Production of Essential Oil and Vegetable Oil has potential for Socio-Economic Transformation in South Africa

KM Swanepoel
Thanks to farmers
There is oil
There is a presentation
Essential Oil Pioneers in SA

Within other industries

Medicinal Plants
Sugar Cane
Forestry
Tobacco
Maize
Citrus
Wine
Tourism
Increasing Markets

- Perfume
- Cosmetic
- Flavouring
- Industrial
- Agricultural
- Pharmaceutical
- Veterinary
- Aromatherapy
Content

- How do we compare with other BRICS countries?
- What can we learn from other BRICS countries?
- What about the rest of SADC and Africa?
- What about others in Southern Hemisphere e.g. Australia?
- What about production by MINTS countries?
<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
<th>GDP (nominal)</th>
<th>Government spending</th>
<th>Exports</th>
<th>Imports</th>
<th>GDP per capita (PPP)</th>
<th>Literacy rate</th>
<th>Life expectancy (years, avg.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>193,946,886</td>
<td>$2,395.9 bn</td>
<td>$846.6 bn</td>
<td>$256.0 bn</td>
<td>$238.8 bn</td>
<td>$11,875</td>
<td>88.6%</td>
<td>72.2</td>
</tr>
<tr>
<td>Russia</td>
<td>143,451,702</td>
<td>$2,021.9 bn</td>
<td>$414.0 bn</td>
<td>$542.5 bn</td>
<td>$358.1 bn</td>
<td>$17,708</td>
<td>99.6%</td>
<td>67.7</td>
</tr>
<tr>
<td>India</td>
<td>1,210,193,422</td>
<td>$1,824.8 bn</td>
<td>$281.0 bn</td>
<td>$309.1 bn</td>
<td>$500.3 bn</td>
<td>$3,829</td>
<td>74.04%</td>
<td>64.2</td>
</tr>
<tr>
<td>China</td>
<td>1,354,040,000</td>
<td>$8,227.0 bn</td>
<td>$2,031.0 bn</td>
<td>$2,021.0 bn</td>
<td>$1,780.0 bn</td>
<td>$9,161</td>
<td>92.2%</td>
<td>72.7</td>
</tr>
<tr>
<td>South Africa</td>
<td>51,770,560</td>
<td>$384.3 bn</td>
<td>$95.27 bn</td>
<td>$101.2 bn</td>
<td>$106.8 bn</td>
<td>$11,375</td>
<td>86.4%</td>
<td>51.2</td>
</tr>
</tbody>
</table>

Economic data is sourced from the most recent IMF figures and given in US dollars. [1]
Export Essential oils, perfumes, cosmetics, toileteries

Unit: US Dollar thousand

Sources: ITC calculations based on UN COMTRADE statistics.
Import Essential oils, perfumes, cosmetics, toileteries

Unit: US Dollar thousand

Sources: ITC calculations based on UN COMTRADE statistics.
Trade Balance

Essential oils, perfumes, cosmetics, toileteries

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>India</th>
<th>Brazil</th>
<th>South Africa</th>
<th>Russia Federation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2006</td>
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<td>2010</td>
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<td>2011</td>
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<td>2012</td>
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<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unit: US Dollar thousand

Sources: ITC calculations based on UN COMTRADE statistics.
Brazil Now World’s Top Market for Fragrances

- Brazil has overtaken the U.S. to become the world’s largest market for fragrances, according to a report recently. (Euromonitor International)
- While U.S. sales of fragrance stood at $5.3 billion, Brazilian sales rose 33% to $6 billion in 2010.
- Data from the Brazilian Association of the Cosmetic, Toiletry & Fragrance Industry (ABIHPEC) indicates that the fragrance market grew about 18% in 2010.
- Besides the sharp growth in consumption, results were also impacted by the appreciation of the Brazilian real (R$) against the U.S. dollar.
- “Fragrance sales in Brazil are concentrated primarily on mass market brands, which now account for 93% of revenue,” said Euromonitor analyst Marcel Motta, who noted the leading companies are Natura and O Boticário, which combined account for a market share of 60%.
- 61% of the Brazilian population wears perfumes on a regular basis.
- Potential market of nearly 40% to be explored!
BRAZIL

• **Focus on Citrus (40,000 T/a) no 1 producer in the world.**
• Also like SA, producing Lemon Grass, Eucalyptus and mint.
• Over the past 10 years, first- and second-tier emerging markets have been at the forefront of growth in the global bath and body care category, offsetting performances in the traditionally higher value markets of North America, Japan and Western Europe.
• **Brazil has stood out among the crowd, driving the biggest absolute growth rates year-on-year in the world.**
• In 2010, Brazil’s bath and body care category posted real growth of 11%. This was the equivalent of more than US$900 million of incremental retail business.
• The retail value of bath and body care products grew by 99% in Brazil (at constant prices) compared, for example, with 41% in China, 4% in Mexico and a contraction of 5% in the U.S.
• According to projections by Nivea, Brazil tends to present the best performance in the block of developing countries.
Global Scales of Consumption Tip
From North to South America

• Over the next five years, global retail sales of bath and body care products are forecast to generate more than US$8 billion of new business, of which Brazil is projected to fuel around one third.

