10
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.90
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.90.-Solid
		3401.30.Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.39-other packing
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99- other packing otherwise labelled

* Con = containing

CAS Number: 871582-63-7

Customs Duties: 0% AGOA

Taxes: Import Requirements: EPA Prohibition (CITES certificate may be required)

INCI: CITRULLUS LANATUS SEED OIL

If "organic" then import certificate is required

Rules of Origin: As per AGOA



Kalahari Melon - *Citrullus lanatus*

Product	Market	General	HS code	Import Permit	Inspection	Excise Duties	HS Code for Exports to EU
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

CAS Number: 871582-63-7
Customs Duties: 0% AGOA

Taxes: Import Requirements: EPA Prohibition (CITES certificate may be required)
INCI: CITRULLUS LANATUS SEED OIL
If "organic" then import certificate is required

Rules of Origin: As per AGOA



Product	Market	HS Code for Exports to					
		General	HS Code	Import Permit	Inspection	Excise Duties	Korea
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.50.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.10.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.10.90-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

CAS Number: 871582-63-7

Customs Duties: 0% AGOA

Taxes: Import Requirements: EPA Prohibition (CITES certificate may be required)

INCI: CITRULLUS LANATUS SEED OIL

If "organic" then import certificate is required

Rules of Origin: As per AGOA

Kalahari Melon

Citrullus lanatus



Kalahari Melon - *Citrullus lanatus*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.91
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.90
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.41/49
Perfume	Personal care	3303.00.90					3303.00.40- not Con* Spirit
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.90
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.10- Con* Spirit
Soap	Personal care	3401.19- Solid 3401.30-Liquid	3401.11.00.7 3401.20.00.5	N/A	Port Health	N/A	3305.10.90-Other
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3401.19.19- Solid 3401.30.19- Liquid
		3304.99.30- Sun pro- tection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.30- moistur- ising lotion 3304.99.10- Face cream
							3304.99.90- other

* Con = containing

CAS Number: 871582-63-7

Customs Duties: 0% AGOA

Rules of Origin: As per AGOA
Taxes: Import Requirements: EPA Prohibition (CITES certificate may be required)

INCI: CITRULLUS LANATUS SEED OIL

If "organic" then import certificate is required



Citrullus lanatus

Product	Market						HS Code for Exports to Turkey
		General	HS Code	Import Permit	Inspection	Excise Duties	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.91.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.00.19
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00.00
Perfume	Personal care	3303.00.90					3303.00.10.00.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.90.13
Shampoo/Conditioner	Personal care	3305.10.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.90.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

CAS Number: 871582-63-7

Customs Duties: 0% AGOA

Taxes: Import Requirements: EPA Prohibition (CITES certificate may be required)
Rules of Origin: As per AGOA

INCI: CITRULLUS LANATUS SEED OIL

If "organic" then import certificate is required

Kigelia africana

Common Names

English:	Sausage Tree
Silozi:	Mupolota
Kavango:	Vunguvungu
German:	Wurstbaum
Afrikaans:	Worsboom

Introduction



▲ (Arnold, 2017)

A semi-deciduous tree with a height of up to 18 metres and a crown which can reach a width of 20 metres. The tree has large leaves which are shiny and dark green in colour. The flowers are dark red and appear in a hanging bunch. The grey-brown sausage-shaped fruit is attached to long stalks. The fruit is at times 80 cm long and can weigh up to 9 kg. The tree bears fruit between December and June (Curtis & Mannheimer, 2005).

Traditional knowledge

A bright yellow dye can be yielded from the roots of the *K. africana*. Although fresh fruit cannot be eaten as they cause blisters, traditional remedies prepared from crushed, fresh or dried fruit are used to treat ulcers, sores and syphilis and some kinds of skin cancer (Van Wyk & Gericke, 2007). Tea from the fruit pulp is used to treat rheumatism and dysentery. Roasted seeds are edible and used to flavour beer and aid in its fermentation (Curtis

& Mannheimer, 2005). The juice of Kigelia fruit is traditionally used for skin tightening and is still used for this purpose in today's cosmetics industry.

Kigelia Africana or Kigelia pinnata grows throughout Africa and derives its name from the rare 'sausage' shaped fruit. Africa's native people have been using Kigelia fruit for medicinal and cosmetic purposes for many years. The Tonga women of Africa who live near Zambezi Valley use Kigelia extract for the cosmetic purpose which in turn gives them an assurance of blemish-free complexion. Kigelia extract is also used as active ingredient in skin tightening and breast firming formulations. It acts as a moisturiser which provides protection to sensitive skins. ((TMR), p. 1). It is a multipurpose medicinal plant with many qualities and considerable abundance

Status IUCN: least concern

Distribution

K. africana occurs on floodplains and along riverbanks, always in woodlands and only occasionally on sandy plains. It also grows well in drier areas.



Composition and use

The fruit extract shows antibacterial and anti-inflammatory activity, which can be attributed to quinones and coumarins (Van Wyk & Gericke, 2007). Iridoids, napthaquinones and phenylpropanoids reduce inflammation and calm the skin after sun exposure. Skin collagen and elastin production is supported by saponosides and flavonoids. Luteolin, caffeic and ferulic acids have anti-ageing effects on skin

Kigelia africana

(PhytoTrade Africa, n.d.). Other components found in fruit are, amongst others, kigelin, desmethylkigelin, kigelinon and kigelinol (Arnold, 2017).

General market and trade information

Increasing population, rising awareness among consumers about benefits associated with the Kigelia, growing health consciousness and aspiration for skin and personal care products are the factors expected to fuel the growth of Kigelia extract (The Market Research, p. 1). There is a relative big international trade market for Kigelia Africana, especially that of the liquid extract, which is expected to witness relatively higher share in the global Kigelia extract market ((TMR), n.d., p. 2).

Specific HS Codes are yet to be assigned to the product. The common Harmonised System (HS) codes are considered the best fit, as per market requirements (see annexures).

Non-tariff trade information

Even though sustainability is not endangered by over-harvesting of the fruits, the trees are endangered by human influences in terms of wildfires, timber use and woodland destruction.

Trade between Namibia (or SACU) with the rest of the world: African producers face competition from various cultivated sources. The tree is easily cultivated and tolerates temperatures ranging from 4-40° C. Consequently, it grows in various countries around the world, including Australia, the USA and parts of Southeast Asia.



REFERENCES

- Arnold, W., 2017. *Heilpflanzenlexikon CH*. [Online] Available at: https://www.awl.ch/heilpflanzen/kigelia_africana/leberwurstbaum.htm [Accessed 2 Nov 2019].
- Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.
- Irish, J., 2018. *Namibia Biodiversity Database*. [Online] [Accessed Nov 2019].
- PhytoTrade Africa, n.d. *Anti inflammatory and other effects of Kigelia africana extracts*. s.l.:s.n.
- Van Wyk, B. & Gericke, N., 2007. *People's Plants A Guide to useful plants of southern Africa*. s.l.:s.n.
- Transparency Market Research. Kigelia Global Market, s.l.: The Market Research report. [Online] Available at <https://www.transparencymarketresearch.com/kigelia-extract-market.html> [Accessed 16 Nov 2021]
- European Commission. Access2Markets. [Online] Available at: https://trade.ec.europa.eu/access-to-markets/en/barriers/details?barrier_id=11040&sps=false [Accessed 16 Nov 2021]

Kigelia africana

Kigelia - Kigelia africana

Product	Market	HS Code for Exports to USA					
		General	HS Code	Import Permit	Inspection	Excise Duties	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.25.01
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.30.00- Con* Alcohol
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.50.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5

Kigelia africana

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A
Perfume	Personal care	3303.00.90				3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5

Kigelia africana

Product	Market	HS Code for Exports to					
		General	HS Code	Import Permit	Inspection	Excise Duties	China
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.99.99
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	1515.90.80.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.29
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.00.10
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.90
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.90.Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5

Kigelia africana

Kigelia - <i>Kigelia africana</i>		Market					HS Code for Exports to	
Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	EU	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90	
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00	
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.90	
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00	
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00	
Perfume	Personal care	3303.00.90					3303.00.10.00	
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00	
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00	
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid	
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid	

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5

Kigelia africana

Kigelia - Kigelia africana						
Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	3808.50.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.10.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90				3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30.Liquid	3401.20.00.5	N/A	Port Health	N/A

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5

Kigelia - Kigelia africana

Product	Market	HS Code for Exports to					
		General	HS Code	Import Permit	Inspection	Excise Duties	India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.91
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.90
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.41/49
Perfume	Personal care	3303.00.90					3303.00.40- not Con* Spirit
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.90
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.10- Con* Spirit
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.19- Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.19- Liquid

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5

Kigelia - Kigelia africana

Product	Market					HS Code for Exports to Turkey
		General	HS Code	Import Permit	Inspection	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	1211.90.86.00.49
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	N/A
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00.00
Perfume	Personal care	3303.00.90				3303.00.10.00.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3304.99.00.90.13
						3305.10.00.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	3401.11.00.90.00-Solid
						3401.30.00.00.00-Liquid

* Con = containing

INCI: KIGELIA AFRICANA Fruit Extract

CAS Number: 223749-33-5



Common Names

Silozi, Kwangali,	
Tswana:	Mungongo
Oshiwambo:	Omunkete / Omunghete
Setswana, Rukongwali:	
Otjherero:	Mongongo
Kung:	Omungele //Xa
German:	Manketti
Afrikaans:	Manghetti

Introduction



A large deciduous tree with a round spreading crown and yellowish-grey smooth bark often peeling into papery strips. The compound leaves are dark green with a fine woolly covering on the underside. The flowers are yellow and unisexual. The oval fruit is brownish when dry and contains nutlike seeds that are enclosed in a hard shell (Curtis & Mannheimer, 2005).

