

Kokum- The Exotic Fruit with Taste and Health

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Introduction

Kokum, scientifically known as *Garcinia indica*, is an underutilized tropical fruit native to the Western Ghats region of India. Also called as Pride of the Konkan belt, it is a small, round fruit that is typically dark purple or black when ripe. Kokum is highly valued for its culinary, medicinal, and cultural significance. In Indian cuisine, particularly in the coastal regions of Maharashtra, Goa, and Karnataka, kokum is widely used as a souring agent in various dishes. Its tangy flavor adds a unique twist to curries, chutneys, pickles, and beverages.



Fig:1. Kokum

Kokum is also used to make refreshing summer drinks like kokum sherbet, which helps combat dehydration and provides relief from the heat. It is believed to possess anti-inflammatory, antioxidant, and digestive properties. Traditionally, kokum has been used to alleviate digestive disorders, improve appetite, and treat skin conditions. It is also considered cooling and is used to relieve heat-related ailments. Kokum trees are evergreen and can grow up to 15 meters in height. They bear fruit during the summer months, typically between March and May. The fruit is harvested when it turns from green to deep purple or black. After harvest, the fruit is dried and used in various forms such as whole dried kokum, kokum extract, or kokum powder. Apart from its culinary and medicinal uses, kokum is also valued

for its environmental sustainability. It grows naturally in the Western Ghats, an ecologically diverse region known for its rich biodiversity. The cultivation of kokum helps in preserving the natural habitat and promoting sustainable agricultural practices.

Table 1: Chemical Composition of Kokum.

Nutrients	Quantity (%)
Moisture	80
Starch	1
Protein	1.92
Pigments	2.40
Crude fat	10
Tannin	2.85
Crude fibre	14.28
Pectin	5.71
Total ash	2.57
Ascorbic Acid	0.06
Hydroxyl Citric acid	22.80

Nutritional benefit

Kokum fruit offers several nutritional benefits. Here are some key nutritional components and their potential health benefits:

1. **Vitamin C:** Kokum fruit is a rich source of vitamin C, also known as ascorbic acid. Vitamin C is an essential nutrient with antioxidant properties. It helps protect cells from damage, supports the immune system, aids in collagen synthesis for healthy skin and tissues, and enhances the absorption of iron from plant-based sources.
2. **Garcinol:** Kokum fruit contains a compound called garcinol, which has been studied for its potential health benefits. Garcinol is known for its antioxidant, anti-inflammatory, and anticancer properties. It may help reduce inflammation, protect against oxidative stress, and exhibit anticancer effects in preclinical studies.
3. **Hydroxycitric Acid (HCA):** Kokum fruit contains hydroxycitric acid, a compound believed to have several effects on the body. HCA has been associated with weight management, as it may help suppress appetite, inhibit the conversion of carbohydrates

into fat, and increase fat metabolism. However, more research is needed to fully understand its effects and mechanisms of action.

4. **Dietary Fiber:** Kokum fruit is a good source of dietary fiber, which is important for maintaining digestive health. Fiber aids in proper digestion, prevents constipation, and promotes a feeling of fullness, which can be beneficial for weight management. It also helps regulate blood sugar levels and promotes heart health.
5. **Antioxidants:** Kokum fruit contains various antioxidants, including garcinol and vitamin C. Antioxidants help neutralize harmful free radicals in the body, which can reduce oxidative stress and the risk of chronic diseases, such as heart disease, cancer, and neurodegenerative disorders.

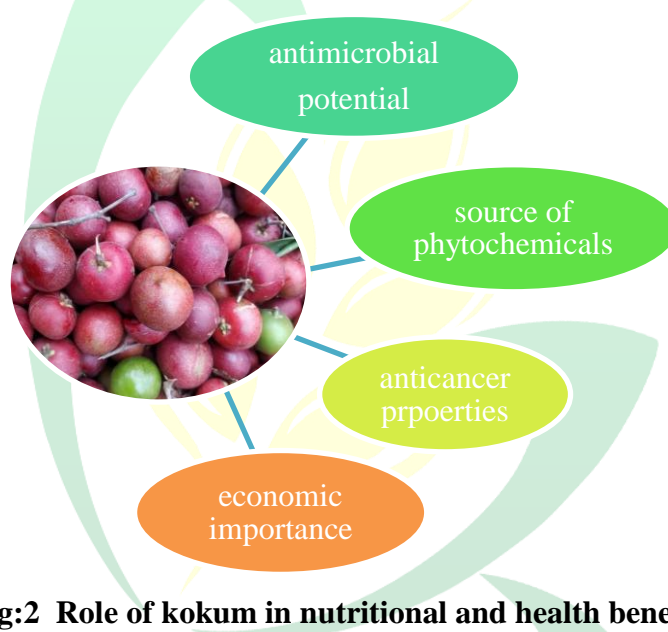


Fig:2 Role of kokum in nutritional and health benefit

Medicinal value

Kokum (*Garcinia indica*) has been traditionally used in Ayurvedic medicine for its medicinal properties. While scientific research on kokum's medicinal benefits is limited, here are some potential health benefits associated with the fruit:

1. **Anti-inflammatory Properties:** Kokum fruit contains compounds like garcinol, which has shown anti-inflammatory effects in studies. It may help reduce inflammation and alleviate related conditions such as arthritis, joint pain, and inflammatory bowel disease.
2. **Antioxidant Activity:** Kokum is rich in antioxidants like garcinol and vitamin C, which can help combat oxidative stress caused by free radicals in the body. Antioxidants protect

cells from damage, support the immune system, and may reduce the risk of chronic diseases such as cardiovascular disease and certain cancers.