• India, Russia and China are tipped to be the next three biggest growth stories in absolute terms, but their combined incremental retail value is still forecast to be around US$1 billion less than in Brazil. (Euromonitor International)

• What is striking is that in the emerging world order of fast-moving consumer goods, it is rare for China to be held so firmly off the top growth position.

• That alone is a measure of the dynamism of Brazil’s bath and body care market.

• Nail Polish Market Grows 23%; Competition Intensifies

• With a sales growth of 23% in 2010, the nail polish market reached revenues of R$800 million (with approximately 600 million units sold), according to data from Nielsen.

• While the Risqué (Hypermarcas) and Colorama (L’Oréal) brands lost market share, Impala’s market share grew from 10.9% to 13.8%.

• According to Brazil’s IPCA, the country’s consumer price index, there was a 13.83% rise in prices of nail care products, which was above the inflation rate of 5.91% registered in the same period.

http://www.gcimagazine.com/marketstrends/regions/bric/125482083.html
RUSSIA

- **Aggressively Agricultural Production Priority**
- **Scientific and Technology Approach**
  - State scientific institution All-Russia Research Institute of Oil Crops by V.S. Pustovoit (VNIIMK) is the leading institution of Russia occupied with breeding, seed growing and technologies of cultivation of oil crops.
  - VNIIMK offers you seeds of the following oil crops: sunflower, sunflower hybrids, oil flax, soybean, winter and spring rapeseed, castor, mustard, turnip, coriander.
  - Varieties and hybrids of the VNIIMK development were put in the State Register of breeding achievements eligible for production use.
  - All varieties and hybrids of oil crops have passed the evaluation tests and ensure gaining of high yield.
  - Seeds of oil crops provided by the Institute satisfy the requirements of the State Standard of sowing qualities.
  - Specialists of the Institute are always ready to offer consultations on technologies of oil crops cultivation and mechanical means which make it possible to realize the potential of our varieties and hybrids to the full extent.
  - Breeding of high-yielding oil and essential-oil crops varieties and hybrids with improved quality of oil, proteins, essential oils and resistant to main diseases and pests;
  - Improvement of system of seed growing and production of seeds in Russia;
  - Development of adaptive, ecologically sound technologies of oil and essential-oil crops management for different zones of the country;
  - Development of methods and devices for analysis of seeds and oil quality;
  - Construction of machines and devices for managing, harvesting and postharvesting processing of seeds
RUSSIA CONT

• Russia joined the World Trade Organisation (WTO) on 22 August 2012

• EU exports to Russia are dominated by machinery and transport equipment, chemicals, medicines and agricultural products.

• Russia's facial care market is the fifth largest in Europe, according to Datamonitor, with 8% year-on-year growth and a CAGR of 9% to 2017

• Russia's cosmetics market is robust, although rouble decline has prompted uncertainty
STUDY OF COMPARISON:

ESSENTIAL OIL INDUSTRY IN INDIA & BRAZIL

PROBLEMS AND PROSPECTS

Hora Representacoês, Santos, Brazil
Dierberger Oleos and Essenciãs, Sao Paulo, Brazil
Citasuco, Sao Paulo, Brazil
Duãs Rodas, Joilville, Brazil
International Flavours & Fragrance, Brazil,
Capauni Flavours, Sao Paulo, Brazil, etc.

And in India from respondents like
Swati Menthol, Rampur, Uttar Pradesh, India
Hindustan Mint & Allied products, Chandausi, India
Synthite Chemicals, Collenchery, Kerala etc.
Universal Exports, Mumbai, India
A guide for an Indian Exporter to Brazil

- A guide for an Indian Exporter to Brazil
  The Embassy of India, Brazil has brought out a publication entitled India-Brazil in Focus
- The information available in this publication is detailed, useable and very practical.
- Based on the information, an exporter should be able to plan focused trade promotion of the specific product.
- This would result in more fruitful outreach for the exporters in Brazil.
- Brazil being far away and culturally requiring face to face contact, this publication would be useful to the Indian exporters.
- Member-exporters to Brazil may kindly refer this publication which is available at

  https://issuu.com/embajada_de_india/docs/a_guide_for_an_indian_exporter_to_b/3?e=0
Indian manufacturers export a wide range of quality cosmetic production which have gained acceptance of consumers all over the world.

India exports such natural and herbal cosmetics products to countries like UAE, USA, Netherlands, Saudi Arabia, Germany, Japan, Malaysia, Nepal, Sri Lanka, UK, China, Indonesia, France, Russia and Italy.

