

Cancer Association of South Africa (CANSA)



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Fact Sheet on Honeybush Tea

Introduction

Cyclopia, better known by the common name Honeybush, or 'Heuningbos' in Afrikaans, is a genus of flowering plants in the legume family, *Fabaceae*, of the subfamily *Faboideae*. The description was published by Étienne Pierre Ventenat in 1808. The name *Ibbetsonia*, published two years later, is regarded as a synonym of this.

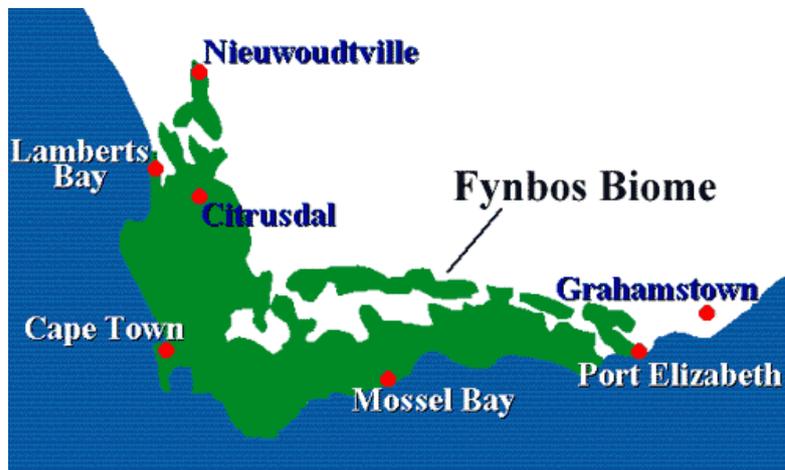


The Honeybush plant grows only in small areas in the southwest and southeast of South Africa and has many similarities with Rooibos Tea.

[Picture Credit: Honeybush]

Honeybush is so named because the flowers smell of honey. The taste of Honeybush Tea is similar to that of Rooibos Tea but a little sweeter. In some rural districts it used to be common practice to keep a kettle of Honeybush Tea infusing on the stove ready for drinking while scenting the whole house – unlike tea prepared from *Camellia sinensis*, the product does not turn bitter with long-term simmering.

The plant is a shrub of the Fabaceae family (Leguminosae) that grows in the fynbos botanical zone (biome), indicated in green in the map on the right. It is a narrow region along the coast, bounded by mountain ranges. Fynbos is a vegetation type, characterised mainly by woody plants with small leathery leaves (fynbos is from the Dutch, meaning fine leaved plants).



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Malongane, F., McGaw, L.J., Debusho, L.K. & Mudau, F.N. 2020.

“South Africa has a traditional heritage of using indigenous herbal teas, and the demand for herbal teas motivated by the functional health benefits has far exceeded global supply. This has led to worldwide interest in the sensory characteristics and volatile compound characterisation of herbal drink formulations. The objective of this study was to investigate the descriptive sensory analysis and volatile compounds of bush, special, honeybush and rooibos tea and the blend of bush tea with special, honeybush and rooibos, respectively. The trained sensory panel scored each tea sample for aroma, taste, aftertaste and mouthfeel attributes using sensory evaluation practices. Compound identification was performed by gas chromatography connected to a mass spectrometer (GC-MS). The results of the study demonstrated that rooibos and honeybush tea had an overall sweet-caramel, honey-sweet, perfume floral and woody aroma while bush tea and special tea depicted green-cut grass, dry green herbal and astringent/dry mouth feel. The GC-MS analyses depicted the following compounds 2-furanmethanol, 2-methoxy-4-vinylphenol, D-limonene, dihydroactinidolide, linalool, (E,E)-2,4-heptadienal, and phytol. The blending of bush tea with rooibos and honeybush tea toned down its astringent mouth feel. Compounds identified in this study may be useful markers for potential herbal tea sensory characteristics.”

Varieties of Honeybush Tea

There are dozens of species of Honeybush Tea found in the wild, of which mainly 4 or 5 are in widespread home or commercial use. These are:

- *Cyclopia intermedia*, known as 'bergtee' (mountain tea), found between Port Elizabeth and the edge of the Langkloof
- *Cyclopia genistoides*, known as 'kustee' (coastal tea), found mostly in the Western Cape near Yzerfontein and Darling and also thriving in the South Cape if cultivated
- *Cyclopia maculata*, grown in the Outeniqua area near George
- *Cyclopia sessiliflora*, known as 'Heidelberg-tee', named after the town Heidelberg in South Africa, where it grows in the local mountain range
- *Cyclopia Subternata*, known as 'vleitee' (marshland tea) or 'valleitee' (valley tea)

Some species can be cultivated whereas others have resisted all attempts at cultivation and must be harvested in the wild. It is not always easy to discover what the seeds need to enable them to germinate; some kinds bear elaiosomes (see below) and might be dependent on the services of particular ants or birds.