During 2021 and 2022, a national resource assessment was conducted as a cooperation between the National Botanical Research Institute (NBRI), the GIZ and the Eberswalde University for Sustainable Development (Germany). The main aim of this research was to match occurrence and potential sustainable use, considering traditional and commercial use. Results of the research will likely be available as part of the Biolnnovation Africa and the ABIOSA projects respectively, 2023-2026.

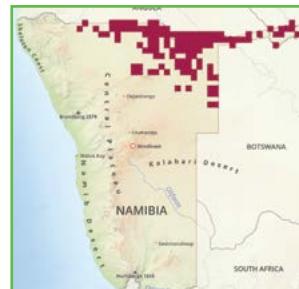
Traditional knowledge and use

The fruit pulp and nuts have long been used as food by the San people of northern Namibia. Manketti oil and oil cake is still used today as 'drought food' in the Kavango and Ohangwena regions of Namibia. The nuts have a pleasant taste and can be stored for most of the year. The seed oil is used as body rub and skin moisturiser.

Status Namibia: protected

Distribution

S. rautanenii occurs mostly in the Kalahari woodlands in sandy soil and along rivers. (Irish, 2018). It thrives in high temperatures and can occur abundantly within a radius of several kilometres.



Composition and use

The yellow oil contains, among linoleic and oleic acid, the unique conjugated fatty acid α -eleostearic acid. The oil is a highly valued emollient that hydrates, nourishes and protects the skin from ultraviolet radiation and is therefore widely used as a cream, lotion and ointment (Mohammad & Mahmood, 2005). Mongongo oil is also valued for its use in cosmetic hair treatments (Mallet, et al., 2015).



Manketti fruit pulp is receiving considerable commercial interest. Research is under way to establish its dossier

INCI: MONGONGO SEED OIL

REFERENCES

- Photos: Namibia SME Portal Site
Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.
Irish, J., 2018. *Namibia Biodiversity Database Web Site*. [Online] [Accessed Nov 2019].
Mallet, M., Cole, D. & Davis, A., 2015. *Establishing the status quo of and developing a strategic framework for further work on S. rautanenii (Manketti) in Namibia*, s.l.: GIZ.
Mohammad, A. & Mahmood, N., 2005. Taxonomic perspective of plant species yielding vegetable oils used in cosmetics and skin care products. *Afr. J. Biotechnol.*, April, p. 36–44.



Schinziophyton rautanenii

Manketti - *Schinziophyton rautanenii*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	12.11.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Ointment	Personal care	3004.90.99					3004.90.92.90
Shampoo/conditioner	Personal care	3305.10.00	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Lip balm	Personal care	3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Eye cream	Personal care	3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5%	3304.10.00.00
		3304.10.90-other	3304.10.90.5	Port Health	N/A	7%	
		3304.20.90	3304.20.90.0	Port Health	N/A	7%	3304.20.00.00

¹Packaging labelled with vegetable ingredients of endangered species

²Packaging labelled with content of vegetable ingredients of endangered species

³Packaging with content by number of pieces of vegetable ingredients of endangered species

* Con = containing

INCI: MONGONGO SEED OIL

CAS Number: 68956-68-3



Schinziophyton rautanenii

Manketti - *Schinziophyton rautanenii*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Ointment	Personal care	3004.90.99					3004.90.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Lip balm	Personal care	3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5%	3304.10.00.00
		3304.10.90-other	3304.10.90.5	Port Health	N/A	7%	
Eye cream	Personal care	3304.20.90	3304.20.90.0	Port Health	N/A	7%	3304.20.00.00
¹ Packaging labelled with vegetable ingredients of endangered species							
² Packaging labelled with content of vegetable ingredients of endangered species							
³ Packaging with content by number of pieces of vegetable ingredients of endangered species							

* Con = containing

INCI: MONGONGO SEED OIL

CAS Number: 68956-68-3



Schinziophyton rautanenii

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.99.99
Ointment	Personal care	3004.90.99				3004.90.90.99
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.90
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7% 3304.90.00.39 - other packing
		3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5% 3304.99.00.99 - other packing otherwise labelled
Lip balm	Personal care	3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5% 3304.10.00.10
		3304.10.90 -other	3304.10.90.5	Port Health	N/A	
Eye cream	Personal care	3304.20.90	3304.20.90.0	Port Health	N/A	7% 3304.20.00.11 - Packaging... ¹
						3304.20.00.12 - Packaging... ²
						3304.20.00.13 - Packaging... ³

¹Packaging labelled with vegetable ingredients of endangered species

²Packaging labelled with content of vegetable ingredients of endangered species

³Packaging with content by number of pieces of vegetable ingredients of endangered species

* Con = containing

INCI: MONGONGO SEED OIL

CAS Number: 68956-68-3



Schinziophyton rautanenii

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.41.00
Ointment	Personal care	3004.90.99				3004.90.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.00
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7% 3304.99.00.00
		3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%
Lip balm	Personal care	3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5% 3304.10.00.00
		3304.10.90 - other	3304.10.90.5	Port Health	N/A	7%
Eye cream	Personal care	3304.20.90	3304.20.90.0	Port Health	N/A	7% 3304.20.00.00
¹ Packaging labelled with vegetable ingredients of endangered species						
² Packaging labelled with content of vegetable ingredients of endangered species						
³ Packaging with content by number of pieces of vegetable ingredients of endangered species						

* Con = containing

INC: MONGONGO SEED Oil

CAS Number: 68956-68-3



Schinziophyton rautanenii

Product	Market	HS Code for Exports to Korea					
		General	HS Code	Import Permit	Inspection	Excise Duties	Korea
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90.00
Ointment	Personal care	3004.90.99					3004.90.99.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
		3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Lip balm	Personal care	3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5%	3304.99.10.00
		3304.10.90-other	3304.10.90.5	Port Health	N/A	7%	
Eye cream	Personal care	3304.20.90	3304.20.90.0	Port Health	N/A	7%	3304.20.10.00

¹Packaging labelled with vegetable ingredients of endangered species

²Packaging labelled with content of vegetable ingredients of endangered species

³Packaging with content by number of poeces of vegetable ingredients of endangered species

* Con = containing

INCI: MONGONGO SEED OIL

CAS Number: 68956-68-3



Schinziophyton rautanenii

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.99	
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90	
Ointment	Personal care	3004.90.99				3004.90.99	
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.10. Con* Spirit	
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.30 - moisturising lotion
Lip balm	Personal care	3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.10 - Face cream
		3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5%	3304.10
		3304.10.90-other	3304.10.90.5	Port Health	N/A	7%	
Eye cream	Personal care	3304.20.90	3304.20.90.0	Port Health	N/A	7%	3304.20

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²Packaging labelled with content of vegetable ingredients of endangered species

³Packaging with content by number of pieces of vegetable ingredients of endangered species

* Con = containing

INCI: MONGONGO SEED OIL

CAS Number: 68956-68-3



Schinziophyton rautanenii

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	1211.90.86.00.49
Ointment	Personal care	3004.90.99				3301.29.91.90.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3004.90.00.00.00
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	3305.10.00.00.00
Lip balm	Personal care	3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	3304.99.00.90.13
		3304.10.90 with SPF of 15 or more	3304.10.20.4	Port Health	N/A	5%
		3304.10.90-other	3304.10.90.5	Port Health	N/A	3304.10.00.90.00
Eye cream	Personal care	3304.20.90	3304.20.90.0	Port Health	N/A	7%
						3304.20.00.00.00
¹ Packaging labelled with vegetable ingredients of endangered species						
² Packaging labelled with content of vegetable ingredients of endangered species						
³ Packaging with content by number of poeces of vegetable ingredients of endangered species						

* Con = containing

INCI: MONGONGO SEED OIL

CAS Number: 68956-68-3

Sclerocarya birrea

Common Names

Oshiwambo:	Omugongo / Omwoongo
Silozi:	Malula
Kavango,	
Tswana:	Uwongo
San:	Kaqe
German:	Marulabaum
Afrikaans:	Maroela

Introduction



▲ Photo: Gondwana Collection

A large deciduous and dioecious tree with a dense spreading crown. The female tree bears up to 500 kg of fruit per year. The almost round golf ball sized fruit contain a green to yellow scented fruit pulp which surrounds a pip containing two to three fruit kernels (Curtis & Mannheimer, 2005).

The Marula tree contains oil-rich seed nuts which are processed into marula oil. Traditionally the oil from the marula trees was used as a food source by the Oshivambo people, as the food oil complements well with traditional recipes such as indigenous chicken and fresh and dry spinach. Marula oil has become a popular ingredient for skin and hair care products. It is easily absorbed by the skin. It contains high proportions of oleic acid and linoleic fatty acid, making it ideal for tropical application. (litula; Kapenda; 2011, p. 12)

Traditional knowledge

The oil-rich seed nuts are used to process marula oil. Traditionally the kernel oil from the marula trees was used as a food source by the Oshivambo people, as the food oil complements well with traditional recipes such as indigenous chicken and fresh and dry spinach. Hence the marula fruit is of important traditional, social, economic and nutritional significance. The marula season is a time of festivities, and it supports

a wide range of industries and services based on traditional knowledge (Mallet & den Adel-Sheehama, 2014).