The Indian cosmetic industry has shown its ability to produce a wide range of products of good quality and price.

When it comes to the herbal and natural cosmetics, the new globalize scenario has created the need to maintain consistent quality and price at par with international markets.

The exports of Cosmetics, Toiletries & Essential Oils during 2012-13 touched US$ 1898.5 Million
India

- India is acknowledged to be the second largest exporter of Herbal cosmetics to the world market after China.
- The range of products being skin care products, including creams, lotions, lubricants, skin fresheners, bleaches, medicated ointments, deodorants, sunscreens, face creams, toilet powder, lipsticks, mascaras, eye brow pencils, eye shadows etc.
- Hair cosmetics include shampoos, conditioners, hair dyes/color, Hair tonics, hairdressings, bleaches and depilatories etc.
- Oral cosmetics covers dentifrices, mouth wash, toothpastes, mouth fresheners etc.
- Recently, aromatherapy products have also achieved popularity for their medicinal values and perfumery attraction. In the entire range of products that fall within the territory of the Indian cosmetic and toiletries market, the most popular items are color cosmetics, of which nail varnish, lipsticks and lip glosses account for the most sales.
INDIA

• The Indian Cosmetic Toiletries & Essential Industry has witnessed rapid growth over the last couple of decades.
• Beauty products manufacturers in India mostly cater to the great demand for cosmetics and toiletries that fall into the low or medium price categories as the greatest demand in India has always been for these economically priced.
• Herbal cosmetics from India have a great demand in the overseas market and many cosmetic products that are manufactured in India, today are supplied to international suppliers to branded cosmetics products.
• The first being the increase for the demand in Indian cost-effective products and the second being the increased purchasing power of the average Indian.
COSMETICS IN CHINA

- The cosmetics sector on the Chinese mainland has been growing at a fast pace in tandem with the rapid development of the Chinese economy in recent years.

- Data from Euromonitor reveals that total retail sales of skin care products and make-up products in China reached Rmb142 billion and Rmb21 billion respectively in 2014, achieving year-on-year growth of 8.0% and 9.4% respectively.
## China Imports

### China’s imports of major cosmetic products in 2014

<table>
<thead>
<tr>
<th>HS Code</th>
<th>Description</th>
<th>2014 (US$ million)</th>
<th>YoY change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33030000</td>
<td>Perfumes and toilet waters</td>
<td>191.01</td>
<td>96.7</td>
</tr>
<tr>
<td>33041000</td>
<td>Lip make-up preparations</td>
<td>97.27</td>
<td>101.8</td>
</tr>
<tr>
<td>33042000</td>
<td>Eye make-up preparations</td>
<td>78.37</td>
<td>31.1</td>
</tr>
<tr>
<td>33049100</td>
<td>Powders, whether or not compressed</td>
<td>82.97</td>
<td>54.8</td>
</tr>
<tr>
<td>33049900</td>
<td>Other (including preparations for the care of the skin, suntan preparations, etc.)</td>
<td>1,923.02</td>
<td>70.9</td>
</tr>
<tr>
<td>33051000</td>
<td>Shampoos</td>
<td>61.88</td>
<td>36.3</td>
</tr>
<tr>
<td>33052000</td>
<td>Preparations for permanent waving</td>
<td>2.46</td>
<td>-56.5</td>
</tr>
<tr>
<td>33053000</td>
<td>Hair lacquers</td>
<td>8.44</td>
<td>-5.1</td>
</tr>
<tr>
<td>33059000</td>
<td>Other</td>
<td>58.42</td>
<td>23.8</td>
</tr>
<tr>
<td>33072000</td>
<td>Personal deodorants and antiperspirants</td>
<td>5.28</td>
<td>-40.5</td>
</tr>
</tbody>
</table>

Source: Global Trade Atlas
The retail sales of cosmetic products of enterprises above designated size in the wholesale and retail trade in recent years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Retail sales (Rmb billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>74.0</td>
</tr>
<tr>
<td>2010</td>
<td>88.9</td>
</tr>
<tr>
<td>2011</td>
<td>110.3</td>
</tr>
<tr>
<td>2012</td>
<td>134.0</td>
</tr>
<tr>
<td>2013</td>
<td>162.5</td>
</tr>
<tr>
<td>2014</td>
<td>182.5</td>
</tr>
</tbody>
</table>

Source: National Bureau of Statistics of China
Geranium in CHINA

Champions in value adding AND trade
SOUTH AFRICA

- Underperforming: could be changed
- Imports exceeds exports: WILL have to change
- Some initiative from several organizations
- Good academia and technology available
- Coordination improving
- Huge potential
- Will to do
South African Market – Overview

• South Africa has a well-developed chemical and consumer products manufacturing industry which has a demand for fragrances (mostly synthetic aroma chemicals) and has a well developed food processing industry demanding flavours.