Cyclopia intermedia (mountain tea) is one of the teas that is harvested in the Kouga mountains where it grows naturally. Mountain tea regenerates within three years after harvesting or devastation by fire; consequently less than one third of the mountain yield is available for harvesting each year by rotation.

[Picture Credit: Cape Honeybush]

Elaiosomes are fleshy structures that are attached to the seeds of many plant species. The elaiosome is rich in lipids and proteins, and may be variously shaped.



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Many plants have elaiosomes that attract ants, which take the seed to their nest and feed the elaiosome to their larvae. After the larvae have consumed the elaiosome, the ants take the seed to their waste disposal area, which is rich in nutrients from the ant frass and dead bodies, where the seeds germinate. This type of seed dispersal is termed *myrmecochory* from the Greek 'ant' (myrmex) and 'dispersal' (kore).

Nutritional Facts of Honeybush Tea

According to the Department of Chemistry of the University of the Free State, Honeybush Tea contains the following nutritional components:

Nutrients	Function in Body	Mg Per 240ml
Iron (Fe)	Essential for transport of oxygen in the blood	0,3mg
Potassium (K)	Necessary for metabolic processes	0,01mg
Calcium (Ca)	Necessary for strong teeth and bones	0,01mg
Copper (Cu)	Necessary for different metabolic processes	0,003mg
Zinc (Zn)	Necessary for normal growth and development and healthy skin	0,015mg
Magnesium (Mg)	Necessary for healthy nervous system and for other metabolic processes	0,002mg
Manganese (Mn)	Necessary for metabolic processes and for bone growth and development	0,11mg
Sodium (Na)	Necessary for fluid and acid-base balance	1,5mg

Further research by the Department of Chemistry of the University of the Free State indicated that substantial amounts of (+)-pinitol is present in Honeybush tea. Pinitol is used as an expectorant and also has anti-diabetic activity. (Bates, *et al.*, 2000).

Health Benefits of Honeybush Tea

Honeybush Tea is made as a simple herbal infusion. One of its early recognised benefits as a tea substitute is its lack of caffeine, which makes it especially suited for night time consumption and for those who experience nervousness and want to avoid ordinary tea. As a result, it had a reputation as a calming beverage, though it may not have any specific sedative properties. It also has a low content of tannins, so it does not make a highly astringent tea, which can be a problem with some grades of black or green tea or when ordinary tea is steeped too long.



[Picture Credit: Honeybush Health]

The traditional use of the tea for treating cough may be explained, in part, by its content of pinitol, a modified sugar (a methyl group replaces hydrogen in one

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position of glucose) that is similar to inositol. Pinitol, named for its major source, pine trees, is also found in the leaves of several legume plants; it is an expectorant. Pinitol is also of interest for apparent blood-sugar lowering effects, as demonstrated in laboratory animal studies (it may increase the effects of insulin), and is being considered as a drug for diabetes. Honeybush also contains flavones, isoflavones, coumestans, luteolin, 4-hydroxycinnamic acid, polyphenols, and xanthenes. These ingredients serve as antioxidants and may help lower blood lipids.

The isoflavones and coumestans are classified as phytoestrogens, used in the treatment of menopausal symptoms, an application for which honeybush has recently been promoted. The flavones and isoflavones of Honeybush are similar to those in soy, another leguminous plant, also used in treatment of menopausal symptoms.

Luteolin is the primary yellow pigment of the flowers and has been used historically as a dye (most often obtained for this purpose from the plant called Dyer's Weld, *Reseda luteola*). (Smith, *et al.*, 2001; van der Walt, 2000; Bates, *et al.*, 2000; Kamara, *et al.*, 2003; Marnewick, *et al.*, 2003; Chiechie, 1999).