◀ Marula fruit (Photo: NBRJ)

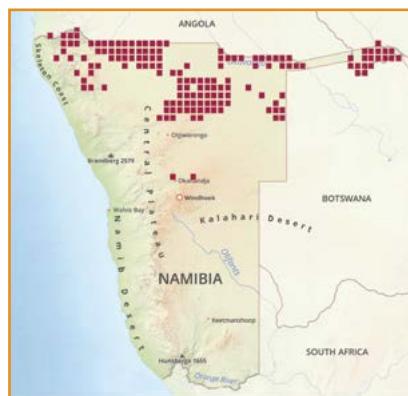
Status Namibia: protected

Distribution

(Irish, 2018) ▶

Marula commonly occurs in sandy and clay soils, but is also found in gravel or rocky soil. The soil, however,

needs to be well-drained. Marula trees are found in the central north of Namibia where humans have settled close by. Marula trees grow in the high lying areas of the Cuvelai system where the soil is fertile and outside the reach of the floodwaters of the Oshanas (den Adel, 2011).



◀ Decortication of Marula kernels
Photo: CRIAA SA-DC



Sclerocarya birrea

Harvesting and sustainable use

The use of the Marula originates from traditional law and customs as far as harvesting of the fruit is concerned. Homesteads are often found close to the Marula trees where ownership is taken by individual households. It is mostly the women who tend to the marula trees. They are also involved in the trading process (MCA Namibia, 2012).



▲ Photo: D. Honsbein

In the late 1990s, a supply chain

and processing plant was initiated for the utilisation of the fruit harvested in the central north of Namibia. Today, the Eudafano Women Co-operative is one of the key role players in the Namibian supply chain of Marula. The Marula resource base is stable and various roleplayers have initiated its improvement through seedling protection and grafting techniques (Mallet & den Adel-Sheehama, 2014). Marula has been one of the first African natural ingredients for which access and benefit sharing agreements between the traditional knowledge holders, who are also the primary producers, and the oil processors have been reached (Ngithila, et al., 2010).

Production

Marula fruit is processed by separating the fruit pulp from the pips. The pips are left to dry before the kernels are decorticated. Oil is then extracted from the kernels. The oil extraction process typically uses cold pressing and filtration. The oil is clear and of light yellow/golden colour. Further processing of the crude oil for use as cosmetics is undertaken by European companies (MCA Namibia, 2012).

Composition and use

The oil, which is extracted from the kernels, is composed of a large proportion of the mono-unsaturated fatty acid oleic acid (70-

78%) and natural antioxidants. It also contains the saturated acids palmitic (9-12%), stearic and palmitoleic acids as well as polyunsaturated acids Omega 6-linoleic acid and (4-7%) Omega 9-oleic acid.



▲ Uwanawa range Photo: CRIAA SA-DC

Marula oil contains similar fatty acid composition to olive oil, however, it is 10 times more stable to oxidation. The exceptional chemical stability of marula oil is due to its natural antioxidant composition of tocopherol, phenolic compounds and flavonoids, which makes it an excellent ingredient for cosmetic products. It has a non-greasy texture and also non-comedogenic properties (MCA Namibia, 2012). Marula kernel oil is easily absorbed by the skin and improves skin hydration, smoothness and reduces redness (Mallet & den Adel-Sheehama, 2014).

Composition and use

Toxicity tests - The composition in the marula fruit changes as the fruit ripens, and these changes differ in the fruit pulp and the skin of the fruit. Some of these compounds may be toxic when used in large amounts and will need checking against toxicity databases to determine volumes for safe use.

CAS 68956-68-3 (generic number for all vegetable oils)

HS Vegetable oil: 151590

INCI SCLEROCLARYA BIRREA Seed Oil

Namib Desert Jojoba CC: EU CPNP; NOP; EOS

General market information

There is an increasing adoption of natural ingredients into cosmetics which ensures marula oil market access through to 2029. (Persistent Market Research, 2019). The demand for marula oil is increasing continuously and the demand-supply span increases the trend reversal for marula as the demand in the EU and global market increases.

Sclerocarya birrea

Namibian cosmetic companies produce high end personal care products using marula oil, which are already exported to the EU, UK and EFTA (www.nanci.biz). Most of the marula produce is exported as virgin oil for cosmetic product applications to the EU, UK and the USA (www.nanci.biz).

Products containing marula oil are available in various retail outlets in Namibia and/or South Africa. (Nicky litula, Kapenda Sakeus 2011, p. 29).

Although the international trade for Namibian marula has been in place since independence and is increasing, it has not been fully recognised. There are no tariff codes specifically citing marula. The general Harmonised System (HS) codes are most used.

Non-tariff trade information

Producers need to comply with iProducers need to comply with international regulations concerned with consumer food safety. Producers need to supply evidence of sustainably safe and hygienic manufacturing as well as local standards and testing infrastructure. Decisions need to be made about the best route to the market, and which regulations need to be navigated and complied with.

Securing access to new international food and ingredient markets is an expensive and complex process not previously attempted by the marula sector.

A standard for quality and reliability for marula oil as a food ingredient was lacking. Issues with inconsistency in product specifications also exist in the cosmetics industry. The profile of the different marula products is to be clarified. Standards need to fit their purpose, and should be developed by producers and aligned with market needs. As marula is a sub-Saharan natural resource, Namibian producers have linked up with those producers and users of marula oil in Botswana and South Africa. As of November 2022, the South African Bureau of Standards (SABS) has developed

a marula oil standard which is currently under review. Although a South African standard, this standard will likely be used across the sub-region. The standard will be in force as from 2023.

Another research project on marula native oil has commenced in 2022. The main aim of the research is to establish a database on marula oil from sub-Saharan Africa, to be known as the b-TAF* database. This database would be similar to the *codex alimentarius* database for common food oils like olive and sunflower oil. The project is funded by ABIOSA, and runs from November 2022 to October 2025. Southern African producers of marula and baobab oils are invited to participate.

*b-TAF = botanicals Trusted and Authenticated Fingerprinting

REFERENCES

- Botelle, A., 2001. *A history of Marula use in North-Central Namibia*, Namibia: CRIAA SA-DC.
- Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.
- den Adel, S., 2011. *Review of existing information and data on the Marula (Sclerocarya birrea) resource in Namibia*, Windhoek: National Forest Programme Facility.
- Irish, J., 2018. *Namibia Biodiversity Database Website: Sclerocarya birrea*. [Online] [Accessed Nov 2019].
- Mallet, M. & den Adel-Sheehama, S., 2014. Lipid oils: Marula (Sclerocarya birrea). In: *The commercialisation of indigenous natural plant products in Namibia*. Windhoek: Venture Publications.
- MCA Namibia, 2012. *Marula Oil value chain analysis Final report*, Windhoek: MCA Namibia.
- Ngithila, T. et al., 2010. *Sharing the benefits of nature: legitimate access to Namibia's biological and genetic resources for scientific and commercial purposes*. 2nd ed. Windhoek: Interim Bio-prospecting Committee MET GRN.
- Nicky litula, M. S. (2011). *REPORT ON THE SURVEY FOR INDIGENOUS NATURAL (INPs) SUPPLY CHAIN MANAGEMENT*. Windhoek: Ministry of Trade and Industry (MTI). Online [Accessed 16 Nov 2021].
- ABioSA project .., A. C. (2020, April). MARULA TECHNICAL BRIEF: MARKET ACCESS. Retrieved from The United Nations Conference on Trade and Development : <https://unctad.org/system/files/official-document/ditc-ted-05052020-BioTradeSSC-Marula.pdf> [Accessed 16 Nov 2021].
- Persistent Market Research. (2019, SEPTEMBER 18). Retrieved from GlobeNewswire: <https://www.globenewswire.com/en/news-release/2019/09/18/1917437/0/en/Marula-Oil-Market-is-anticipated-to-reach-US-60-Mn-by-2029-Persistence-Market-Research.html> Online [Accessed 16 Nov 2021].
- South African Bureau of Standards. November 2022. <https://www.sabs.co.za/Standards-Development/drafts/drafts.asp>

Sclerocarya birrea

Product	Market	HS Code for Exports to USA				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	3301.29.51.50
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	N/A	Excise Duties
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3808.91.25.01
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	7%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3304.99.50.00
					N/A	3307.49.00.00
					N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
					N/A	3401.19.00.00-Solid
					N/A	3401.30.50.00-Liquid

* Con = containing

INCI: SCLEROCARIA BIRREA
CAS Number: 68956-68-3 (generic number for all vegetable oils)

Sclerocarya birrea

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	Excise Duties
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	N/A	3301.29.41.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3808.91.90.90
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	7%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3304.99.00.00
					N/A	3307.49.00.90
					N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
					N/A	3401.19.00.00-Solid
					N/A	3401.30.00.00-Liquid

* Con = containing

INCI: SCLEROCLARYA BIRREA

CAS Number: 68956-68-3 (generic number for all vegetable oils)

Sclerocarya birrea

Product	Market	Marula - <i>Sclerocarya birrea</i>					HS Code for Exports to China
		General	HS Code	Import Permit	Inspection	Excise Duties	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	Excise Duties	3301.29.99.99
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	Plant Health	N/A	3808.91.12
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.29
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.90
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.90-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid

* Con = containing

INCI: SCLEROCARYA BIRREA

CAS Number: 68956-68-3 (generic number for all vegetable oils)

Sclerocarya birrea

Product	Market	HS Code for Exports to EU					
		General	HS Code	Import Permit	Inspection	Excise Duties	EU
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	Excise Duties	3301.29.41.00
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	Plant Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid

* Con = containing

INCI: SCLEROCAKYA BIRREA
CAS Number: 68956-68-3 (generic number for all vegetable oils)

Sclerocarya birrea

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	Excise Duties 3301.29.90.00
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	N/A	3808.50.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7% 3304.99.10.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A 3401.19.10.90-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A 3401.30.00.00-Liquid

* Con = containing

INCI: SCLEROCARYA BIRREA

CAS Number: 68956-68-3 (generic number for all vegetable oils)

Sclerocarya birrea

Product	Market	HS Code for Exports to India				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	Excise Duties
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	Plant Health	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3307.41/49
						3305.10.10- Con* Spirit
						3305.10.90-Other
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
						3401.19.19- Solid
						3401.30.19- Liquid

* Con = containing

INCI: SCLEROCCARYA BIRREA

CAS Number: 68956-68-3 (generic number for all vegetable oils)

Sclerocarya birrea

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	HS CODE	Import Permit	Inspection	Excise Duties	3301.29.91.90.00
Seed oil	Insecticides	3808.91.99	1211.90.90.5	Plant Health	Plant Health	N/A	3808.91.90.00.19
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.90.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00.00-Liquid

* Con = containing

INCI: SCLEROCARYA BIRREA

CAS Number: 68956-68-3 (generic number for all vegetable oils)

Mopane

Colophospermum mopane



Common Names

Oshiwambo:	Omusati
Otjherero:	Omutati
Siloz:	Mopani
Afrikaans:	Mopanie

Introduction



The mopane is a deciduous shrub or tree with leaves resembling the wings of a butterfly. The leaves smell like the oil of turpentine. Small green-yellow flowers appear on the tree. The fruit is a leathery, pale-brown kidney-shaped pod. (Curtis & Mannheimer, 2005).

Traditional knowledge

The fruit is fit for human consumption and often used during times of drought. The leaves serve as animal fodder when grass is scarce. The tree acts as a host to the Mopane larvae which, in turn, is used in local diets (Curtis & Mannheimer, 2005).

Recently the essential oil distilled from resin on the seed pods has gained importance in cosmetic products.



► Spots of resin on Mopane seed pod.

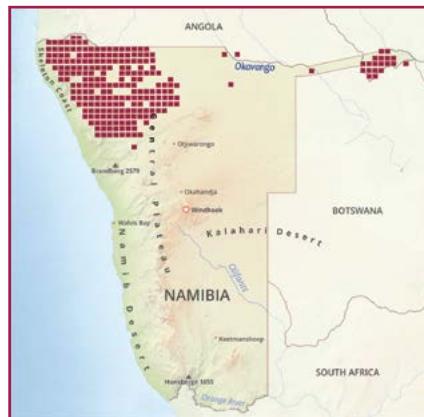
Status — Namibia: protected

Distribution

Mopane is found in areas with a variety of soil types, but mainly survives on alkaline soils. Mopane mainly

grows in areas with a low to moderate annual rainfall between 400 to 800 mm.

◀ (Irish, 2018)



Harvesting and Processing

In 2006 a supply chain for mopane seed was developed in the Otiu-West, Okongoro and Orupupa conservancies in the north-western parts of Namibia.

Mopane seeds are collected, packed in bags, labelled and transported to the nearby Opuwo Processing Facility, where they are steam distilled to extract the essential oil from the small spots of resin on the seeds (National Botanical Research Institute). Sustainability is ensured due to the abundance of the trees. Essential oils are exported to cosmetic companies regionally while the supply to European companies is being developed.



MSDS: available from KCINPT

INCI: COLOPHOSPERMUM MOPANE EXTRACT

References

Photos: K. Nott

Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.

Irish, J., 2018. *Namibia Biodiversity Database*. [Online] [Accessed Nov 2019].

National Botanical Research Institute, 2017. *Essential oils: Mopane*. [Online] [Accessed Nov 2019].

Product	Market	Mopane - <i>Colophospermum mopane</i>				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.51.50
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	N/A	3808.91.25.01
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9% 3303.00.30.00- Con* Alcohol
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9% 3303.00.20.00- Not Con* Alcohol
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3303.00.20.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract

Product	Market	Mopane - <i>Colophospermum mopane</i>					
		General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.90
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.10.00
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.90.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract

Mopane - *Colophospermum mopane*

Product	Market	HS Code for Exports to China				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.99.99
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3303.00.20_Other
						3305.10.00.90
Soap	Personal care	3401.19_Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract

Mopane - <i>Colophospermum mopane</i>		HS Code for Exports to				
Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3304.99.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	3307.49.00.00
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	3303.00.11.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	9%
						3303.00.90.00
						3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A
						3401.19.00.00-Solid
						3401.30.00.00-Liquid

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	3808.50.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.10.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	3401.19.10.90-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	3401.30.00.00-Liquid

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract

Mopane - <i>Colophospermum mopane</i>						
Product	Market	General	HS Code	Import Permit	Inspection	HS Code for Exports to India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT OF AGRIC	Port Health	3808.91.91
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.90
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.41/49
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	3303.00.40- not Con* Spirit
						3303.00.50- Con* Spirit
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	3303.00.40- Not Con* Spirit
						3303.00.50- Con* Spirit
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.10- Con* Spirit
						3305.10.90-Other
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	Port Health	3401.19.19- Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	3401.30.19- Liquid

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract

Mopane - *Colophospermum mopane*

Product	Market	HS Code for Exports to Turkey				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.91.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	3808.91.90.00.19
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00.00
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Fragrance	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30.Liquid	3401.20.00.5	N/A	Port Health	N/A

* Con = containing | INCI: COMCOLOPHOSPERMUM MOPANE Extract



Common Name

English: Horseradish tree
German: Behenussbaum /
Behenbaum / Bennuss

Introduction



▲ Cultivated *Moringa oleifera* in Northern Namibia

M. oleifera is a fast-growing evergreen tree of 10–12 m height, native to India. The leaves are mostly tripinnate and up to 45 cm long. The flowers are bisexual with a pleasant fragrance. The fruits are pendulous linear three-sided pods 20 to 50 cm long. The pods can each contain up to 26 seeds and take approximately three months to mature after flowering (Chukwuebuka, 2015).

M. ovalifolia (sprokiesboom) occurs in the north-western parts of Namibia. This species is near-endemic and protected in Namibia and not utilised commercially (Curtis & Mannheimer, 2005).

Moringa oil from *M. oleifera* is found in numerous cosmetics due to its stable moisturising, cleansing and emollient properties. With high amounts of oleic acid, ~72%, it penetrates deeply into the skin, bringing nutrients to the skin and hair, and helping it to retain moisture. It is used in shampoos, conditioners and other hair care products, lotions, body oils and creams, lip balms, anti-aging and wrinkle creams, face creams, soaps and body washes/shower gels, perfumes and deodorants. It is also incorporated in

aromatherapy and massage oils since it blends well with essential oils and is a good carrier oil. The flowers are high in nutritional value and antioxidants, which again, are beneficial for hair and skin. The flower is lightly fragranced to give hair and body a floral smell and is thus common in products such as colognes/perfumes and hair oils. (Vinay Kumar Singh, 2020)

Used Plant Parts

The seeds of the *M. oleifera* tree are well-known for their water-purifying properties. All parts of the tree are used in food, feed, sanitary, medicinal and cosmetic products. Flowers are used as tea, and oil is extracted from the seeds. Dried and powdered leaves as well as seeds are used in food supplements (Kwaambwa, et al., 2012) (Steyn, 2019). Moringa is high in nutritional value, particularly Vitamin B and C as well as several amino acids and minerals and is therefore used to compensate for malnutrition

Status Namibia: invasive

Habitat and cultivation

M. oleifera is adapted to a wide range of soil types, but performs best in well-drained clay or clay loam soil which can be slightly acidic. Prolonged waterlogging does not work well with these trees. It is drought tolerant but yields less foliage when under water stress. (Orwa, et al., 2009). The yield of cultivated trees depends on season, variety, fertilisation and irrigation (Ramasubramania, et al., 2016). Moringa is a fast-growing tree of which the flowers, leaves, pods and stems can be harvested several times per year. In Namibia, harvesting and processing is mostly done by hand (Steyn, 2019).



▲ Fresh Moringa leaves



▲ Dried Moringa leaves



▲ Moringa seeds



▲ Moringa leaf tea



Potential for development

Moringa has huge potential as ingredient in food and feed supplements, health products and cosmetic products in Namibia as well as for export (Steyn, 2019) (Kwaambwa, et al., 2012).

General market information

In 2018, the U.S. was the largest market for moringa with more than 75.0% of market share in North America. The oil is used mainly in cosmetics.

As with other ingredients for cosmetic products, demand can fluctuate as a result of changing trends. Even though moringa has distinguishing properties, products exist that can be used as substitutes, such as baobab and argan. This can influence the demand for moringa.

Several European cosmetic manufacturers have shown interest in moringa to differentiate themselves on the market.

Moringa is mostly sourced from plantations in India, but several companies are interested in African moringa oil, from African moringa plantations.

