#### CROP PROFILE

# **Baobab** and the Reawakened 25

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**EVERYBODY KNOWS THIS MAJESTIC TREE** as the protagonist in the severe savannah landscapes. Its value as a food source, however, is unknown to most. Baobab is vital to the rural communities of Kenya. All parts of the plant are used in a variety of ways. The fruits, eaten fresh or stirred into drinks, provide an exceptional amount of vitamin C and other nutrients. The seeds are roasted and made into a creamy nut butter. The leaves are a staple and are eaten as a relish, stewed in soups, dried and powdered or to extract oil. Baobab has immense potential to improve nutrition and food security as well as to support sustainable land use.





# BAOBAB

Nine species of the Adansonia genus, including Adansonia digitata

Origin: West Africa

Grown in: Madagascar, savannah of South and West Africa and Asia, Australia Resilient "Tree of Life" providing antioxidant rich fruit and edible leaves

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#### BOTANY

Baobab is called the upside down tree because of the tall trunk's wide girth and its compact, high crown of intricate branches that resemble roots- baobab appears as if it were a normal tree pulled from the ground, flipped and plopped back in. The tree can grow up to 25m tall with a trunk up to 25m wide when fully mature. The thick trunk provides water storage to aid tree survival in dry periods; occasionally, elephants will tear down a baobab tree to access the moisture inside. The bark is fairly smooth and red-brown to purple-grey in color. Adansonia digitata, as is implied in its name, has digitate leaves with 5 glossy dark green leaflets. Baobab's large flowers hang down off long stems like a pendulum. They are composed of large crinkled white petals that fold up to reveal a puff ball mass of stamen. These flowers often emerge before the baobab's leaves, and they open in the evening (for only one night) to be pollinated by fruit bats and nocturnal insects. The pollinated flower develops into an amphisarca fruit- a manyseeded, pulpy fruit with a hard rind that does not crack open to release the seeds. The rind is covered in downy hairs and the seeds inside appear as white, chalky irregular stones puzzled together.

#### **CULINARY USE**

The leaves of the baobab tree are eaten fresh, prepared similarly to spinach, or dried. The chalky pulp of a baobab fruit has a tart and acidic flavor when eaten fresh. The fresh pulp is dissolved into liquids to drink or use as a sauce. The pup is used as a fermenting agent in brewing or baking. The pulp is often dried and made into a powder to add taste and nutrition to drinks, porridge and other preparations. The seeds are fermented to use as a condiment, roasted as snacks, or used as a thickener.

#### **NUTRITION AND MEDICINAL USE**

Baobab fruit is a great source of Vitamin C, in fresh and dried form. Dried baobab powder is a good source of fiber, potassium and calcium with a high antioxidant ORAC value. There is little formal research of the medicinal properties of baobab, but traditionally almost all parts of the tree are used to treat diseases such as fever, diarrhea, malaria, microbial infections and dysentry. Baobab consumption is claimed to help improve digestive health and support the immune system.

#### AGRICULTURE

Baobab is native to the African savanna; it thrives in arid areas with low rainfall and well-drained soil. The trees adapt to dry conditions by shedding their leaves during the dry season and storing water in their trunks- up to 120,000 litres / 32,000 gallons. The trees are incredibly resilient, resisting damage from fire and termites and regrowing any stripped bark. Baobab trees can live up to 3,000 years old, possibly longer. Baobab fruit and leaves are largely harvested from wild, uncultivated trees. The leaves of baobab provide an important forage material for livestock.

#### **HISTORY AND RESEARCH**

Baobabs are the oldest angiosperms on the African continent. Organizations such as the Baobab Foundation are conducting research to further understanding of the pollination of baobabs, baobab population ecology, tree growth and fruit production. Many companies and producers are researching enhanced processing and value addition methods in order to grow the market for baobab. Although Baobab is a native tree given great respect by many, some Adansonia species are in danger of extinction because of habitat destruction caused by the spread of agriculture. Baobabs, especially the oldest, are also in danger from climate change. Some of the largest Adansonia digitata.

#### **CUISINE**

- Miyan Kuka (Baobab Leaves Soup) African Food Network
- Traditional Baobab Drink ADUNA
- Baobab Recipes and Recipe Book KAIBAE
- <u>Baobab Recipes BAOBAB FOODS</u>

### SOURCING

- Atacora: Baobab Products
- Aduna's superfoods: Baobab Aduna
- Innovative Baobab Ingredients- Baobab Foods
- Organic Baobab Powder KAIBAE

# **COMMUNITY RESOURCES**

- Baobab Foundation
- Lost Crops of Africa: Baobab NAP
- Baobab Stories
- Lost Crops, short documentary film about baobab KAIBE

# RESOURCES

- Baobab Food Products: A Review on Their Composition and Nutritional Value Chadare et. al
- Natural Histories, Baobab BBC Radio 4
- Baobab Illustration The Eden Project
- Africa's majestic baobab trees are mysteriously dying NATURE
- An updated review of Adansonia digitata: A commercially important African tree Kamatou et. al
- KAIBAE Impact Report