Honeybush Tea has no negative side effects - Honeybush tea, grown in South Africa, has no negative side effects whatsoever. Other key health benefits of Honeybush Tea include:

- Caffeine-free
- Very low tannin levels
- It is very soothing and calms the central nervous system
- Eases constipation
- Can be applied topically to skin irritations
- Full of antioxidants to guard against free radical attack
- Contains polyphenols that boost the immune system and to help reduce the degenerative effects of lifestyle diseases
- Is a source of iron, potassium, calcium, copper, zinc, magnesium, manganese, and sodium

Properties that enhances health

Honeybush Tea possesses numerous properties that enhance the health of people that use it: Isoflavones & Coumestans

The dietary phyto-oestrogen-hormone-dependant process. This is advantageous for:

- Regulation of menstruation cycles
- Prevention of breast, prostate and Uterus cancer
- Reduces the risk of Osteoporosis
- Anti-fungal properties
- Anti-virus properties
- Anticholesterolemic-lowers cholesterol levels
- Hypolipemic-lowers fat levels
- Anti-microbial
- Anti-oxidant

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Specific Luteolin is anti-spasmodic and anti-oxidant. 4-Hydroxycinnomic acid is anti-fungus and Antihepatotoxic.

Xanthones

- Anti-inflammatory
- Anti-hepatotoxic – works against kidney poisoning
- Anti-virus
- Anti-diarrhoea
- Anti-fungus
- Anti-oxidants
- Anti-depressant

Flavones

- Vitamin-type activity (mixture of eriodictyol and hesperidien)
- Anti-oxidants
- Anti-microbial
- Anti-virus
- Anti-inflammatory
- Spasmolytic
- Diuretic (increases Urinating)
- Non-feeding sweeteners

Research on Honeybush Tea has only started recently in the 1990's and already great progress was made on testing and researching the medicinal values of this tea. De Nysschen, *et al* found three major phenolic compounds in Honeybush tealeaves in 1995: a xanthone c-glycoside, mangiferin and O-glycosides of hesperitin and isosakuranetin, two flavanones. (Department of Chemistry, University of the Free State).

Honeybush Tea improves the immune system - Honeybush Tea is a natural source of many antioxidants, including major phenolic compounds. Phenolic compounds play a significant role in protecting the immune system from oxidative stress, which could damage cells, according to a 2013 review published in "Nutrients." Phenolic compounds also modulate the immune system, which helps the body's natural defenses against infections. This may be responsible for the belief that Honeybush Tea is effective in relieving colds, influenza and other diseases (Livestrong).

[Picture Credit: Coarse Honeybush]

Honeybush Tea protects from inflammatory diseases - evidence also exists that the phenolic compounds in Honeybush Tea are able to reduce inflammation and prevent the development of chronic inflammatory diseases. Phenolic compounds have a direct effect on down-regulating the body's inflammatory response, as demonstrated in inflamed intestinal cells similar to those



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seen in inflammatory bowel disease, according to a December 2010 study published in “Chemico-Biological Interactions.” This makes Honeybush Tea effective in providing short-term inflammatory relief as well as helping to prevent or ameliorate inflammatory diseases like IBD or Crohn's disease (Livestrong).

Women's Health - Honeybush Tea is valuable to women's health, according to Montego Rooibos Herbal Tea, because it helps regulate periods and reduces the risk of osteoporosis and cancer of the breast and uterus.

Good for gastrointestinal health – people suffering from digestive problems can benefit from drinking Honeybush Tea. It can be taken to alleviate heartburn, nausea and constipation. It can also help cure constipation. It treats abdominal cramps and colic pain in infants.

Aiuwon, O.R., Aveleso, A.O. & Adelofaiu, G.A. 2018.

Diabetes mellitus is a metabolic disease that can lead to high morbidity, mortality and long-term complications. Available treatment strategies, which are mainly based on treating hyperglycemia, with insulin and other pharmacological agents are not completely efficient and can even lead to development of unwanted side effects. Scientific evidence suggests that bioactive compounds from teas and other plant-based foods, which are known source of natural antioxidants, could be an attractive strategy to preferentially treat and manage type 2 diabetes mellitus (T2DM) and thus, have significant therapeutic implications. In this review, we attempt an in-depth analysis and discussion of the current progress in our understanding of the antidiabetic potential of two commercialized South Africa herbal tisanes-Rooibos and Honeybush and their polyphenols.

Choi, S.Y., Hong, J.Y., Ko, E.J., Kim, B.J., Hong, S.W., Lim, M.H., Yeon, S.H. Son, R.H. 2018.