Non-tariff trade information

Moringa extracts are considered chemicals and are subject to European legislation on Classification, Labelling and Packaging (CLP). CLP legislation sets requirements for packaging and labelling of chemical substances to warn users in the supply chain of safety risks: European Regulation (EC) No 1272/2008.

REFERENCES

Photos: L. Sindano

Chukwuebuka, E., 2015. Moringa oleifera "The Mother's Best Friend". *International Journal of Nutrition and Food Sciences*, Vol. 4, No. 6, pp. pp. 624-630.

Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Reserach Institute.

Kwaambwa, H. et al., 2012. Situational analysis and promotion of the cultivation and utilisation of the Moringa oleifera tree in selected sub-Saharan Africa countries. *Progress Multi-disciplinary Research Journal*, 2(1), pp. 9-43. Orwa, C. et al., 2009. *Agroforestry Database: a tree reference and selection guide version 4.0*. [Online]

Available at: <http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp> [Accessed Nov 2019].

Ramasubramania, R. et al., 2016. Moringa Oleifera - An Overview. *RA Journal of Applied Research*, September, pp. 620-624.

Steyn, O., 2019. *Shiloh: Moringa production and processing in Namibia* [Interview] (Nov 2019).

ProFound – Advisers In Development, 2014P.-A. (2014). Sorting cocoa beans in the Dominican Republic-© The Fairtrade Foundation. [Online] Available https://usercontent.one/wp/www.tdc-enabel.be/wp-content/uploads/2020/11/Wild-collected-botanicals-and-the-EU-market_Final-report.pdf [accessed 16 Nov 2021]

Vinay Kumar Singh, C. C. (2020, August 11). THE WONDER TREE. Retrieved from 'The Wonder Tree': Moringa. Moringa in Cosmetics:<https://www.cosmeticsandtoilets.com/formulating/category/natural/The-Wonder-Tree-moring-in-Comstics-572074721.html>



Moringa - Moringa oleifera

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A		1211.90.92
Seed oil	Pharmaceuticals	1211.90.80					1211.90.92.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A		3301.29.51.50
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A		3307.49.00.00
leaf powder	Pharmaceuticals	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A		1211.90.92.90
		1302.39.20	1302.39.20.7	Dept. of Health	N/A		
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A		3004.90.92.90
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A		3305.10.00.00
Soap	Personal care	3401.19	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.30.00-Con* Alcohol
							3303.00.20.00- Not Con*. Alcohol

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9



Moringa - Moringa oleifera

Product	Market	General		HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A		1211.90.86.90
Seed oil	Pharmaceuticals	1211.90.80						1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A		3301.29.41.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A		7%	3304.99.00.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A		3307.49.00.90
leaf powder	Pharmaceuticals modified	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A		1211.90.86.90
		1302.39.20	1302.39.20.7	Dept. of Health	N/A	N/A		
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A	N/A		3004.90.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A		3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A		3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A		3401.30.00.00-Liquid
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%		3303.00.10.00

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9

Product	Market					HS Code for Exports to China
		General	HS Code	Import Permit	Inspection	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.99
Seed oil	Pharmaceuticals	1211.90.80				1211.90.39.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.99.99
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.00.29
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
leaf powder	Pharmaceuticals	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	1211.90.39.91
		1302.39.20	1302.39.20.7	Dept. of Health	N/A	N/A
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A	3004.90.99.99
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3305.10.00.90
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
						3303.00.00.20

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9



Moringa - Moringa oleifera

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to EU
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Seed oil	Pharmaceuticals	1211.90.80					1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
leaf powder	Pharmaceuticals	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1211.90.86.90
		1302.39.20	1302.39.20.7	Dept. of Health	N/A	N/A	
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A	N/A	3004.90.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.10.00

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9



Moringa - *Moringa oleifera*

Product	Market					HS Code for Exports to Korea
		General	HS Code	Import Permit	Inspection	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Seed oil	Pharmaceuticals	1211.90.80				1211.90.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.10.00
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
leaf powder	Pharmaceuticals	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	1302.39.00.00
		1302.39.20	1302.39.20.7	Dept. of Health	N/A	N/A
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A	3004.90.99.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A
						3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.130-Liquid	3401.20.00.5	N/A	Port Health	N/A
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
						3303.00.10.00

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9



Moringa - Moringa oleifera

Product	Market						HS Code for Exports to India
		General	HS Code	Import Permit	Inspection	Excise Duties	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Seed oil	Pharmaceuticals	1211.90.80					1211.90.19
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.90
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.41/49
leaf powder	Pharmaceuticals	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1211.90.29
		1302.39.20	1302.39.20.7	Dept. of Health	N/A	N/A	
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A	N/A	3004.90.99
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.10- Con* Spirit
							3305.10.90-Other
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.19- Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.19- Liquid
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%	3303.00.40- not Con* Spirit
							3303.00.50- Con* Spirit

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9

Product	Market					HS Code for Exports to Turkey
		General	HS Code	Import Permit	Inspection	
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Seed oil	Pharmaceuticals	1211.90.80				1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.00.90.13
Diffuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00.00
leaf powder	Pharmaceuticals	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	1211.90.86.00.49
		1302.39.20	1302.39.20.7	Dept. of Health	N/A	N/A
Capsules/tablets	Personal care	3004.90.99	3004.90.99.7	Dept. of Health / CITES	N/A	N/A
						3004.90.00.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A
						3305.10.00.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A
Perfume	Personal care	3303.00.90	3303.00.90.7	Port Health	N/A	9%
						3303.00.10.00.00

* Con = containing | INCI: MORINGA OLEIFERA Seed oil, Leaves, Extract. | CAS Number: 93165-54-9

Myrothamnus

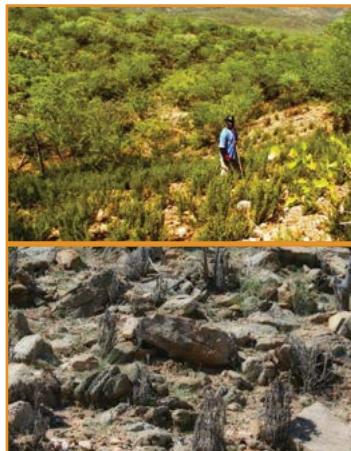
Myrothamnus flabellifolius



Common Names

Otjherero: Ohandukaze
Afrikaans: Opstandingsplant

Introduction



The resurrection plant is a woody shrub of 0.5 to 1.5 m found on the western escarpments of Namibia, solitary or in colonies. The leaves have a balsamic-like odour. The plant is a geophyte and can dehydrate its vegetative tissue, particularly the leaves, to an air-dry state with leaves turning from green to dull brown. The root system which extends into the crevices of the rocky slopes can take up rainwater very effectively and rehydrate the plant's desiccated tissue so that it returns to its original colour and shape (Moore, et al., 2007).

Harvesting and Processing

The potential annual wild harvest is large and sustainable as monitored by the Kunene Conservancies Indigenous Natural Products Trust and is therefore unlikely to be a limiting factor. In a joint venture based on a access and benefit sharing

agreement with the indigenous knowledge holders, a regional cosmetics company produces the *M. flabellifolius* leaf extract MYRO PE with applicable EU dossiers available for cosmetic use (Intiki, 2018).



Distribution

(SANBI)

Composition and use

Of the twelve phytochemicals that *M. flabellifolius* contains, flavonoids, anthocyanins, alkaloids, steroids, terpenoids, triterpenes, cardiac glycosides, saponins, phlobatannins, tannins, polyphenols and reducing sugars, the key polyphenol 3,4,5 tri-O-galloylquinic acid is responsible for oxidative protection during dormancy (Brandt, et al., 2006). The Namibian population has a substantially higher content of this polyphenol than populations elsewhere which makes it suitable for application as a potent natural source of antioxidants (Cheikhyoussef, et al., 2015). The leaf extract can be added to cosmetics to increase skin hydration, ease irritation and protect against blue light (Scents of Namibia, 2018).



INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

REFERENCES

Photos: Karen Nott and Elbe Becker

Brandt, W. et al., 2006. The South African and Namibian Populations of the Resurrection Plant *Myrothamnus flabellifolius* are Genetically Distinct and Display Variation in Their Galloylquinic Acid Composition. *Journal of Chemical Ecology* 31(12), January, pp. 2823-34.

Cheikhyoussef, A., Summers, R. & Kahaka, G., 2015. Qualitative and quantitative analysis of phytochemical compounds in Namibian *Myrothamnus flabellifolius*. *Int. Sci. Technol. J. Namibia*, 3 March.

Intiki, 2018. <http://intiki.co.za/product/myro-pe/>. [Online] [Accessed November 2019].

Moore, J., Lindsey, G., Farrant, J. & Brandt, W., 2007. An Overview of the Biology of the Desiccation-tolerant Resurrection Plant *Myrothamnus flabellifolia*. *Annals of Botany*, 11 January, p. 211–217.

Scents of Namibia, 2018. Scents of Namibia. [Online] [Accessed Nov 2019].

