

ABSTRACT

The Preparation of Coconut Cream for
Small-scale Commercial Production

Nirmala Naryansingh

Fully dry mature coconuts were used for the extraction of cream and the volume and mass of fruit components were measured. Also, the effectiveness of various conditions of steam treatment for the removal of the kernel from the shell and testa was determined for three stages of maturity.

For the process of extraction of the cream, two wet methods, viz. Gravity and Centrifugation, and one dry method, viz Pressing, were researched. Under the gravity method of separation, five different kernel to water ratios (1:1.5, 1:2, 1:2.5, 1:3 and 1:3.5) were compared for the extraction of coconut cream, all blended under the same conditions. In the centrifugal method the cream was extracted using the optimum ratio (kernel:water) as determined in the gravitational method. The extracted cream from each method were compared based upon: percentage yield of cream,

percentage oil in cream, percentage moisture in cream, percentage non-fat solids in cream, consistency in cream composition, percentage oil extracted from kernel, appearance of cream and freeze/thaw stability. Also, the residual oil content in kernel fibre and variation in particle size were compared.

The most acceptable cream as determined from the above comparison, was evaluated by sensory panelists for its general attributes and compared with home-made and commercial creams. Also, acceptance testing of different percentages (20,25 and 30) of added fibres to the cream and storage tests were conducted.