



HEALTH BENEFITS OF KOKUM

Dr. M. Venkatraman and Dr. J. Sherly

Introduction:

Kokum (*Garcinia indica* Choisy) is one of the important indigenous tree spice crops originated and grown in Western Ghats of India, South Konkan region of Maharashtra, Coorg, Wynad and Goa and is found in evergreen and semi evergreen forests and as a home garden tree. The tree grows extensively in the Konkan region of Maharashtra, Goa, coastal areas of Karnataka and Kerala, evergreen forests of Assam, Khasi, Jantia hills, West Bengal and Gujarat. It is known by various names across India including Bindin, Biran, Bhirand, Bhinda, Kokum, Katambi, Panarpuli, Ratamba or Amsol. It is indigenous to the Western Ghats region of India, along the western coast. It is found in forest lands, riversides, and wasteland, and also gets cultivated on a small scale. In India the tree mainly found along costal belt of Konkan region of Ratnagiri district of Maharashtra, Goa, Uttara Kannada, Udupi and Dakshina Kannada Districts of Karnataka and Kasaragod area of Kerala. Western Ghats, a rich source of biodiversity for a number of plant species, harbours a wide diversity of kokum trees.

There are wide variations in naturally distributed kokum populations in fruit quality due to the dioecious nature and cross pollination. Fig 1a shows the kokum fruit and Fig 1b shows the kokum rind. The ripe kokum fruit is coloured either dark purple or red tinged with yellow. It contains 3-8 large seed embedded in a red acid pulp, in a regular pattern like orange segments, in a white pulpy material. Shape of fruit varies from round to oval and its weighs around 21-85g. The expected shelf life of this fruit is about 1 week. Sun drying is a commonly used method to preserve the fruit and it takes around 6-8 days for complete drying. The fruit is mainly used for culinary purposes. Kokum is collected from the wild, grown in home gardens and cultivated at a limited scale as a rainfed crop, usually mixed with other fruit trees and in the Western Ghats region, estimated to be grown in an area of 1200 ha with an annual production of 10,400 tonnes which constitutes the dried rind of the fruit is used mainly as an acidulent in cosmetic products and moisturising and rind has got medicinal

Dr. M. Venkatraman, Assistant Professor in Horticulture, School of Agriculture Sciences, Dhanalakshmi Srinivasan University, Trichy

Dr. J. Sherly, Assistant Professor in Horticulture, PAJANCOA & RI, Karaikal

properties and used in the treatment of piles, dysentery, tumours and heart complaints. Fruit kokum, rind and seed have many applications such as culinary, foods, fruit drinks, pharmaceuticals and industrial. It is also called as an Indian spice with a pleasant acceptable flavour and has a sweet acidic (sour) taste which makes it a popular food-additive. It is traditionally used as acidulant in many Indian dishes. This crop is gaining increasing importance, as its fruits have multifarious utilities ranging from the pharmaceutical uses to high quality beverages. Kokum has been reported for the treatment of dysentery, tumours, heart complaints, stomach acidity and liver disorders.

Industries- The value addition to the kokum fruits through processing assumes an important activity because raw/ripe fruits need to be processed before their consumption. In this context, kokum crop has attained the status of economic importance. The resultant of this activity creates employment opportunities at rural area and on the other hand develops suitable products for earning the foreign exchange through the export of kokum derivatives. The medicinal and antioxidant properties of kokum butter and flowers also priced to be very high and much useful in cosmetic application. As a result of this many pharmaceutical industries have shown keen interest in kokum and its

derivatives. With this situation, India is the only country enjoying the monopoly with respect to kokum production in the world. The different products developed by processing of kokum are given below:

- ❖ It Is Great for the **Heart**.
- ❖ It Could Help in Fighting Cancer.
- ❖ It Can Alleviate Anxiety and Depression.
- ❖ It Regulates Blood Sugar.
- ❖ It Can Help Protect the Liver.
- ❖ It Keeps Inflammation at Bay.
- ❖ It Helps Combat Ageing **Skin**.
- ❖ It Reduces Oxidative Stress in the Body.

