

Coconut Jaggery Chips

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Coconut jaggery chips is a new product wherein sugarcane jaggery is used in place of sugar. Fresh kernel of matured coconut containing reasonable amount of water is to be used for this process. Important steps involved in the production of the coconut jaggery chips are dehusking, removal of shell, removal of testa, slicing of kernel, blanching of slices, osmotic dehydration of slices, drying of osmotically dehydrated slices in hot air dryer and then packaging.

In the food processing sector, osmotic dehydration, a method in which partial dehydration of fruit either fully or in sliced form brought about by dipping them in sugar solution and then hot air drying has gained importance. This has resulted in products with better flavour than freeze dried fruits at comparatively less cost. Sweet coconut chips using sugar solution by osmotic dehydration was already developed by CPCRI and many entrepreneurs and self help groups were given training in the preparation of coconut chips. Utilizing the same principle, a process has been developed for producing the sweet coconut chips using jaggery syrup.

Process for the production of the coconut jaggery chips

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fresh kernel weight to sweet coconut chips is about 50 per cent. On an average about 120 to 150 grams chips can be obtained from an average sized West Coast Tall coconut.

Preparation of jaggery syrup

Jaggery is dissolved in water in the ratio of 5:2 and boiled to make the solution thick. The filtered jaggery solution is cooled and used as the osmotic syrup. Powdered dry ginger, jeera powder and cardamom powder are added to get good taste and flavour. Other essence like vanilla-strawberry can also be added to get different flavour. The chips are removed from the syrup and dried. CPCRI electrical copra dryer or CPCRI chips dryer or any electrical oven can be used to dry the chips. Temperature inside the dryer should be kept between 55°C to 60°C. With this temperature setting the chips would be dried within 5 to 6 hours. Drying at lower temperature will prevent the loss of flavour and nutrients.

Packaging of chips

The sweet coconut chips is hygroscopic in nature. If the relative humidity is more than 75 percent, it will absorb moisture and lose its crispness. Hence the chips must be packed in aluminium foil laminated with LDPE pouches, which will maintain its flavour and crispness upto six months period without affecting its microbial and biochemical qualities. To avoid the



breakage of chips during transportation, it may be packed as pillow packet using gases like nitrogen or carbon dioxide.

Use of sweet coconut chips

The sweet coconut chips is crispy in nature and ready-to-eat form. No frying is required before consumption. It is having its own good coconut flavour as no oil is

used for frying. It can be used as snacks. For the cottage industry level production, an investment of about Rs. 25,000/- is necessary. About 40 coconuts can be converted into chips by two women labours. The cost of production of the chips will be about Rs. 3.80 for 50 gram packet (including the cost of coconut). The cost will be less for large scale

production. Training on production of coconut chips is given at CPCRI, Kasaragod for farmers and entrepreneurs and many people have availed this facility. Materials required to produce 2 kg coconut jaggery chips (40 packets of 50 g each) Jaggery - 3 kg, water - 1 ltr coconut - 15 nos., essence and other flavours.

Coconut products, selected oils and oilseeds (US\$/MT) **INTERNATIONAL PRICE**

Products/Country	2008 Jan.	2007 Dec.	2007 Jan.	2007 (Avg)
Fresh Coconut				
Philippines (Dom. Husked)	159	163	132	135
Copra				
Philippines/Indonesia (CIF Europe)	830	755	461	607
Philippines (Dom. Manila)	769	718	512	581
Indonesia (Dom. Java)	773	597	372	514
India (Dom. Kochi)	895	876	798	786
Coconut Oil				
Philippines (CIF Rott.)	1,252	1,144	727	919
Philippines (Domestic)	1,358	1,270	887	998
Indonesia (Domestic)	1,152	969	637	819
Sri Lanka (Domestic)	2,281	1,969	1,147	1,412
India (Domestic), Kochi	1,336	1,301	1,195	1,181
Desiccated Coconut				
Philippines FOB (US), Sellers	1,257	1,227	981	1,182
Philippines (Domestic)	936	981	760	922
Sri Lanka (Domestic)	1,582	1,341	1,032	1,126
India (Domestic, Delhi)	n.q.	n.q.	1,064	1,073
Copra Meal Exp. Pel.				
Philippines/Indonesia (CIF Rott.)	n.q.	n.q.	n.q.	n.q.
Philippines (Domestic)	138	144	196	165
Coconut Shell Charcoal				
Philippines (Domestic), Luzon, Buyer	n.q.	175	107	134
Sri Lanka (Domestic)	166	165	170	161
Indonesia (Domestic Manado)	149	144	149	130
Coir Fibré (Mattress)				
Sri Lanka (Mattress)	112	102	140	132
Sri Lanka (Bristle 1 tie)	249	265	n.q.	249
Sri Lanka (Bristle 2 tie)	355	357	n.q.	341
India (Geo Textile)	n.q.	n.q.	n.q.	1,075
Other Oils				
Palm Kernel Oil Malaysia/Indonesia (CIF Rott.)	1,229	1,124	649	889
Palm Oil, Malaysia/Indonesia (CIF Rott.)	1,055	942	588	780
Soybean Oil, (Europe FOB Ex mill)	1,251	1,191	696	881
Palm Kernel Oil, RBD (CIF NY)	1,430	1,264	776	1,002

Rate of Exchange :

January 28, 2008 IUS\$ = 41.20 P or Rp. 9,389 or India Rs 39.37 or SL Rs 108.50

1 Euro = US \$ 1.450

N.Q. Not Quoted

Courtesy : The Cocommunity