Myrothamnus

Myrothamnus flabellifolius



Myrothamnus - *Myrothamnus flabellifolius*

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Extract	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.00.90
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A	
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.50.00
Face cream/ serum	Personal care	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.50.00
		3304.99.90-Other	3304.99.90.9	CITES Certificate	N/A	7%	

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

Myrothamnus

Myrothamnus flabellifolius



Myrothamnus - Myrothamnus flabellifolius

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to
Extract	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.00.00
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A	
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Face cream/ serum	Personal care	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
		3304.99.90-Other	3304.99.90.9	CITES Certificate	N/A	7%	

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

Myrothamnus

Myrothamnus flabellifolius



Myrothamnus - Myrothamnus flabellifolius

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to China
Extract	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39.90.10-Endanger
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A	1302.39.90.90-other
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99
Face cream/ serum	Personal care	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.39-other packing
		3304.99.90-Other	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.99- other packing otherwise labelled

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT



Product	Market	HS Code for Exports to			
		General	HS Code	Import Permit	Inspection
				Excise Duties	EU
Extract	Cosmetics modified	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A
	Personal care	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	5%
Face cream/ serum		3304.99.90-Other	3304.99.90.9	CITES Certificate	5%
					7%

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

Myrothamnus

Myrothamnus flabellifolius



Myrothamnus - Myrothamnus flabellifolius					
Product	Market	General	HS Code	Import Permit	Inspection
					HS Code for Exports to Korea
Extract	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A
	Face cream/ serum	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	5%
		3304.99.90-Other	3304.99.90.9	CITES Certificate	7%

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

Myrothamnus

Myrothamnus flabellifolius



Myrothamnus - Myrothamnus flabellifolius

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to India
Extract	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A	N/A	1302.39
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A	N/A	
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.90
Face cream/ serum	Personal care	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.10
		3304.99.90-Other	3304.99.90.9	CITES Certificate	N/A	7%	

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

Myrothamnus flabellifolius

Myrothamnus - <i>Myrothamnus flabellifolius</i>					
Product	Market	General	HS Code	Import Permit	Inspection
					Excise Duties
Extract	Cosmetics	1302.39.10-Not modified	1302.39.10.0	Dept. of Health	N/A
		1302.39.20-Modified	1302.39.20.7	Dept. of Health	N/A
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A
Face cream/ serum	Personal care	3304.99.30-Preparations having a Sun Protection Factor (SPF) of 15 or more	3304.99.30.5	CITES Certificate	N/A
		3304.99.90-Other	3304.99.90.9	CITES Certificate	N/A
					7%

* Con = containing

INCI: MYROTHAMNUS FLABELLIFOLIA EXTRACT

Acanthosicyos horridus

Common Names

Nama, Damara, Topnaar: !nara

Otjherero: Omungaraha

English: Narras

German: Nara

Afrikaans: Botterpitte

Introduction



A perennial, dioecious, strongly branched bush up to 1 m tall and 15–40 m in diameter, with a very long woody taproot. Leaves are reduced to minute scales to reduce moisture loss in the desert climate. Plants form a hammock which accumulates sand. The pale yellow or pale green flowers are unisexual. The fruit are round and melon-like, pale-green and spiky. The seeds are large and white to creamy with buttery kernels (Maggs-Kölling, Ileka, Gottlieb, & Uushona, 2014).

Parts used



The seeds are extracted and can be eaten. Virgin oils are extracted from the seed. Traditionally the fruit pulp and seeds are processed into a variety of products (Maggs-Kölling, Ileka, Gottlieb, & Uushona, 2014).

Status - Namibia: protected, endemic

Distribution and Habitat

!Nara is endemic to the Namib Desert and occurs mostly in the Kuiseb River Delta (Maggs-Kölling, Ileka, Gottlieb, & Uushona, 2014). It is able to survive in the hyper-arid desert climate because of its woody taproot that grows deep into

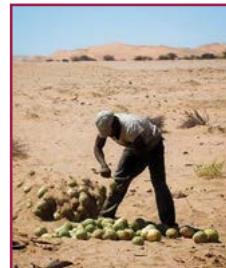
the sand allowing it to reach subterranean water. It can survive for years without any rainfall and in some areas it is the only plant species found. The dense lattice-like growth of older stems serves to catch and bind windblown sand, acting as a dune stabiliser. The age of mature fruiting !nara plants may exceed 100 years (Wilkins-Ellert, 2004).



▲ (Irish, 2019)

Traditional knowledge and harvesting

!Nara fruit have been collected from wild plant populations as long as the Namib Desert exists. Attempts to domesticate !nara have been unsuccessful for reasons relating to its very specific habitat requirements. Historically families of the Topnaar people of the Lower Kuiseb Valley owned and utilised the !Nara fruit from bushes allocated amongst the communities. (Dentlinger, 1977)

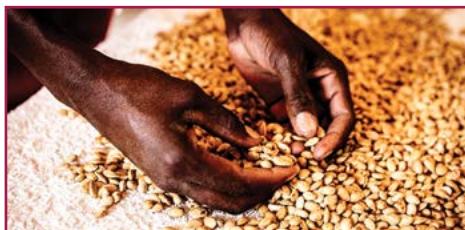


Currently, the !Nara fields have largely been commercialised and are communal property (Maggs-Kölling, Ileka, Gottlieb, & Uushona, 2014). The Topnaar people use all parts of the melons, their knowledge of this age-old tradition is passed on from each generation to the next. A considerable potential exists in the large-scale utilisation of this localised resource.

Acanthosicyos horridus

Composition and use

!Nara Oil is extremely high in unsaturated fatty acids (23% = mono-unsaturated, 57% di-unsaturated and 0.1% poly-unsaturated) and therefore very beneficial for dry and irritated skin conditions. The oil is well absorbed and has shown very positive effects on sensitive skin conditions (Desert Hills). !Nara Oil is a 100% pure cold-pressed virgin oil, without any additives produced by Desert Hills.



Documentation available

MSDS & CPNP for !Nara Namibia natural cosmetics

CPNP for Namib Desert Oils

INCI: ACANTHOSICYOS HORRIDUS (!NARA) SEED OIL

Potential for development

The seed oil has a very high component of unsaturated fatty acids which makes it suitable for use on irritated and dry skin.

The ripe fruits are aromatic and the pulp is rich in sugars. The fruit pulp and plant sap contain a non-volatile enzyme which curdles milk (Wilkins-Ellert, 2004).



Green unripe fruits contain varying amounts of highly oxygenated tetracyclic triterpenoids, called cucurbitacins. Cucurbitacins B and D have been identified as the primary source of bitterness, together with traces of cucurbitacins G and H. As the fruits ripen they rapidly lose their bitterness under the influence of the enzyme elaterase.

The starches are of an unusually small size, which renders them suitable in the production of biodegradable plastics. (Wilkins-Ellert, 2004)

REFERENCES

Photos: S. Hümer

Dentlinger, U. (1977). *The !Nara plant in the Topnaar-Hottentot culture of Namibia: ethnobotanical clues to an 8 000 year-old tradition.*

Desert Hills. (n.d.). Brochure !Nara Oil. Swakopmund, Namibia: !NARA NAMIBIA DESERT GOLD RANGE.

Irish, J. (2019, Nov). *Namibia Biodiversity Database Web Site.*

Maggs-Kölling, G., Ileka, R., Gottlieb, R., & Uushona, E. (2014). !Nara. In MCA, *The commercialisation of Indigenous Plant Products in Namibia*. Windhoek: Venture Publications.

Wilkins-Ellert, M. (2004). *Acanthosicyos horridus Welw. ex Hook. [Internet] Record from PROTA4U. Grubben, G.J.H. & Denton, O.A. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands.*



!Nara - Acanthosicyos horridus

Product	Market	HS Code for Exports to USA					
		General	HS Code	Import Permit	Inspection	Excise Duties	USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	N/A	1515.90.80.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Body oil	Personal care	3304.99.90	3307.30.00.0	Port Health	N/A		3304.99.50.00
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.10.00
Deodorant cream	Personal care	3307.20.10-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	3307.20.00.00
		3307.20.90-other					
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	3307..10.10.00-not Con* Alcohol
		3307.10.90-other	3307.10.90.6	Customs	N/A	N/A	3307.10.20.00-Con* Alcohol

* Con = containing | INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA
 Rules of Origin: 1. Origin Declaration by the exporter; 2. EUR1 certificate
 Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required
 US Imports: 1515.90.81 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA
 Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)



Acanthosicyos horridus

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	N/A	1515.90.99.99
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Body oil	Personal care	3304.99.90	3307.30.00.0	Port Health	N/A	N/A	3304.99.00.00
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.00.00
Deodorant cream	Personal care	3307.20.10-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	3307.20.00.00
		3307.20.90-other					
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90 - without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	3307.10.00.00
		3307.10.90-other	3307.10.90.6	Customs	N/A	N/A	

* Con = containing | INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA
 Rules of Origin: 1. Origin Declaration by the exporter, 2. EUR1 certificate
 Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required
 US Imports: 1515.90.8 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA
 Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)



!Nara - Acanthosicyos horridus

Product	Market		General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to China
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	N/A	3301.29.99.99
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	N/A	N/A	151.90.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	N/A	7%	3304.99.00.29
Body oil	Personal care	3304.99.90	3307.30.00.0	Port Health	N/A	N/A	N/A	3304.99.00.29
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	N/A	3307.30.00.00
Deoderant cream	Personal care	3307.20.10-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	N/A	3307.20.00.00
		3307.20.90-other						
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	N/A	3305.10.00.90
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	N/A	3401.19.90-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	N/A	7%	3304.99.00.39-other packing
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	N/A	5%	3304.99.00.99- other packing otherwise labelled
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	N/A	3307.10.00.00
		3307.10.90-other	3307.10.90.6	Customs	N/A	N/A	N/A	