Kokum Syrup:

Kokum fruits have certain medicinal properties. Juice extracted from this fruit is sweet and sour and thus liked by many. A glass of cold kokum syrup is refreshing and it also improves the digestive system. The product is popular in the state since long and now it is sold in nearby states as well. Since it is a natural fruit extract, it is preferred by many people. In traditional method kokum rind is separated by removing fruit pulp and seeds. Pulp and seeds are not used for squash production. Equal quantity of sugar mixed with kokum rind in a wide mouth vessel. This mixture of sugar and kokum kept open for sun rays up to eight to ten days. In this process juice comes out from kokum rind and already sugar is mixed with juice. If balance sugar accumulation is found at the bottom of the

vessel no additional sugar is to be added. Filtering juice and rind with help of a cotton cloth. This clean Kokum Syrup is to be filled in clean glass bottle. For long term preservation these filled bottles again kept sun light for another ten days without capping. You have to cap the bottles at end of process.

Kokum Agal (Kokum Juice Concentrate):

Kokum fruits are selected randomly and washed with clean water. The fruits are crushed and seed and pulp from the fruit is removed manually. Salt is added in the hollow space of the rind and the mixture of kokum rind and salt is kept in available plastic drum or container and is covered with cloth. Juice from the container is collected and filled in glass bottles of 750 ml to 1000 ml size. The colour and quality of agal varies from location to location as proportion of salt used ranges from 10 to 20 per cent and it depends on the quality of fruits used and also on the person making it. Colour of the agal obtained is dark brown to blackish in colour.

Kokum Sarbat:

The kokum sarbat is prepared by using the kokum syrup. The water is added into kokum syrup at 1:5 proportions and some salt and cumin powder is added to make the kokum sarbat. 6.4 Kokum Solkdhi Generally agal is ready to use for preparation of Solkdhi when mixed with coconut milk. In this process the grinded green chilli, cumin paste, salt and

jaggery depending upon how much sweetness we require are used for the preparation of kokum solkadhi.

Kokum Amsul (Dried Salted Rind):

The amsul is made from the peel of the fruits 'Kokum'. Amsul is a fine ingredient in veg-dishes and curries for the sour taste also it is useful for skin boils and irritation, if rubbed against the irritated parts. In traditional process, fresh kokum fruit washed properly and cut into two halves to separate the seed, pulp and the rind. The seed and the pulp are mixed with around 10 percent salt. The salt solution leached out from this mixture is used for the dipping of the separated rind. The rind then placed for sun drying during the daytime. The next day the dried sample is again dipped in the salt solution, which was leached on the second day from the salt seed mixture. Then the rind is again placed for the drying. The process of dipping and drying is repeated for 4 to 5 times to get the amsul.

Kokum Butter:

The fat is used mainly for edible purposes obtained by primitive methods is just off white, and free fatty acid levels are low indicating absence of any powerful lipolytic activity. The fat can be easily refined in the usual way, and bleached to a near white colour in the conventional manner. Prompted by enquiries from foreign buyers and realising its potential as a high value fat for export, oil

millers have in the past decade, organised the collection of kernels and the fat is now recovered in a small way (about 200 tonnes or so) for export. The residual oil in the extracted cake is also recovered by solvent extraction. Despite slight increase in FFA, this quality also finds a ready export market.

Kokum Beverages:

Kokum extract is having approximately 4% sugar which can be fermented to produce high quality red wine. The extract from kokum can be converted to many health beverages and squash like products with sugar addition.

A large, faint watermark of the magazine's logo is centered on the page. It features a sun with rays, a hand holding a plant, and a laurel wreath at the bottom.

NEW ERA
AGRICULTURE MAGAZINE