

Tsamma Melon

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A cousin of the watermelon so popular in summertime, the smaller, less sweet Tsamma melon grows wild in Botswana's Kalahari [2]. In fact, these melons are widely believed to be the ancestors of today's commercial varieties. Botanically, they are the same species. Tsamma melons survive in dunes and bud from a creeping plant with bright yellow flowers and hairy stems.



This melon holds substantial quantities of water, much like the cacti native to deserts across North America. Gemsboks dig up and eat their long, fat roots for moisture [5]. Traditionally, the San indigenous peoples of the Kalahari stockpiled these plants as sources of water. Some even explained that it was once impossible to cross the Kalahari except during the midwinter melon season. It is said that the San could survive for six weeks on nothing but melons [1].

Tsamma melons also serve as an essential source of food. They stay fresh for several weeks, though their juice ferments if left out for more than a day. Cooking them over coals softens the harder flesh of more bitter varieties, while the sweeter ones can be eaten raw. The high pectin content in the rind of another sort makes them ideal for prickling and preserves thanks to the gelling capabilities of this plant compound [2].

While they are 90% water and so contain few vitamins, the egusi variety of the Tsamma melon is valued for its seeds. High in both oil and protein, these can be roasted, eaten or crushed into a paste similar to peanut butter. When dried and ground, the seeds can be mixed to make porridge. Their oil is additionally used in moisturizers, to increase hair growth, and as a base for soap. Cosmetic companies currently exploit these properties in their products and the San still consume the seeds for their nutrition [4].

Brown hyenas also enjoy eating the melon and spread the seeds in their dung, allowing the plant to reproduce. Stomach acid only breaks down the tough covering of the seeds before they are excreted. The feces then protect them from being eaten by rodents. This forms a mutually beneficial relationship [3].

Today, few varieties of the Tsamma melon are cultivated except for cosmetics. Their bitter taste lacks commercial value and so they remain subsistence crops. Nevertheless, their genetic material could be invaluable. Endemic to the desert, they are extremely hardy and drought-resistant. Domesticated varieties of watermelon aren't. Plus, they come in diverse forms and colors. They could therefore be used to produce melons better suited to drier growing conditions or to market unique varieties appealing to customer preferences.

The Tsamma melon is a wild treasure of the Kalahari. It has served for generations as an indispensable source of food and water for the indigenous inhabitants of this region. While it may not be as sweet or large as the watermelon sold in our grocery stores, its genetics hold potential for plant breeding. It is important to preserve and examine other strains of species for unique traits and regional growing advantages. This multi-faceted melon once helped

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sustain an aspect of a population, it continues to play an integral role in the Kalahari's delicate desert ecosystem, is increasingly used in cosmetics, and perhaps presents a new biological role as well.

Sources:

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