



SAGO STARCH

Sago starch is prepared from the pith of several genera of palms, *Metroxylon*, *Borassus*, and *Arenga*, and from cycads of the genus *Cycas*, native to the East Indies. The starch granules are up to 65 microns.



Borneo is a centre of sago starch manufacturing. Sago palms are cultivated in plantations and the yield of starch is quite high - approximately 7 t ton of starch per ha.



The palm is mature and ready for harvest in 6 - 8 years. It will by then be 24-26 feet high and 17-27 inch thick.

THE TRADITIONAL STARCH PROCESS.

The trunks are cut into 36 inch long logs with a weight of 50-100 kg each for easier transport. The bark is 2 inches thick and removed by hand with a cross axe or in a more modern mechanized way on a conveyor. The logs contain 17 - 22% starch.

The debarked logs are in the traditional process grated and screened on 120 mesh. Crude milk is concentrated and refined in two steps before dewatering on a basket centrifuge and flash dried.

THE MILLENNIUM STARCH PROCESS.

The starch may, however, be extracted with high yield and refined to international quality standards in a modern process and even further modified into specialty starches.

ISI designed the Millennium Process for the extraction and refining of starch from various tropical raw materials. The process is described in greater detail in our Technical Memorandum TM1 on "Tapioca Starch Production"

MARKET

In the form of small whitish, pinkish, or brownish grains, sago has been exported to Europe and America, where it is used mainly for thickening soups and making puddings. Potato "sago" pearls and Tapioca "sago" pearls are produced as substitutes in Europe.

Japan and Taiwan are becoming attractive markets. Both pearl and powder forms are exported.

Sago is an excellent food starch. The cooked gel is clear, viscous and palatable. By chemical modification the starch may be made even more attractive and resistant in industrial food processing where the native sago starch tends to break down.

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