* Con = containing | INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA Rules of Origin: 1. Origin Declaration by the exporter, 2. EUR1 certificate

Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required
 US imports: 1515.90.81 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA
 Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)

Acanthosicyos horridus

!Nara - Acanthosicyos horridus

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to EU
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	N/A	1515.90.99.99
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Body oil	Personal care	3304.99.90	3307.30.00.0	Port Health	N/A	N/A	3304.99.00.00
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.00.00
Deoderant cream	Personal care	3307.20.10-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	3307.20.00.00
		3307.20.90-other					
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
Skin cream	Personal care	3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
	Personal care	3304.99.90-without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30-Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	3307.10.00.00
		3307.10.90-other	3307.10.90.6	Customs	N/A	N/A	

* Contains: INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA
 Rules of Origin: 1. Origin Declaration by the exporter; 2. EUR1 certificate
 Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required
 US Imports: 1515.90.81 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA
 Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)

Acanthosicyos horridus

!Nara - Acanthosicyos horridus

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Korea
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90.00
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	N/A	1515.90.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
Body oil	Personal care	3304.99.90	3307.30.00.0	Port Health	N/A	N/A	3304.99.10.00
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.10.00-Purfumed
Deoderant cream	Personal care	3307.20.10-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	3307.30.20.00-other
		3307.20.90-other					3307.20.00.00
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.10.90-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	3307.10.10.00
		3307.10.90-other	3307.10.90.6	Customs	N/A	N/A	

* Con = containing | INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA
 Rules of Origin: 1. Origin Declaration by the exporter, 2. EUR1 certificate
 Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required
 US Imports: 1515.90.81 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA
 Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)



!Nara - Acanthosicyos horridus

HS Code for Exports to

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.90.99	
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90	
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	1515.90.99	
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.90
Body oil	Personal care	3304.99.90				3304.99.90	
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	3307.20	
Deoderant cream	Personal care	3307.20.10-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	3307.20
		3307.20.90-other					
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.10. Con * Spirit
							3305.10.90-Other
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.19-. Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.19-. Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.30-. moisturising lotion
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.10-. Face cream
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	3307.10.10-. Shaving cream
		3307.10.90-other	3307.10.90.6	Customs	N/A	N/A	3307.10.90-. other

* Con = containing | INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA

Rules of Origin: 1. Origin Declaration by the exporter, 2. EUR 1 certificate

Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required

US Imports: 1515.90.81 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA

Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)



Acanthosicyos horridus

!Nara - Acanthosicyos horridus

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.91.90.00
Seed oil	Cosmetics	1515.90.90	1515.90.90.5	Plant Health	N/A	N/A	1515.90.99.00.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
Body oil	Personal care	3304.99.90	3307.30.00.0	Port Health	N/A	N/A	3304.99.00.90.13
Bath salt	Personal care	3307.30	3307.30.00.0	Port Health	N/A	N/A	3307.30.00.00.00
Deoderant cream	Personal care	3307.20.10.-(aerosol container)	3307.20.10.2	Customs	N/A	N/A	3307.20.00.00.00
		3307.20.90.-other					
Shampoo/conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19 .- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.90.00-Solid
		3401.30 .-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	
Aftershave	Personal care	3307.10.20-(aerosol container)	3307.10.20.5	Customs	N/A	N/A	3307.10.00.10.00- lotion
		3307.10.90.-other	3307.10.90.6	Customs	N/A	N/A	3307.10.00.90.11.-cream
							3307.10.00.90.19- other

* Con = containing | INCI: ACANTHOSICYOS HORRIDUS | CAS Number: 68956-68-3 | EU Imports: 1515.90.99.99 | Customs Duties: 0% - SADC EPA
 Rules of Origin: 1. Origin Declaration by the exporter, 2. EUR1 certificate
 Taxes: VAT applicable | Import Requirements: CITES may be required if applicable | If "organic" then import certificate is required
 US Imports: 1515.90.8 | Customs Duties: 0% AGOA | Rules of Origin: As per AGOA
 Taxes | Import Requirements: EPA Prohibition (CITES certificate may be required)

Sarcocaulon

Sarcocaulon mossamedense



Common Names

Himba: Okamuti
German: Buschmannkerze
Afrikaans: Boesmanskers

Introduction



A small bush with long-lived fleshy stiff stems that can grow about one 1m high with a woody main root. The deciduous leaves can slowly be transformed into spines. Pink flowers occur. The stems are covered in a waxy translucent bark which allows plants to limit the loss of water during periods of intense aridity (National Botanical Research Institute, 2016).

Used Plant Parts

When the plant dies, the waxy shell lies on the desert sands and hardens and darkens in colour with exposure to the high temperatures and dry conditions. The dead material is collected and no living material is damaged. This wax contains interesting and unique fragrances that are won by solvent extraction and can be used in a variety of applications (Scents of Namibia, 2018).



Status Namibia: near-endemic

Distribution

(SANBI, 2019)

Habitat and sustainable use of resource

S. mossamedense grows in extremely arid and bare locations, usually among rocks.

Populations are typically localised and occur in high densities in the Puros, Sanitatas, Okondjombo and Orupembe conservancies in the Kunene region, as well as in the Skeleton Coast National Park (National Botanical Research Institute, 2016).



The plant has no traditional use in its natural habitat and the development of a supply chain has initiated its collection by women living in the Kunene Region. Since only the dried parts of dead plants are collected there is no threat to the relatively abundant resource (Nott, 2014).



Listings

INCI SARCOCaulon MOSSAMEDENSE EXTRACT

INCI BUSHMAN CANDLE RESINOID

EC / List no.: 825-481-1

CAS no.: 1365254-19-8

REFERENCES

Photos: K. Nott and D. Cole

National Botanical Research Institute, 2016. <http://www.nbri.org.na/sections/economic-botany/INP/sectors/Mopane%20and%20Sarcocaulon>. [Online] [Accessed Nov 2019].

Nott, K., 2014. Essential oils: Mopane and Sarcocaulon. In: *The commercialisation of Indigenous Plant Products in Namibia*. Windhoek: Venture Publications.

SANBI, 2019. *African Plant database*. [Online] [Accessed Nov 2019].

Scents of Namibia, 2018. *Scents of Namibia*. [Online] [Accessed Nov 2019].

Sarcocaulon

Sarcocaulon mossamedense



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health//DEPT. OF AGRIC	Port Health	N/A	3808.91.25.01
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.30.00- Con* Alcohol
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.50.00
Shampoo/Conditioner	Personal care	3305.10.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI: SARCOCaulon MOSSAMENDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number: 1365254-19-8



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.90
Perfume	Personal care	3303.00.90				3303.00.10.00	
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30 - Sun pro- tection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI: SARCOCAULON MOSSAMENDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number: 1365254-19-8

Sarcocaulon

Sarcocaulon mossamedense



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to China
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.99.99
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	1515.90.80.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.29
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.00.10
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.90
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.90. Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00. Liquid
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.39 - other packaging
		3304.99.30 - Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.99 - other packing otherwise labelled

* Con = containing

INCI: SARCOCAULON MOSSAMENDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number:1365254-19-8

Sarcocaulon

Sarcocaulon mossamedense



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to EU
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90					3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI: SARCOCAULON MOSSAMENDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number: 1365254-19-8

Sarcocaulon

Sarcocaulon mossamedense



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	3301.29.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	3808.50.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3304.99.10.00
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	3307.49.00.00
Perfume	Personal care	3303.00.90				3303.00.10.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%
Shampoo/Conditioner	Personal care	3305.10.00	3305.10.00.3	Port Health	N/A	3304.99.10.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A
Skin cream	Personal care	3304.99.90 - without sunscreen	3304.99.90.9	CITES Certificate	N/A	3401.30.00.00-Liquid
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	3304.99.10.00
						5%

* Con = containing

INCI: SARCOCaulon MOSSAMENDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number: 1365254-19-8



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT OF AGRIC	Port Health	N/A	3808.91.91
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.90
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.41.49
Perfume	Personal care	3303.00.90					3303.00.40- not Con* Spirit
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.90
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.10- Con* Spirit
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3305.10.90-Other
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.19.19- Solid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3401.30.19- Liquid
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.30- moisturising lotion
							3304.99.10- Face cream
							3304.99.90- other

* Con = containing

INCI: SARCOCAULON MOSSAMEDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number: 1365254-19-8

Sarcocaulon

Sarcocaulon mossamedense



Sarcocaulon - Sarcocaulon mossamedense

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.91.90.00
Insecticides	Insecticides	3808.91.99	3808.91.99.5	Port Health/DEPT. OF AGRIC	Port Health	N/A	3808.91.90.00.19
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
Difuser	Personal care	3307.49.10	3307.49.90.7	Customs	N/A	N/A	3307.49.00.00.00
Perfume	Personal care	3303.00.90					3303.00.10.00.00
Sunscreen	Personal care	3304.99.30	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.00.90.13
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.90.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00.00-Liquid
Skin cream	Personal care	3304.99.90- without sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing

INCI: SARCOCAULON MOSSAMENDENSE EXTRACT / BUSHMAN CANDLE RESINOID | CAS Number: 1365254-19-8

Ximenia americana

Common Names

Oshiwambo:	Eembeke / Eemheke
Kwangali:	Kakukuru
Silozi:	Mungmba
Otjherero:	Omumbeke
!Kung:	G//oe
English:	Large sour plum
German:	Größe
Afrikaans:	Wildpflaume Geelpruim / Kleinsuurpruim

Introduction



A bush-forming shrub or small tree 2–7 m high with straight thorns. Leaves are semi-succulent with both surfaces blue-green with a dull waxy coating. The fragrant white, yellow-green or pink flowers occur in branched inflorescences. Fruits are ovoid stone-fruit that are yellowish or orange when ripe. Fruit contain a juicy pulp and one seed kernel. The seed is woody with a fatty kernel and a brittle shell (Orwa, et al., 2009). Another Ximenia species occurs in Namibia, *X. caffra*, of which the fruit are sweet compared to the inedible fruit of *X. americana*. *X. americana* has two varieties in Namibia. Phenotypical variations in the fruit and oil compositions are observed across species and varieties as well as regions.

