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NUTRITIONAL VALUE OF PALMYRAH FRUIT KERNELS AND ITS PROCESSED PRODUCTS

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Abstract

The palmyrah palm is grown in a good part of the Indian sub-continent, more importantly in the state of Gujarat, Maharashtra, Karnataka, Goa, Andhra Pradesh, Kerala, Tamil Nadu, Orissa and West Bengal. Since it is not a cultivated crop, available statistics of its population, production etc. estimates the number of palms grown in the country as anything from 12 to 17 crores. Of the palms grown in India, the palmyrah palm ranks second in economic importance next to coconut followed by the wild date palm. The palmyrah yields a variety of edible and non - edible products of economic value by virtue of which it is regarded, alongwith the coconut palm. As the KALI YUGU KALPA VRIKSHA. On account of its wide fan-shaped leaves. It acquired the botanical name, 'Borassusflabellifer'. Its species name 'flabellifer' meaning 'fan bearer' in Latin.

Keywords: Nutritional value, Palmyrah, Fruit kernel, Processed product.

Introduction

Of the palms grown in India, the palmyrah palm ranks second in economic importance next to coconut followed by the wild date palm. The palmyrah yields a variety of edible and non - edible products of economic value by virtue of which it is regarded, along with the coconut palm. as the KALI YUGU KALPA VRIKSHA. On account of its wide fan-shaped leaves. It acquired the botanical name, 'Borassusflabellifer'. its species name 'flabellifer' meaning 'fan bearer' in Latin.

The palmyrah palm is grown in a good part of the Indian sub-continent, more importantly in the state of Gujarat, Maharashtra, Karnataka, Goa, Andhra Pradesh, Kerala, Tamil Nadu, Orissa and West Bengal. Since it is not a cultivated crop,

available statistics of its population, production etc. estimates the number of palms grown in the country as anything from 12 to 17 crores.

The fruit of the palm yields very attractive snow white whole kernels, which led some people to describe them as' ice apple'. They have a subtle flavor and a delicious taste, and are a treat during peak summer months of April — June, offering a soothing and refreshing experience. The freshly collected sap from palmyrah palms, known as 'Neera', like wise is a natural potable beverage with a delectable taste flavour. Both these natural products have appeal to the rural masses and have even come to be liked much by the people in the urban areas and metro cities.

The nutritive value of palmyrah fruit kernels has been reported by the National

Institute of Nutrition Hyderabad is listed in **Table 1:**

The kernels are also credited with certain medicinal values like diuretic effect, maintenance of body temperature, and increase of spermatogenesis in males and milk production in females.

What, however, has missed the attention of all till now is that both palmyrahfruit kernels and Neera are one hundred per cent 'Organic foods' gifted by nature. Organic foods' are produced using wholly natural organic fertilizers like animal urine and manure, green manure, and plant-based pesticides and fungicides, totally avoiding chemical fertilizers and pesticides.

Other edible products yielded by the palmyrah palm are the tender 2-3 months old cotyledons / seedlings and the ripe fruit, both of which are very popular with rural masses. The tender seedlings are starchy, faintly sweet, and have a lingering agreeable taste. Which the seedlings are eaten as such after toasting, the ripe fruit pulp is consumed both in the fresh and dried form. The sweet pulp is also converted in to various snack items in ways and forms unique to each region and its culture.

Table.1 Nutritional value of palmyrah fruit kernels (per 100g)

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Components	Nutrient Value
Moisture	94.9 (g %)
Solids	5.1 g
Protein	0.9 g
Calcium	4.5 mg
Phosphorus	35.1 mg
Iron	0.07 mg
Copper	0.14 mg
Zinc	0.14 mg
Magnesium	81.3 mg

The Commercial potential of the above two major natural organic foods and the other minor products from the palmyrah palms is yet to be properly and fully explored and exploited. The status of value addition to tender palm fruit kernels, however, stands on a different pedestal. Canned sliced palm kernels have long since been produced by Thailand and the product has been marketed in the United State for well over two decades.

The commercial volume of production has however, been rather limited and the exports were likewise confined to small markets in Singapore and Malaysia because of inadequate promotional efforts.

inadequate promotional efforts. Separating the whole kernels from the fruit Sorting, size - and maturity - grading the kernels Washing and cleaning Peeling the whole kernels (manual, Steam/ boiling water peeling, (3 to 5 minutes) Slicing, dicing, tidbits Canning Filling in cans to the desired net weight Covering with not sugar syrup - 25⁰-30⁰. Brix- (containing 0.5% added acidulant like citric acid, reducing the PH of the canned product preferably to 4.2 - 4.3 %) Exhausting the cans in a water steam bath Hermetically sealing the cans Sterilized the sealed cans in boiling water /steam, (20 to 30 min to 500 - 850g product net weight) Cooling in running cold water

Fig. 1. Process Flow sheet for canned palm fruit kernels

Storing cans in a cool dry place

The process standardized is broadly indicated in Fig.1. A patented method is available for easy removal of the peels from the freshly extracted whole kernels which otherwise is a labour-intensive and time - consuming process. This method enables mechanization of all the manual operations involved in canning and freezing the products, thereby greatly facilitating the commercialization of canned fruit kernels.