• The current South African production of essential oils is approximately 2100 to 2900 tons per annum.
GERANIUM IMPORTS by US

1. Geranium oil

Production of geranium oil is dominated by Egypt and China, with prices for conventional oils fluctuating in the range US$100 to US$130/kg. Very small quantities of ‘rose’ geranium oil (bourbon oil) are produced in a number of African countries – South Africa, Madagascar, Rwanda – and this oil commands a significant price premium.

US Import of Geranium oil, 2009-2013, tonnes

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>9.7</td>
<td>13.8</td>
<td>10.2</td>
<td>14.7</td>
<td>16.1</td>
</tr>
<tr>
<td>China</td>
<td>6.2</td>
<td>8.0</td>
<td>44.7</td>
<td>21.7</td>
<td>8.4</td>
</tr>
<tr>
<td>France</td>
<td>3.4</td>
<td>5.2</td>
<td>3.6</td>
<td>5.2</td>
<td>6.8</td>
</tr>
<tr>
<td>South Africa</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>UK</td>
<td>2.2</td>
<td>2.7</td>
<td>1.1</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Others</td>
<td>0.7</td>
<td>0.8</td>
<td>4.6</td>
<td>2.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>22.2</td>
<td>30.7</td>
<td>64.3</td>
<td>45.0</td>
<td>33.6</td>
</tr>
</tbody>
</table>
# GERANIUM EXPORT VALUE

**US Import of Geranium oil, 2009-2013, unit value US$/kg**

<table>
<thead>
<tr>
<th>Country</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>104</td>
<td>129</td>
<td>208</td>
<td>130</td>
<td>98</td>
</tr>
<tr>
<td>China</td>
<td>98</td>
<td>133</td>
<td>98</td>
<td>103</td>
<td>130</td>
</tr>
<tr>
<td>France</td>
<td>81</td>
<td>126</td>
<td>162</td>
<td>123</td>
<td>89</td>
</tr>
<tr>
<td>South Africa</td>
<td>65</td>
<td>320</td>
<td>160</td>
<td>253</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>112</td>
<td>117</td>
<td>104</td>
<td>55</td>
<td>59</td>
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<tr>
<td>Others</td>
<td>110</td>
<td>173</td>
<td>81</td>
<td>97</td>
<td>110</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>129</td>
<td>119</td>
<td>113</td>
<td>105</td>
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</table>
Eucalyptus produced by 4 of 5 BRICS countries

<table>
<thead>
<tr>
<th>Country</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>451.9</td>
<td>677.6</td>
<td>590.1</td>
<td>572.0</td>
<td>684.8</td>
</tr>
<tr>
<td>Brazil</td>
<td>89.7</td>
<td>146.2</td>
<td>101.8</td>
<td>15.3</td>
<td>45.5</td>
</tr>
<tr>
<td>India</td>
<td>111.6</td>
<td>48.8</td>
<td>19.9</td>
<td>20.1</td>
<td>39.2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>14.4</td>
<td>24.4</td>
<td>12.1</td>
<td>14.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Australia(*)</td>
<td>9.0</td>
<td>3.6</td>
<td>15.1</td>
<td>24.3</td>
<td>9.9</td>
</tr>
<tr>
<td>France(*)</td>
<td>10.5</td>
<td>11.4</td>
<td>27.9</td>
<td>11.9</td>
<td>12.4</td>
</tr>
<tr>
<td>Germany(*)</td>
<td>8.8</td>
<td>27.1</td>
<td>1.1</td>
<td>5.9</td>
<td>9.8</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.8</td>
<td>11.6</td>
<td>1.9</td>
<td>0.8</td>
<td>8.6</td>
</tr>
<tr>
<td>Taiwan</td>
<td>34.2</td>
<td>3.6</td>
<td>0.0</td>
<td>5.4</td>
<td>10.8</td>
</tr>
<tr>
<td>Jamaica</td>
<td>11.6</td>
<td>15.6</td>
<td>0.2</td>
<td>17.1</td>
<td>13.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Others</td>
<td>3.3</td>
<td>2.9</td>
<td>4.6</td>
<td>17.5</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>747.0</td>
<td>972.8</td>
<td>774.7</td>
<td>704.7</td>
<td>858.3</td>
</tr>
</tbody>
</table>

2013: 12.7, 1.5

It very much typically in the
TURKEY

• Increasing value adding
• Focus on Rose but declining in production
• Other oils oregano, cumin, laurel, sage, etc.
• Excellent publications by academia and industry
• Coordination between EU – and ASIA
AUSTRALIA

• Buying from South Africa as their own supply exceeds demand in markets
• 8 year R&D plan very successful
• Dept of Agriculture on board
• Strong associations and work groups of crops

The Australian Essential Oil Company

Rural Industries Research & Development Corporation
Rest of Africa

• Rwanda and Kenya performs very well with Geranium and other agricultural products.