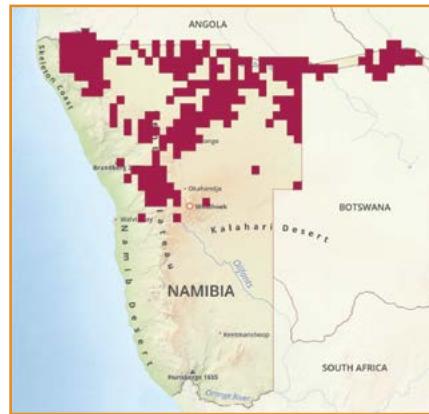
Traditional use

X. americana has a long tradition of use in Northern Namibia.

Roots, bark and leaves are used in traditional remedies. The seeds are roasted, crushed and boiled to extract the seed oil which is used as an emollient and for hair care (Mallet & den Adel-Sheehama, 2014). The fruit are unsuitable for human consumption but can be eaten by goats which may contribute to the propagation of the plant.

Status IUCN: least concern

Habitat description



Mostly solitary trees spread in open country, dry acacia woodland, wooded grassland and scrub, savannah, gallery forest, along coastal areas, in the brushwood of dry forests, in dry woodlands or on riverbanks (NBRI, 2014).

Abundance and sustainable use

Although the distribution pattern of *Ximenia* is patchy, high densities of shrubs above 40 per ha (up to 140 per ha) have been counted in localised pockets that form the main harvesting areas. Harvesters' estimates of the age of some of the larger trees ranged between 40 and 70 years, and young trees start producing a substantial fruit harvest after 4–10 years.

In the longer term, propagation of *Ximenia* trees has the potential to increase harvesting volumes and reduce the present harvesting effort of collecting *Ximenia*



fruits from distant trees that need to be visited regularly throughout the fruiting season (NBRI, 2014).



Ximenia americana

Harvesting and Processing

The Tulongeni Twahangana Cooperative (TTC) was founded in 2012 in north central Namibia and has since developed a supply chain in collaboration with CRIAA SA-DC to produce virgin-oils (Bennett, 2012). TTC has become one of the leading suppliers of sustainably produced, quality controlled and traceable Ximenia in Namibia and the southern Africa region (NBRI, 2014) (Samwel, 2018). Extended research has led to the development of sophisticated oil processing methods to accommodate the unique properties of Ximenia seed oil (Mallet & den Adel-Sheehama, 2014).



▲ Ximenia seed



▲ Ximenia kernels

Ximenia oil is available as virgin oil (cold-pressed and decanted and/or filtered) as well as in a purified (light refining) market-ready quality.

INCI: XIMENIA AMERICANA SEED OIL

Seed intake at ▶
Tulongeni Twahangana
Cooperative



Composition and use

Ximenia seed oil is very stable as it contains around 80% mono-

unsaturated fatty acids. It contains for a vegetable oil unusually high proportions of long-chained fatty acids such as Ximeninic, Ximenic and nervonic acid with proven bioactive properties which makes it a unique oil (MNS Bulletin, 2009).

In cosmetics it is used for restoring the integrity of the cell wall and for restructuring properties (anti-ageing). It is also has anti-inflammatory properties and can improve the functioning of the sebaceous tissues for the use in hair growth products (NBRI, 2014).

Purified and
Virgin Ximenia
oil. ▶



REFERENCES

Photos: CRIAA SA-DC

Bennett, B., 2012. Managing the nexus of supply and demand for wild harvested natural products: the lipid oils of Namibia. *NBRI News*.

Curtis, B. & Mannheimer, C., 2005. *Tree Atlas of Namibia*. Windhoek: National Botanical Research Institute.

Irish, J., 2018. *Namibia Biodiversity Database Web Site*. Page: *Ximenia americana L. 1753 in Namibia*. [Online].

Mallet, M. & den Adel-Sheehama, S., 2014. Lipid oils: Ximenia (*X. americana*). In: *The commercialisation of indigenous natural plant products in Namibia*. Windhoek: Venture Publications.

MNS Bulletin, 2009. Essential oils and oleoresins. *Bulletin MNS*, October.

NBRI, 2014. *Lipid Oils: Ximenia*. [Online] [Accessed Nov 2019].

Orwa, C. et al., 2009. *Agroforestry Database*: a tree resource and selection guide version 4.0. Volume

Samwel, M., 2018. *Tulongeni Twahangana Cooperative*. Pretoria, s.n.



Ximenia americana

Ximenia - Ximenia americana

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to USA
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.92
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.51.50
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dept. of Agric.	Port Health	N/A	3808.91.25.01
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
Diffuser	Personal care	3307.49.10					3307.49.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.50.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.50.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 95193-67-2



Ximenia americana

Ximenia - Ximenia americana

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to UK
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.41.00
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dept. of Agric	Port Health	N/A	3808.91.90.90
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
Difuser	Personal care	3307.49.10					3307.49.00.90
Shampoo/Conditioner	Personal care	3305.10.00	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.00.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 95193-67-2



Ximenia americana

Ximenia - Ximenia americana

Product	Market	HS Code for Exports to				
		General	HS Code	Import Permit	Inspection	Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	1211.90.99
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dept. of Agric	Port Health	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	3808.91.12
Difuser	Personal care	3307.49.10			7%	3304.99.00.29
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	3307.49.00.00
						3305.10.00.90
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A
		3401.30. Liquid	3401.20.00.5	N/A	Port Health	3401.19.90-Solid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	3401.30.00-Liquid
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	3304.99.00.39-other packing
					5%	3304.99.00.99- other packing otherwise labelled

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 95193-67-2



Ximenia americana

Ximenia - Ximenia americana

Product	Market	HS Code	Import Permit	Inspection	HS Code for Exports to EU
	General				Excise Duties
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	N/A
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dept. of Agric	N/A
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A
Difuser	Personal care	3307.49.10			7%
Shampoo/Conditioner	Personal care	3305.10.00.10	3305.10.00.3	Port Health	N/A
					N/A
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	3305.10.00.00
		3401.30-Liquid	3401.20.00.5	N/A	
Skin cream	Personal care	3304.99.90-without Sunscreen	3304.99.90.9	CITES Certificate	N/A
		3304.99.30-Sun pro- tection of 15 or more	3304.99.30.5	CITES Certificate	N/A
					5%

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 95193-67-2



Ximenia americana

Ximenia - Ximenia americana

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Korea
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.20.20.90
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90.00
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dept. of Agric	Port Health	N/A	3808.50.90.00
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
Difuser	Personal care	3307.49.10				3307.49.00.00	
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00
Soap	Personal care	3401.19- Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.10.90-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00-Liquid
Skin cream	Personal care	3304.99.90 - without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.10.00
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 95193-67-2



Ximenia americana

Ximenia - Ximenia americana

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to India
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.99
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.90
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dep't. of Agric	Port Health	N/A	3808.91.91
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.90
Difuser	Personal care	3307.49.10				3307.41/49	
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.10- Con* Spirit
							3305.10.90-Other
Soap	Personal care	3401.19-Solid	3401.11.00.7	N/A	Port Health	N/A	3401.19.19- Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.19- Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.30- moisturising lotion
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	3304.99.10- Face cream
							3304.99.90- other

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 95193-67-2

Ximenia americana

Ximenia - Ximenia americana

Product	Market	General	HS Code	Import Permit	Inspection	Excise Duties	HS Code for Exports to Turkey
Seed oil	Cosmetics	1211.90.90	1211.90.90.5	Plant Health	Plant Health	N/A	1211.90.86.00.49
Essential oils	Cosmetics	3301.29.90	3301.29.90.6	N/A	N/A	N/A	3301.29.91.90.00
Seed oil	Insecticides	3808.91.99	3808.91.99.5	Port Health/ Dept. of Agric	Port Health	N/A	3808.91.90.00.19
Body oil	Personal care	3304.99.90	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
Difuser	Personal care	3307.49.10					3307.49.00.00.00
Shampoo/Conditioner	Personal care	3305.10	3305.10.00.3	Port Health	N/A	N/A	3305.10.00.00.00
Soap	Personal care	3401.19. Solid	3401.11.00.7	N/A	Port Health	N/A	3401.11.00.90.00-Solid
		3401.30-Liquid	3401.20.00.5	N/A	Port Health	N/A	3401.30.00.00.00-Liquid
Skin cream	Personal care	3304.99.90- without Sunscreen	3304.99.90.9	CITES Certificate	N/A	7%	3304.99.00.90.13
		3304.99.30- Sun protection of 15 or more	3304.99.30.5	CITES Certificate	N/A	5%	

* Con = containing | INCI: XIMENIA AMERICANA Seed Oil | CAS Number: 951193-67-2