BACKGROUND: Oxidative stress and photodamage resulting from ultraviolet radiation exposure play key roles in skin aging. Fermented *Cyclopia intermedia*, which is used to brew honeybush tea, exerts antioxidant and anti-wrinkle effects by inhibiting reactive oxygen species production and downregulating matrix metalloproteinase activity.

OBJECTIVES: This randomized, double-blinded, placebo-controlled study aimed to evaluate the efficacy and safety of fermented honeybush(*Cyclopia intermedia*) extract (HU-018) for skin rejuvenation.

METHODS: 120 Korean subjects with crow's feet wrinkles were randomized to receive either low-dose extract (400 mg/day), high-dose extract (800 mg/day), or placebo (negative control, only dextran) for 12 weeks. Wrinkles were evaluated using JANUS[®] and PRIMO pico[®]. Skin elasticity, hydration and transepidermal water loss were measured.

RESULTS: Global skin wrinkle grade was significantly improved in both low-dose and high-dose groups compared to placebo group, as well as for skin hydration and elasticity. Both the low- and high-dose groups showed significantly decreased TEWL compared to the placebo group. There were no adverse effects during the entire study period.

CONCLUSION: Our data indicate that HU-018 is effective for improving skin wrinkles, elasticity, and hydration. Therefore, daily supplementation with fermented honeybush could be helpful for protecting against skin aging.

Anti-glycaemic Effects of Honeybush Tea

Xiao, X., Erukainure, O.L., Beseni, B., Koorbanally, N.A. & Islam, M.S. 2020.

“The antioxidant, antidiabetic, and anti-obesogenic potentials of different extracts (dichloromethane, ethyl acetate, ethanol, and aqueous) of the red honeybush (*Cyclopia genistoides*) tea were investigated in vitro and ex vivo. All extracts exhibited significant scavenging and reducing power activities, with the aqueous and ethyl acetate extracts being the most potent. In vitro antidiabetic analysis revealed the extracts to be potent inhibitors of α -glucosidase and lipase activities. All extracts increased catalase and SOD activities, and glutathione level in oxidative pancreatic injury. GC-MS analysis revealed the presence of fatty acids, fatty acid ester, phytols, sterols, saccharide, ketones, and triterpenes. These results imply that the sequential extracts of honeybush tea (particularly the aqueous and ethyl acetate extracts) may not only exhibit antioxidant potentials but also mediate anti-hyperglycemia activities by inhibiting lipid and carbohydrate digestion. PRACTICAL APPLICATIONS: Red honeybush tea is enjoyed widely in South Africa and around the world due to its no caffeine and very low tannin content, as well as many healthcare attributes. There are however no scientific reports for its sequential extraction of different solvents on antidiabetic effects. The different extracts of honeybush tea (particularly the aqueous and ethyl acetate extracts) inhibited lipid and carbohydrate digestive enzymes linked to type 2 diabetes (T2D), as well as modulate oxidative pancreatic injury. These findings will promote its utilization as a potential nutraceutical in the management of diabetes and its complications.”

Downsides of Honeybush Tea

None whatsoever as no negative side effects have ever been reported, therefore, Honeybush Tea can be drunk freely. If Honeybush is brewed or boiled for longer than ten minutes, the antioxidant activity becomes even much higher.

Medical Disclaimer

This Fact Sheet is intended to provide general information only and, as such, should not be considered as a substitute for advice, medically or otherwise, covering any specific situation. Users should seek appropriate advice before taking or refraining from taking any action in reliance on any information contained in this Fact Sheet. So far as permissible by law, the Cancer Association of South Africa (CANSA) does not accept any liability to any person (or his/her dependants/estate/heirs) relating to the use of any information contained in this Fact Sheet.

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Cape Honeybush

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Cape Honeybush Tea

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Coarse Honeybush

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Honeybush

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Honeybush Health

https://www.google.co.za/search?q=health+benefits+south+african+honeybush+tea&source=lnms&tbm=isch&sa=X&ei=js2BU-y0Kub07Aa7toGgDQ&ved=0CAYQ_AUoATge&biw=1517&bih=714&dpr=0.9#facrc=_&imgdii=_&imgrc=ca3kwHPmknZ1_M%253A%3BFShvgEM3n4KnHM%3Bhttp%253A%252F%252Fwww.honeybushhealth.com%252Fwp-content%252Fuploads%252F2013%252F01%252Fbenefits-long.sm_.jpg%3Bhttp%253A%252F%252Fwww.honeybushhealth.com%252Fhoneybush-health%252F%3B800%3B300

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