• Zimbabwe and Zambia picking up on production of vegetable oils

• Namibia and Botswana increasing vegetable oil production and value adding
• Egypt provides a large and diverse range of essential oils and extracts, more than 30 different products, with a total export value in the range US$35 to US$40 million/yr.

• However, over 60% of the value of exports is accounted for by 2 crops – geranium (typically around 45% of export totals, with production of around 150 to 180 tonnes valued at around US$15 million), and jasmine (typically around 20% of export totals, with production of around 3.3 to 3.5 tonnes valued at around US$6.5 million).

• Production of geranium oil has fluctuated widely over the last 5 to 10 years – both prices and production volumes, with production peaking at around 250 tonnes.

• Current production levels are around 150 to 170 tonnes, while long term averages are in the range 60 to 120 tonnes.
Geranium in EGYPT
Geranium production

- Production is dominated by Egypt and China.
- Combined annual production for Egypt and China is currently estimated in the range 280 to 350 tonnes, against a world total in the range 350 to 400 tonnes.
- Egypt has substantially increased its production into the range 200 to 230 tonnes.
- China has remained in the range 80 to 100 tonnes,
- India 25 to 35 tonnes
- Madagascar around 5 tonnes
- South African 5 to 10 tonnes
- Central and Southern African origins providing another 10 tonnes.
- Morocco, Congo, Ethiopia, Uganda, Kenya have made recent attempts to re-establish production.
- Production in China was significantly higher in the early 2000’s, in the range 80 to 230 tonnes, but production has decreased from these peaks as growers have changed to cultivation of other, more remunerative horticultural crops, and geranium has been pushed out to less developed areas.
- Egypt and China, significant commercial production of geranium oil only started 1970.
Geranium quality according to origin

- Geranium oil is complex in composition, and differs (is characteristic) by origin.
- The primary characteristics of the two major sources on the market:

  **Chinese type   Egyptian type**
  - Citronellol  32-43%  25-36%
  - Geraniol  5-12%  10-18%
  - 6,9 – Guaiadiene  3-7%  <= 0.5%
  - 10 – Epi λ Eudesmol  not detectable  3-6%

- The oil is difficult to copy with synthetic materials due to its complex composition, but also one where origin can be identified from its composition and is also difficult to disguise – with the result that oils can be priced by origin (quality).
MEXICO, COLUMBIA, CHILE, ARGENTINIA & PERU

• Production Increasing very fast
• Marketing aggressively
• New product development gets priority on economic basis
• “In a globalized world, it is essential to ensure high productivity at reasonable costs,” said Alessandro Carlucci, CNatura.
• Natura currently manufactures in Brazil and Argentina (through an outsourced factory). Starting in 2011, also produce shampoos, makeup and fragrances in Colombia and Mexico.
• Natura’s revenues in Argentina, Chile and Peru total R$255 million in 2010, with an increase of 17% over the previous year.
• According to Carlucci, the company is among the top three cosmetic suppliers in those countries.
## Top Twenty Essential Oils Produced in the World

