Coconut Neera: nutritional drink needs promotion

The coconut, a benevolent tree and nature's gift to mankind, is a source of food, beverage, oilseed, fibre, timber and health products. Neera, a sweet sap tapped from the immature inflorescence of coconut too has a lot of health benefits and needs attention and promotion as nutritional drink.

Two leading coconut growing states of the country — Kerala and Karnataka — have allowed neera harvest, the sweet sap tapped from the coconut tree. The announcement to this effect were made by the governments while presenting the state budgets.

Presenting the Karnataka state budget, chief minister Siddaramiah said amendments will be made to the Excise Act (state subject) to permit members of coconut growers' federation to harvest neera in limited quantities. "It will help increase the income of coconut growers significantly," Siddaramiah said.

Similarly presenting the Kerala state budget the finance minister K M Mani said the government believes that neera production can be the best vehicle for comprehensive recovery of coconut sector, providing siginificant income to the coconut farmer. He further said that the state intends to collaborate and encourage the path breaking efforts of the Coconut Development Board (CDB), Kochi, in this area. Packaged neera will be served as one of the beverages of choice at all public functions and government accommodations to encourage promotion of neera products.

Farmers from the both states have been demanding the governments to allow tapping of neera as they have been struggling with pest attacks and drought in recent years. Though Karnataka had come up with a draft neera policy way back in 2007, the state had failed to implement the same over concerns of misuse. Welcoming announcements, coconut growers tapping neera said it would help them to earn additional income.

Neera and health benefits

Neera is a non-alcoholic and nutritious drink from the immature inflorescence of coconut tree. It is a vascular sap collected from immature unopened coconut inflorescence and is in fresh form. It is a sugar containing juice, a delicious health drink and a rich source of sugars, minerals and vitamins. It is sweet and oyster white in colour and translucent.

Neera contains high amount of

glutamic acid which is the amino acid used by the body to build proteins. It is high in inositol which is beneficial for the treatment of eye abnormalities, eczema etc. The most significant characteristic of the product is its low Glycemic Index (GI is 35), an indicator of the extent of sugar absorbed into the blood. It is an abundant source of minerals, 17 amino acids, Vitamin C, broad-spectrum B vitamins, and has a nearly neutral pH. The pH value of neera is the range of 3.9-4.7 and has specific gravity 1.058-1.077. Palm Jaggery, by product extracted from neera, possess high medicinal properties and is widely used for ayurvedic preparations. Palm sugar, with its low GI, is expected to cater to the needs of diabetic patients.

Sharing his views Dr. B Sesikeran, former Director, National Institute of Nutrition, said that neera was a safe drink but "I think it has a short shelf life since it has a potential to ferment." Recalling his earlier days he said "I do remember that when I was in college in 1970's neera was sold in Chennai in kiosks, I think through Gram Udyog. It was served chilled and very refreshing. It is supposed to be rich in anti-oxidants and a whole lot of potassium and other electrolytes. Those days carbonated beverages did exist till 1977 but were not affordable for most of us. This was the affordable option."

Needs attention

Neera is highly susceptible to natural fermentation at ambient temperature within a few hours of extraction from the palm source. The tapped neera would be filtered for removing foreign particles, further chilled and stored at refrigerated conditions. Several technologies have been developed by research institutes to process and preserve neera in its natural form to retain the vitamins, sugar, and other nutrients beneficial for health.

National Chemical Laboratory in Pune has come up with special filtration technique to enhance the shelf life of neera. Central Food Technological Research Institute in Mysore has developed technologies for the preservation and processing of neera. Other research institutes like, CDB Institute of Technology under Coconut Development Board, SCMS Institute of Science and Technology, Defence Food Research Laboratory, Kerala Agricultural University and Central Plantation Crops Research Institute too have developed technologies for processing and preservation of coconut neera. These processes ensure hygienic collection of sap using anti-ferment agents approved by Food Safety and Standards Authority of India (FSSAI). The fresh coconut sap collected in such a manner could be transported in ambient conditions to the factory site.

The coconut sap is processed into a non-alcoholic nutritious drink through centrifugal filtration and pasteurisation at the desired temperature and packed into consumer packs. Centrifuging process is followed to separate water, pollens and other residues from neera. Pasteurisation (the process of heating at higher temperatures and immediate cooling) removes bacterial presence and ensures longer shelf life. Bio preservatives would be added. The packed neera can assure a shelf life of 3-4 months in room temperature and over a year in refrigerated conditions.

Besides using as a nutritional drink, neera can be used to develop other value added products which can be positioned in the market for targeted section like health conscious people, diabetic patients, kids and youngsters as a natural nutritive product to replace soft drinks, sugar and honey after value addition.

Neera and its value-added products have a higher competitive advantage over existing soft drinks/ beverages. Not all carbohydrate foods are ranked equal, in fact they behave quite differently in our bodies due to individual metabolism. The glycemic index or GI describes this difference by ranking carbohydrates according to their effect on our blood glucose level. Low glycemic index foods produce only small fluctuations in our blood glucose and insulin level. So neera and its value added products can be safely used by diabetic patients.

Palmgur (jaggery), palm sugar and neera syrup is produced by heating fresh neera and concentrating it. The use of concentrate syrup gives same sweet blend without causing spikes in the blood sugar while benefiting from it being nutritionally superior as compared with other natural syrups. Neera syrup is used as a health drink in connection with ayurveda and other systems of medicine. Coconut sap sugar can be the most suited alternative sweetener for use by diabetic patients. Considering its competitive advantages there is a growing market trend for coconut neera and its value added products in beverages, food, bakery and confectionary industries.

People from the coastal belt of the country have been using neera and its byproducts. In West Bengal and Orissa most of the neera is converted into palmgur (jaggery). In Gujarat and Maharastra too coconut farmers produce palmgur from neera. In Tamil Nadu the coconut growers have been producing palmgur, palm sugar and palm candy besides selling neera as Padhaneer.

Currently neera has an excellent market potential in local as well as other countries like Sri Lanka, Myanmar, Thailand, Africa, Indonesia, Philippines and other pacific region, where neera is consumed as cool drink. Neera, if promoted and introduced across India, is bound to create a huge market potential as a health drink and as a base for manufacturing value added coconut products like concentrated syrup, sugar, honey etc. which has wide export potential in developed markets like USA and European region. ■

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