

**E**

**Rose Geranium Oil**



**Botanical name**  
Cultivated from two or three of the following: *P. radens*, *P. capitatum* and *P. graveolens*, resulting in the hybrid Pelargonium var Rose

**Use**  
Perfumery, flavouring, aromatherapy and pharmaceutical industries

**Habitat**  
Well-drained soil in open areas with a moderate climate, frost and cold sensitive

**Distribution in SA**  
Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape and Western Cape

**Global producers**  
Australia, China, Egypt, India, Israel, Rwanda, Madagascar and USA

**Type of crop**  
Herbaceous plant

**Part of specie used for oil**  
Leaves and young stems

**Cultivation method**  
Cultivated in open lands and tunnels

**Harvesting method**  
Hand cut with secateurs or mechanical

**Harvesting frequency**  
2-4 harvests per year

**Unique feature**  
High in demand as substitute for rose oil as a fragrance and also as flavourant

**Environmental threats**  
Root and soil borne diseases

**V**

**Baobab Oil**



**Botanical name**  
*Adansonia digitata*

**Use**  
Cosmetics, food industry

**Habitat**  
Hot, dry woodland on stony, well-drained soils, in frost-free areas that receive low rainfall

**Distribution in SA**  
Limpopo

**Global producers**  
Botswana, Mozambique, Namibia and other tropical African countries

**Type of crop**  
Tree, fruit

**Part of specie used for oil**  
Fruit and seed

**Cultivation method**  
Natural distribution only, not commercially cultivated

**Harvesting method**  
Collection of ripe and dried fruit after 1-2 years

**Harvesting frequency**  
Once a year, in season

**Unique feature**  
Drought resistant, long-lasting seed (4 years)

**Environmental threats**  
Trees are dying for inexplicable reasons

**V**

**Kalahari Melon Oil**



**Botanical name**  
*Citrullus lanatus*

**Use**  
Cosmetics, food and pharmaceutical

**Habitat**  
Any open land, pioneer plant in previously cultivated areas, e.g. former maize or vegetable fields

**Distribution in SA**  
All provinces

**Global producers**  
Asia, China and Egypt

**Type of crop**  
Creeper, fruit

**Part of specie used for oil**  
Fruit and seed

**Cultivation method**  
Natural distribution and planted in rows

**Harvesting method**  
Collection of fruit, fresh or up to 2 years old

**Harvesting frequency**  
Once, or twice a year if cultivated

**Unique feature**  
Long life of fruit in seed and seed on shelf

**Environmental threats**  
None known

**V**

**Manketti/Mongongo Oil**



**Botanical name**  
*Schinziophyton rautanenii*

**Use**  
Cosmetics and hair products

**Habitat**  
Deep sands of the Kalahari Desert and along walk ways of elephants

**Distribution in SA**  
Limpopo

**Global producers**  
Angola, Botswana, Chad, Malawi, Mali, Mozambique, Namibia, Niger, Somalia, Sudan, Zambia and Zimbabwe

**Type of crop**  
Tree, fruit

**Part of specie used for oil**  
Fruit and seed

**Cultivation method**  
Natural distribution only, not commercially cultivated

**Harvesting method**  
Collection of ripe fruit

**Harvesting frequency**  
Once a year, in season

**Unique feature**  
Drought resistant  
Planted tree will take 25 years to reach maturity and to bear fruit

**Environmental threats**  
None known

**V**

**Marula Oil**



**Botanical name**  
*Sclerocarya birrea*

**Use**  
Cosmetics

**Habitat**  
Frost and cold sensitive, abundant in grasslands and woodlands

**Distribution in SA**  
KwaZulu-Natal, Limpopo and Mpumalanga

**Global producers**  
Botswana, Eswatini, Namibia and Zimbabwe

**Type of crop**  
Tree, fruit

**Part of specie used for oil**  
Fruit and seed

**Cultivation method**  
Mainly natural distribution, some efforts to establish orchards

**Harvesting method**  
Collection of current season's ripe fruit

**Harvesting frequency**  
Once a year, in season

**Unique feature**  
Male and female plants exist

**Environmental threats**  
Competition with animals for food in times of drought

**V**

**Sour Plum Oil**



**Botanical name**  
*Ximenia Americana* and *X. var X. caffra/natalensis*

**Use**  
Cosmetics

**Habitat**  
Low altitudes, savannahs, dry woodlands, dry forests, and along coastal areas or on river banks

**Distribution in SA**  
KwaZulu-Natal, Limpopo and Mpumalanga

**Global producers**  
Botswana, Eswatini, Namibia, Tanzania and Zambia, as well as Australasia, Central and South America

**Type of crop**  
Tree, fruit

**Part of specie used for oil**  
Fruit and seed

**Cultivation method**  
Natural distribution only, not commercially cultivated

**Harvesting method**  
Collection of ripe fruit

**Harvesting frequency**  
Once a year, in season

**Unique feature**  
Drought resistant

**Environmental threats**  
None known



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# Indigenous South African Essential and Vegetable Oils

Characteristics and geographic location of species in high demand

## Introduction

South Africa is the third-most biologically diverse country in the world and its preservation is high on the government's agenda. One of the industries/value chains identified as a priority sector is the essential and vegetable oils, based on its comparative advantage of seasonable supply, export potential, inclusiveness and environmentally sustainable characteristics.

