

Value Added Products from coconut

Being a zero wastage product, the product basket from coconut is enormous. Some of the value added products from coconut are Desiccated Coconut (DC), Virgin Coconut oil, Coconut chips, Coconut milk, Coconut milk powder, Coconut Vinegar, Coconut oil, Tender Coconut water, Ball copra, Neera and Neera products, Coconut ice cream, Coconut body lotion and so on. As part of the product promotion, commercial production units have been started in various parts of the country under Technology Mission on Coconut (TMOc).

CDB is providing financial assistance @25% of the project cost limited to Rs.50 lakh for entrepreneurs and 33.3% of the project cost limited to Rs. 50 lakh per project for SC/ST Women entrepreneurs for establishment of coconut processing units.

Virgin Coconut Oil

Coconut oil obtained from coconut milk is called virgin coconut oil (VCO). Traditional and modern methods are available for the manufacture of virgin coconut oil. In the traditional method, milk extracted from grated coconut kernel is boiled to get oil. Of late, the traditional method has been partially mechanized using a bridge press and mechanical grater. The modern method of extracting oil from fresh coconut kernel is known as wet processing.



The Virgin coconut oil is considered superior for use as edible oil, hair oil and baby oil because of its pleasing aroma and purity. It is applied on the body of babies to protect from skin diseases. Because of its low FFA content, this oil has a longer shelf life.



Composition of VCO as per APCC

Sl. No	Parameters	
1	Moisture (%)	Max 0.1
2	Matters Volatile at 120° C (%)	Max 0.2
3	Free Fatty Acid (%)	Max 0.2
4	Peroxide Value meq/kg	Max 3
5	Relative density	0.915 – 0.920
6	Refractive index at 40° C	1.4480 – 1.4492
7	Insoluble impurities per cent by mass	Max 0.05
8	Saponification Value	250 – 260 min
9	Iodine Value	4.1 -11
10	Unsaponifiable matter % by mass	max 0.2 - 0.5
11	Specific gravity at 30° C	0.915 – 0.920
12	Polenske Value	min 13
13	Total Plate Count	< 0.5
14	Color	Water clean
15	Odour and Taste	Natural fresh coconut scent, free of sediment, free from rancid odor and taste

Desiccated Coconut



Dehydrated coconut meat in the grated and shredded form is desiccated coconut (DC). A large number of units in India are manufacturing DC which is mainly absorbed by the confectionery and other food industries. DC is used as a substitute to grated coconut in various household preparations. DC is available in different grades based on the fineness of the material.

Composition of Desiccated Coconut

Sl. No	Item	Quantity
1	Moisture	1.3-2.5%
2	Protein	6.0-6.6%
3	Oil	68-72%
4	Carbohydrate	18-20%
5	Crude fibre	4-6%

Source* - Tropical Foods, Chemistry and Nutrition, Volume 2, George E Inglett



Coconut Milk

Coconut Milk is the oil-protein-water emulsion obtained by squeezing fresh grated coconut kernel. The undiluted and diluted forms are called coconut milk and the concentrated form is coconut cream. Coconut milk is obtained by extraction of fresh coconut wet gratings with or without water. This is an instant product, which can either be used directly/diluted with water to make various preparations such as fish & meat dishes, curries, sweets, deserts, puddings, cocktails, cakes, cookies, coconut jam, ice creams etc. It can also be used in the manufacture of bakery products and for coconut milk flavouring food stuffs. Preserved forms of coconut milk such as canned cream or milk and dehydrated whole milk are now available in many coconut growing countries. Commercial production of these products has been promoted in the Philippines, Thailand, Indonesia, Western Samoa, Sri Lanka and Malaysia and to some extent in India. Indonesia is the leading exporter of coconut milk followed by Sri Lanka, Thailand and Philippines.



Coconut Skimmed Milk

Coconut fresh kernel is a rich source of plant protein and is an invaluable material for the preparation of milk substitutes. Coconut skimmed milk is a solution of the soluble components of coconut after the cream is separated in a cream separator. Skimmed milk is a good source of quality protein suitable for the preparation of many useful food products or as supplemental protein source, especially in regions deficient in animal proteins. Freshly prepared coconut milk from pared kernel is filtered through a 120 mesh vibrating screen and the pH of the filtered milk is raised from 6.3 to 7.0 with the additions of sodium hydroxide. The milk is then pasteurized at about 60°C for one hour and subsequently centrifuged in a cream separator to yield the aqueous phase or the protein rich skimmed milk.



Spray Dried

Coconut Milk Powder

Spray drying is the best method for the preservation of coconut milk. Spray dried coconut milk powder is reconstituted into coconut milk by adding water which can be used to make various food preparations. The product offers additional advantages such as less storage space, bulk packaging at reduced cost and longer shelf life. Technology for the manufacture of spray dried coconut milk powder is available with Coconut Development Board.



Coconut Cream

Processed and packed coconut cream is a ready-to-use product which can either be used directly or diluted with water in various edible preparations. Coconut cream when partially defatted is called coconut milk. Coconut cream/ milk is used as an ingredient in household recipes and as a component of processed foods. Coconut milk is also used as coconut cream, a mixer in alcoholic drinks. Coconut milk/cream is available in pouches, bottles and tetra packs. Technology for the manufacture of coconut cream is available with Coconut Development Board.

