

# Coconut Sugar- a premium product from neera

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Coconut sugar is a healthy and natural sweetener obtained from the flower buds of fresh coconut. It is a high value commercial product with promising health benefits, a whole food which contains 16 Amino acids, 12 vitamins and rich in minerals. Coconut sugar does not induce hyperglycemia or high blood sugar because it has a low Glycemic Index (GI) of 35. The Glycemic index basically measures how fast carbohydrates convert to glucose in the blood or how rapidly a particular carbohydrate turns into sugar. Low GI food is good for proper control and management of diabetes mellitus and may lower the total, HDL and LDL cholesterol. It may also be good for weight maintenance thus prevent overweight and obesity. Coconut sugar is a natural product, free from pesticides, contains no chemicals, no additives, no preservatives, no artificial flavors or colorings, no fermenting agents and no synthetic adulterants. It is unrefined and not highly processed like other sugars. Philippines, Indonesia and Thailand are the major manufactures of coconut sugar in the world.

CDB Institute of technology has developed a technology for processing coconut sugar from Neera. Trained

Neera technicians collect Neera from the inflorescence in a hygienic way using anti ferment solution, which is transported immediately to the processing unit in insulated ice box. Quality of Neera is ensured through visual analysis (color, taste, and smell), pH and Brix readings. As a preliminary screening, Neera is passed through a strainer for removing foreign matters. Neera is boiled until it gets transformed into a syrup with appropriate Brix. Crystallizing agent is added to the hot syrup which initiates the sugar crystallization process at a faster rate. Neera syrup is stirred well in a low temperature for about 10 minutes and is immediately transferred into a wide mouth steel container for cooling. Closed container is kept for a period of time for sugar crystallization.

Crystallization starts from this point, as tiny soft shining crystals appear on the top of the syrup. Crystals grow eventually and become large in size and more rigid. When the crystallization is over, syrup is decanted and the crystals are filtered and washed with water and kept for drying in sunlight. Once it is dried, crystals are shifted to the hot air oven maintained at a pre defined temperature. Drying process completes within 2-3 days. Properly dried crystals are broken down into small pieces and uniform size is

### Nutritional Value of Coconut Sugar

Parameter	Value
Moisture	2.81%
Total Sugar	96.03%
Protein	0.63%
Total Minerals	2.66%
Total Fat	traces



Coconut sugar developed by CIT



achieved by passing it through a mesh. Fine crystal with light brown colour is packed in required size in pet bottles/pouches. Trials are being conducted at CIT to optimize brix, proportion of the crystallizing agent and duration of storage to get maximum yield. The minimum average yield obtained by this process is 10%. Domestic price of the coconut sugar is approximately Rs 1000/kg. International market rate for the same varies from \$40 to \$50.

Since the coconut sugar can replace cane sugar in a healthy way, its value addition can increase the



Sugar Crystals in oven for drying

demand of coconut sugar in market, as the diabetic patients can enjoy chocolates, cakes and any other bakery sweets with this 'wonder sugar'.