

LOW-COST RECOVERY OF CRUDE PECTIN FROM HORTICULTURAL WASTE
AND ITS APPLICATION IN THE LOCAL FRUIT INDUSTRY

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Pectin is an important ingredient in the food industry and a permitted additive according to food laws. It is found in majority of the higher plants and its property of forming gels under suitable conditions has been exploited in the manufacture of jams and other confectionary.

Sri Lanka imports most or all of her pectin requirements required by the food industry. This study was undertaken to investigate the utilization of horticultural waste (ie yellow passion fruit peel) to recover crude pectin using low cost technology. The above raw material was found to be ideal, mostly because it imparted no off-colour or flavour to the end product; thus blending smoothly with most food ingredients.

Pectin was successfully extracted from the peel by boiling in acid medium using Citric acid and maintaining a pH of less than 3. The pectin-rich slurry was artificially dried at 45°C to a moisture content of 12%. The final product ground to a fine powder (40 mesh sieve) was found to store well under ambient conditions. The yield of crude pectin obtained from yellow passion fruit peel was 15% by weight of peel and was comparable to the yield obtained from apple pomace (10 - 12%).

The recovered pectin adhered to set EEC standards of colour, odour, taste, solubility and other functional properties. It was incorporated into jams and fruit cordials and was found to give spread and consistency to the jam at .03 to .05% level depending on the fruit used and at 2-2.5% level for stabilizing fruit cordials that tend to separate on keeping.

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