<table>
<thead>
<tr>
<th>Essential Oil</th>
<th>Botanical Name</th>
<th>Volume (Tonnes)</th>
<th>Under Threat Cosmetics</th>
<th>Under Threat Biocides</th>
<th>Under threat Fragrance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange</td>
<td><em>Citrus sinensis</em></td>
<td>26000</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Cornmint</td>
<td><em>Mentha Arvensis</em></td>
<td>4300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eucalyptus</td>
<td><em>Euc. globulus</em></td>
<td>3728</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Citronella</td>
<td><em>Cym winterianus</em></td>
<td>2830</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Peppermint</td>
<td><em>Mentha piperita</em></td>
<td>2367</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemon</td>
<td><em>Citrus limon</em></td>
<td>2158</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Euc. Citriodora</td>
<td><em>Eucalyptus citriodora</em></td>
<td>2092</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Clove Leaf</td>
<td><em>Syzygium aromaticum</em></td>
<td>1915</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cedarwood (US)</td>
<td><em>Juniperus virginiana</em></td>
<td>1640</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Litsea cubeba</td>
<td><em>Litsea cubeba</em></td>
<td>1005</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sassafras (Brazil)</td>
<td><em>Ocotea pretiosa</em></td>
<td>1000</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Lime</td>
<td><em>Citrus aurantifolia</em></td>
<td>973</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Spearmint</td>
<td><em>Mentha spicata</em></td>
<td>851</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cedarwood (China)</td>
<td><em>Chamaecyparis funebris</em></td>
<td>800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lavandin</td>
<td><em>Lavandula intermedia</em></td>
<td>768</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sassafras (China)</td>
<td><em>Cinnamomum micranthum</em></td>
<td>750</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Camphor</td>
<td><em>Cinnamomum camphora</em></td>
<td>725</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Coriander</td>
<td><em>Coriandrum sativum</em></td>
<td>710</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Grapefruit</td>
<td><em>Citrus paradisi</em></td>
<td>694</td>
<td>X</td>
<td></td>
<td>X</td>
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<tr>
<td>Patchouli</td>
<td><em>Pogostemom cablin</em></td>
<td>563</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Product</td>
<td>Import Value € mln</td>
<td>Leading Suppliers</td>
<td>% of Total Import Value</td>
<td>Share %</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------</td>
<td>------------------------------------------------</td>
<td>-------------------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Orange</td>
<td>51,604</td>
<td>DC supply: Brazil (38%), Cuba (2%), South Africa (1%)</td>
<td>Other supply: USA (20%), The Netherlands (10%), Germany (8%)</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Lemon</td>
<td>47,548</td>
<td>DC supply: Argentina (50%), Mexico (4%), Brazil (3%)</td>
<td>Other supply: Italy (12%), USA (10%), UK (5%), Spain (3%)</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Peppermint</td>
<td>45,984</td>
<td>DC supply: India (12%), China (3%)</td>
<td>Other supply: USA (68%), UK (9%), France (3%), Germany (2%)</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Other mints</td>
<td>31,656</td>
<td>DC supply: India (22%), China (15%), Morocco (1%)</td>
<td>Other supply: USA (48%), UK (4%), Germany (4%), France (3%)</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Other citrus</td>
<td>31,119</td>
<td>DC supply: Brazil (5%), Cuba (5%), South Africa (3%)</td>
<td>Other supply: USA (27%), Italy (16%), The Netherl. (12%), UK (7%)</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Lavender</td>
<td>15,528</td>
<td>DC supply: China (3%), Georgia (1%)</td>
<td>Other supply: France (63%), USA (8%), Bulgaria (5%)</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Lime</td>
<td>15,323</td>
<td>DC supply: Mexico (33%), Peru (14%), Brazil (4%), Argentina (2%)</td>
<td>Other supply: USA (20%), UK (10%), Germany (6%)</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Bergamot</td>
<td>12,875</td>
<td>DC supply: Côte d’Ivoire (4%)</td>
<td>Other supply: Italy (59%), UK (10%), France (9%), Portugal (5%)</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Clove, niaouli etc</td>
<td>12,272</td>
<td>DC supply: Madagascar (26%), Comoros (18%), Mayotte (9%)</td>
<td>Other supply: France (19%), UK (3%), Singapore (2%), Germany (2%)</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Geranium</td>
<td>6,614</td>
<td>DC supply: Egypt (34%), China (24%), South Africa (2%)</td>
<td>Other supply: France (22%), UK (6%), Germany (3%), USA (2%)</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>Vetiver</td>
<td>6,315</td>
<td>DC supply: Haiti (56%), Indonesia (9%), India (2%)</td>
<td>Other supply: USA (12%), France (8%), The Netherlands (4%)</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Jasmine</td>
<td>4,487</td>
<td>DC supply: Egypt (44%), India (28%), Madagascar (1%)</td>
<td>Other supply: France (15%), United Arab Emirates (3%), Spain (2%)</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td><strong>Total ess. oils</strong></td>
<td><strong>501,235</strong></td>
<td>DC supply: China (6%), Brazil (5%), Argentina (5%), India (5%)</td>
<td>Other supply: USA (19%), France (10%), UK (5%), Italy (5%)</td>
<td>41%</td>
<td></td>
</tr>
</tbody>
</table>
## SADC EXPORTS

SADC countries’ exports of essential oils in 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>2000 (US$’000)</th>
<th>2005 (US$’000)</th>
<th>% Growth,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>2</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Madagascar</td>
<td>6,508</td>
<td>7,226</td>
<td>2.12</td>
</tr>
<tr>
<td>Malawi</td>
<td>0</td>
<td>84</td>
<td>252.06</td>
</tr>
<tr>
<td>Namibia</td>
<td>655</td>
<td>38</td>
<td>-43.53</td>
</tr>
<tr>
<td><strong>South Africa</strong></td>
<td><strong>11,504</strong></td>
<td><strong>18,431</strong></td>
<td><strong>9.88</strong></td>
</tr>
<tr>
<td>Swaziland</td>
<td>70</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td>0</td>
<td>10</td>
<td>193.55</td>
</tr>
</tbody>
</table>

Source: Wits
# SADC IMPORTS

SADC countries’ imports of essential oils in 2005
Imports (US$’000)