It is widely accepted that South Africa has many indigenous plants producing essential and vegetable oils that have potential commercial value. However, to exploit these commercially on an international scale, the industry needs to ensure sustainability of supplied quantity and consistent quality.

Based on the export potential and comparative advantage, the dti, SECO and UNIDO have developed a project focusing on strengthening the quality compliance capacity of the essential and vegetable oils value chain in South Africa with the framework of the Global Quality and Standards Programme – South Africa (GQSP-SA).

## Essential and Vegetable Oils Focus

The GQSP-SA, in collaboration with the Southern African Essential Oil Producers' Association (SAEOPA), has identified 5 essential and 5 vegetable oils with high market demand for the Cosmetic, Food and Pharmaceutical Sectors. All of these species have been identified by the Department of Environment, Forestry and Fisheries as high-impact value chains that are of strategic importance to South Africa due to their potential in generating GDP and new employment.

## Essential Oils

**E** Buchu Oil

**E** Cape Chamomile Oil  
(Snow Bush)

**E** Helichrysum Oil  
(Everlasting, Impepho)

**E** Lippia Oil  
(Lemon bush)

**E** Rose Geranium Oil

## Vegetable Oils

**V** Baobab Oil

**V** Kalahari Melon Oil

**V** Manketti/  
Mongongo Oil

**V** Marula Oil

**V** Sour Plum Oil



To strengthen the essential and vegetable oils value chain systematically, it is important to know where in South Africa the species are grown, as well as their respective characteristics. This profile of the species will facilitate the development of appropriate technical assistance to SMEs based on the type of habitat in which the species grow, and the map is unique, providing public knowledge for the industry and any other stakeholder interested in cultivation and/or harvesting of these species to produce essential and vegetable oils.

## Map of Essential and Vegetable Oil production in South Africa

Most essential oil crops produced in South Africa are grown mainly in Eastern Cape, KwaZulu-Natal, Lowveld regions of Limpopo and Mpumalanga, and Western Cape. The South African production season is different to that of the Northern Hemisphere competitors, giving a seasonal comparative advantage. The map visually depicts the locations in which the respective essential and vegetable oils are grown in South Africa, including habitat of that region.



## Type of Oils

### Essential Oils

**E**  
Buchu Oil



**Botanical name**  
*Agathosma betulina* and  
*Agathosma crenulata*

**Use**  
Flavouring, fragrance  
and pharmaceutical

**Habitat**  
Fynbos vegetation, winter  
rainfall areas, stony soil

**Distribution in SA**  
Western Cape only

**Global producers**  
None so far, Australia has identified it as potential for research and development

**Type of crop**  
Small shrub

**Part of specie used for oil**  
Leaves and young stems

**Cultivation method**  
Wild grown and cultivated in open lands

**Harvesting method**  
Mostly by hand using secateurs

**Harvesting frequency**  
1 harvest per year

**Unique feature**  
Complex chemistry difficult to copy

**Environmental threats**  
Fires and droughts

**E**  
Cape Chamomile Oil



**Botanical name**  
*Eriocephalus species*, *E. punctulatus* and *E. africanus*, *E. comosum* and *E. racemosus*

**Use**  
Perfumery, flavouring,  
aromatherapy and pharmaceutical industries

**Habitat**  
Found naturally in colder,  
mountainous areas

**Distribution in SA**  
Found naturally in Eastern Cape, with some species in the Free State and Western Cape

**Global producers**  
None of indigenous species, but of classic type in Europe and Turkey

**Type of crop**  
Small shrub

**Part of specie used for oil**  
Leaves and young stems

**Cultivation method**  
Wild grown and cultivated in open lands

**Harvesting method**  
Harvested by hand using secateurs or sickles

**Harvesting frequency**  
1 harvest per year

**Unique feature**  
High-value, blue-coloured oil

**Environmental threats**  
Fires and droughts

**E**  
Helichrysum Oil



**Botanical name**  
*H. splendendum/odoratissimum/ etc.*

**Use**  
Mood enhancement plant and perfumery

**Habitat**  
Predominantly in grasslands, but also mountainous and coastal areas, cold tolerant

**Distribution in SA**  
Limpopo, and recently cultivated in Eastern Cape

**Global producers**  
Asia, Europe (France, Italy and Spain) and Madagascar

**Type of crop**  
Small herbaceous plant

**Part of specie used for oil**  
Fresh and dried leaves and flowers

**Cultivation method**  
Wild grown and cultivated in open lands

**Harvesting method**  
Cut by hand with secateurs or sickles

**Harvesting frequency**  
1 harvest per year

**Unique feature**  
Perceived as a very popular mood-changing plant

**Environmental threats**  
Fires and droughts

**E**  
Lippia Oil



**Botanical name**  
*Lippia javanica*, *L. rehmani* and *L. scaberrima*

**Use**  
Ingredient for insect repellent, tea, pharmaceutical, research for insecticides and fungicides

**Habitat**  
Found in open areas, river banks and forest margins in summer rainfall regions, cold tolerant

**Distribution in SA**  
Eastern Cape, Limpopo, Mpumalanga and Western Cape

**Global producers**  
Botswana, Eswatini, Ghana, Kenya, South America

**Type of crop**  
Medium-sized shrub

**Part of specie used for oil**  
Leaves preferred

**Cultivation method**  
Wild grown and cultivated in open lands

**Harvesting method**  
Harvested by hand using sickles

**Harvesting frequency**  
2 harvests per year if in good rainfall areas

**Unique feature**  
Repels insects

**Environmental threats**  
None