

SEPARATION OF ACID SOLUBLE PECTIN FROM PALMYRAH FRUIT PULP

Navaratnam, P., Vasanthi Arasaratnam
and Balasubramaniam, K.

(Department of BioChemistry, University of Jaffna, Sri Lanka)

Pectin is used not only as a food additive due to its gelling properties but also to reduce the serum cholesterol level. Pectin is generally separated from fruits like that of Citrus species. In Sri Lanka pectin is not isolated but imported. Hence a study was made to separate pectin from locally available cheap fruits such as palmyrah fruit. Palmyrah fruit pulp (0.57kg) was manually extracted (0.57 kg l^{-1}) with distilled water (430 ml). The pH of the extracted pulp was changed from 4.8 to 1.3 by adding con. HCL (5.1 ml, sp. gravity 1.18) and the temperature was maintained at 60°C for 30 min. The hot content with acid soluble pectin was strained through a double layer muslin cloth. The extract (740 ml) was centrifuged (4000 rpm) for 10 min and the supernatant was left at room temperature for 48h. The dielectric constant of the extract was changed by mixing with propan-2-ol (50%,v/v) and the acid soluble pectin in the clear supernatant (730 ml) was gelled. The gel formed was washed by resuspending in distilled water (420 ml) and propan-2-ol (775 ml) and left for 1h at room temperature. The pectin gel separated was dried in air (20 min), oven (45°C , 30 min) and finally in a dessicator to attain constant weight. From 0.57 g of pulp 0.1 kg of acid soluble pectin was extracted.

=====