<table>
<thead>
<tr>
<th>Country</th>
<th>2000</th>
<th>2005</th>
<th>% Growth, 2000-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>215</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Lesotho</td>
<td>37</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Madagascar</td>
<td>37</td>
<td>75</td>
<td>14.96</td>
</tr>
<tr>
<td>Malawi</td>
<td>87</td>
<td>179</td>
<td>15.51</td>
</tr>
<tr>
<td>Mauritania</td>
<td>11</td>
<td>196</td>
<td>79.56</td>
</tr>
<tr>
<td>Mozambique</td>
<td>329</td>
<td>346</td>
<td>1.01</td>
</tr>
<tr>
<td>Namibia</td>
<td>1,244</td>
<td>1,174</td>
<td>-1.15</td>
</tr>
<tr>
<td><strong>South Africa</strong></td>
<td><strong>6,554</strong></td>
<td><strong>9,698</strong></td>
<td><strong>8.15</strong></td>
</tr>
<tr>
<td>Swaziland</td>
<td>8,823</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td>751</td>
<td>2,465</td>
<td>26.84</td>
</tr>
<tr>
<td>Zambia</td>
<td>166</td>
<td>662</td>
<td>31.88</td>
</tr>
</tbody>
</table>

Source: Wits
Main Oil Crops cultivated in SA

STEAM DISTILLED
• Buchu
• Eucalyptus
• Tagettes
• Geranium
• Rosemary
• Tea tree
• Lippia
• Lavender
• Mint
• Eriocephalus
• Lemon grass
• Artemisia
• Helichrysum
• Leonotis
• Coleonema

PRESSED
• Citrus
• Marula
• Baobab
• Avocado
• Macadamia
• Grape seed
• Rose hip
• Kalahari Melon
• Passion Fruit
• Ximenia
• Trichelia
• Manketti/Mongono
CURRENT PRODUCTION IN SA

Cottage industry
Commercial farmers
Community projects
Contract farming
Co-operating producers
Mango's and geranium
Classic indigenous plants already in products

- Rooibos
- Honey bush
- Buchu
- *Aloe ferox*
- Marula
- Baobab
- *Kigelia* - sausage tree
- *Pelargonium* – rose geranium
- Others
## Latest requests for substitutes of classic ingredients

<table>
<thead>
<tr>
<th>Classic</th>
<th>New indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shea butter</td>
<td><em>Trichilia emetica</em> and <em>T. dregeana</em> (Mafura), <em>Schinziophyton rautanenii</em> (Manketti/Mongongo)</td>
</tr>
<tr>
<td>Olive oil</td>
<td><em>Sclerocarya birrea</em> (Marula), <em>Citrillus lanatus</em> (Kalahari Melon (Karkoer, Tsamma, Makataan)</td>
</tr>
<tr>
<td>Palm oil</td>
<td><em>Schinziophyton rautanenii</em> (Manketti/Mongongo) <em>Trichilia emetica</em> and <em>T. dregeana</em> (Mafura)</td>
</tr>
<tr>
<td>Argan oil</td>
<td><em>Adansonia digitata</em> (Baobab,) <em>Citrillus lanatus</em> (Kalahari Melon (Karkoer, Tsamma, Makataan), <em>Ximenia africana and X. americana</em> (Suurpruim, Sour plum)</td>
</tr>
<tr>
<td>Almond</td>
<td><em>Ximenia africana and X. americana</em> (Suurpruim) <em>Sclerocarya birrea</em> (Marula), <em>Citrillus lanatus</em> (Kalahari Melon (Karkoer, Tsamma, Makataan)</td>
</tr>
<tr>
<td>Avocado</td>
<td><em>Sclerocarya birrea</em> (Marula), <em>Adansonia digitata</em> (Baobab,)</td>
</tr>
</tbody>
</table>
Cosmetics : Nut case
GERANIUM IN LIMPOPO MINING AREA
PARTNERSHIPS BETWEEN PRODUCER AND PROCESSOR
The race for African Oils

• Marula is sold before it is pressed
• In Malawi, Ghana and Mozambique, the baobab and mafura supply chains to increase market access and create linkages between local producers and large international organizations.
• The number of international buyers for baobab and mafura products in the two countries has been rising rapidly
• Baobab oil is now included in numerous cosmetic formulations, whilst we continue to develop baobab powder as a nutritional ingredient.
• In the future, Mafura may offer an alternative to palm oil and contribute to the regeneration of an industry in Mozambique
Time to catch up

- SAEOPA formed 2000
- 18 years to Australian Producers Association
- 25 years to America
- 45+ years to India
- Ages to
  - Egypt, China,
  - Turkey, Spain
Assessing Area
The Tagette team
Harvesting and collecting
The distillation unit
Coordinating sites, harvesters and distilling process
Collecting oil
Filtering and weighing
Analysing the oil by GC
Storing the oil
A VIABLE ESSENTIAL OILS INDUSTRY IN SOUTH AFRICA