3. **Digestive Aid:** In Ayurvedic medicine, kokum is used to support digestion. It is believed to stimulate the secretion of digestive enzymes, improve appetite, and alleviate digestive discomfort like acidity, bloating, and constipation. Kokum is often used in the form of "kokum sherbet" to soothe digestive issues.
4. **Weight Management:** Kokum fruit contains hydroxycitric acid (HCA), which is believed to have potential effects on weight management. HCA may help suppress appetite, inhibit the conversion of carbohydrates into fat, and increase fat metabolism. However, more research is needed to fully understand its effectiveness and safety.
5. **Cardiovascular Health:** Some studies suggest that kokum may have cardioprotective effects. It may help lower cholesterol levels, reduce triglycerides, and improve lipid profiles, which are important factors in maintaining cardiovascular health.
6. **Skin Health:** Kokum butter, derived from kokum seeds, is used in skincare products for its emollient and moisturizing properties. It helps nourish the skin, improve elasticity, and promote skin cell regeneration. Kokum butter is often used in creams, lotions, and lip balms.

Value addition of kokum

1. **Kokum Extract:** Kokum fruit can be processed to extract its beneficial compounds, such as garcinol and hydroxycitric acid (HCA). These extracts can be used as ingredients in dietary supplements, functional foods, and nutraceutical products. Kokum extract can also be incorporated into skincare formulations for its antioxidant and anti-inflammatory properties.
2. **Kokum Syrup or Concentrate:** Kokum fruit can be transformed into a syrup or concentrate by extracting its juice and reducing it to a thick consistency. Kokum syrup can be used as a natural flavoring and souring agent in beverages, mocktails, and cocktails. It can also be used as a topping for desserts, ice creams, or as an ingredient in sauces and dressings.
3. **Kokum Powder:** The dried kokum fruit can be ground into a fine powder. Kokum powder can be used as a natural food coloring and flavoring agent in a wide range of

culinary preparations. It adds a tangy and sour taste to dishes and can be sprinkled over salads, snacks, or incorporated into spice blends.

4. **Kokum Butter:** Kokum seeds contain a rich, creamy butter that is solid at room temperature. Kokum butter has excellent emollient properties and is often used in skincare products, such as creams, lotions, soaps, and lip balms. It helps moisturize and nourish the skin, promoting softness and elasticity.
5. **Kokum Jam or Preserve:** Kokum fruit can be cooked with sugar or honey to make a delicious jam or preserve. The tangy-sweet flavor of kokum jam can be enjoyed on toast, bread, or used as a filling in pastries and desserts.
6. **Kokum Infused Products:** Kokum can be infused into various products to add its unique flavor and health benefits. For example, kokum-infused oils can be used for culinary purposes or in aromatherapy. Kokum-infused vinegar can be used as a tangy dressing or marinade.
7. **Kokum Cosmetics and Personal Care Products:** Kokum butter and kokum oil can be used as key ingredients in the production of natural and organic cosmetics, including lip balms, body butters, soaps, and hair care products. They provide moisturizing, nourishing, and protective properties for the skin and hair.

Certainly here are a few interesting and lesser-known facts about kokum:

- **Cooling Effect:** Kokum is known for its cooling properties and is often used to prepare refreshing beverages and sherbets in hot climates. The fruit's tangy flavor provides a cooling sensation and helps to combat heat-related ailments.
- **Traditional Sun block:** Kokum butter, extracted from the seeds of kokum fruit, has natural emollient and sun protection properties. In some regions, people traditionally apply kokum butter to their skin as a natural sun block to protect against harmful UV rays.
- **Aid for Dehydration:** Kokum sherbet, a popular beverage made from kokum fruit, is often consumed in India during the summer months to combat dehydration and heatstroke. It is believed to replenish electrolytes and provide relief from heat-related ailments.

- **Culinary Substitute:** In the absence of tamarind, kokum is often used as a substitute in recipes that require a tangy or sour flavor. Its unique taste adds a delightful sourness to dishes, curries, chutneys, and pickles.
- **Natural Food Preservative:** Kokum is known for its preservative properties due to the presence of organic acids. It has been traditionally used to preserve pickles, curries, and other food items, extending their shelf life.
- **Sustainable Agriculture:** Kokum cultivation is considered environmentally friendly and sustainable. Kokum trees are native to the Western Ghats, an ecologically rich region, and their cultivation helps preserve biodiversity and prevent soil erosion

Overall, kokum is a versatile fruit that offers a delightful blend of tanginess, nutritional value, and cultural significance. Its distinctive qualities make it a cherished ingredient in Indian cuisine and a source of traditional wisdom in holistic health practices.