FRIDGE study
Fund for Research into Industrial Development, Growth and Equity

the dti
Department: Trade and Industry
REPUBLIC OF SOUTH AFRICA

Industrial Development Corporation

National Economic Development and Labour Council

Institute of Natural Resources

K M Swanepoel 2010
Contents of production guides

- Background on the specific crop
- Production areas
- Climatic requirements
- Soil requirements
- Propagation methods
- Soil preparation and management
- Field lay out and design
- Planting methods
- Fertilization
- Irrigation
- Weed, disease and pest control
- Harvesting
- Distillation
- Packaging and Storage
- Quality control
- Marketing
FRIDGE
Chemicals Sector Summit
Preparation:

Information System Strategy
(Step 4)

23 March 2005

STUDY INTO THE ESTABLISHMENT OF AN AROMA AND FRAGRANCE FINE CHEMICALS VALUE CHAIN IN SOUTH AFRICA (TENDER NUMBER T79/07/03)

FINAL REPORT
(Submission Date: 15 September 2004)

Part Four-
Report: Aroma Chemicals Derived from Essential Oils

STUDY CONDUCTED BY:

Triumph Venture Capital (Pty) Limited
In conjunction with Dr Lorraine Thiel and Mr Fadii Hendricks ("the Consultant")
A STUDY INTO AND PREPARATION OF A STRATEGIC DEVELOPMENT PLAN FOR THE SOUTH AFRICAN ESSENTIAL OILS INDUSTRY
KARWIL CONSULTANCY

REPORT ON

Participatory Assessment of Nkandla Essential Oils Value Chain

REVIEW OF THE ESSENTIAL OILS INDUSTRY IN SOUTH AFRICA

Report No: 8737/8657/1/Z

Submitted to:
Department of Water Affairs and Forestry
157 Schoeman Street
Pretoria
0002

October 2007

DISTRIBUTION:

3 Copies - Department of Water Affairs and Forestry
1 Copy - 8738

December 2006
# A Profile of the South African Essential Oils Market Value Chain

**2010**

**Directorate Marketing**
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Arcadia
0007
Tel: 012 319 8455/6
Fax: 012 319 8131
Email: DM@daff.gov.za
www.daff.gov.za

---

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Contact Person</th>
<th>Telephone Number</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Val-U-Flavours (Pty) Ltd</td>
<td>Box 10053, Belhar 7507</td>
<td>Rurik McKaiser</td>
<td>+27 (0) 21 981 7892</td>
<td><a href="mailto:rurik@vuf.co.za">rurik@vuf.co.za</a></td>
</tr>
<tr>
<td>Von Holy Consulting CC</td>
<td>Box 4449, Edenvale 1610</td>
<td>Corene Von Holy</td>
<td>+27 (0) 83 267 6004</td>
<td><a href="mailto:yopholy@worldonline.co.za">yopholy@worldonline.co.za</a></td>
</tr>
<tr>
<td>Afriplex Flavours &amp; Fragrances (Pty) Ltd</td>
<td>Box 3186, Paarl 7620</td>
<td>Grant Mompole</td>
<td>+27 (0) 21 872 4976</td>
<td><a href="mailto:grant@afriplex.co.za">grant@afriplex.co.za</a></td>
</tr>
<tr>
<td>Agrana Fruit South Africa (Pty) Ltd</td>
<td>Box 143, Bergedorf 7864</td>
<td>Philippe Gomez</td>
<td>+27 (0) 21 705 0210</td>
<td>菲律賓果實南非有限公司 (email)</td>
</tr>
<tr>
<td>Bidfood Technologies (Pty) Ltd</td>
<td>Box 37200, Chempet, 7442</td>
<td>John Morris</td>
<td>+27 (0) 21 527 5020</td>
<td><a href="mailto:John.morris@cookingnational.co.za">John.morris@cookingnational.co.za</a></td>
</tr>
<tr>
<td>Cargill Flavor Systems (RSA) (Pty) Ltd</td>
<td>Box 354, Table View 7439</td>
<td>Nicole Lombard</td>
<td>+27 (0) 21 556 1512</td>
<td><a href="mailto:Nicole.lombard@cargill.com">Nicole.lombard@cargill.com</a></td>
</tr>
<tr>
<td>Carst &amp; Walker (Pty) Ltd</td>
<td>Box 87710, Houghton 2041</td>
<td>Gloria Ford</td>
<td>+27 (0) 11 489 3631</td>
<td><a href="mailto:Gloria.ford@carst.co.za">Gloria.ford@carst.co.za</a></td>
</tr>
</tbody>
</table>
Keys to success

• Volume
• Quality control
• Value adding
• Packaging
• Labelling
• Training
• Networking
• Technical support
• Strategic partners in business
CONTACT NUMBERS

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  – alberts.willem@gmail.com
  – karwil888@gmail.com
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