

Manufacture of Quick Frozen Vegetables

*(Luffa acutangula, Momordica charantia and Tricosanthes anguina)*

By

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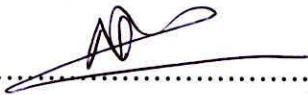
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**Declaration**

The work described in this thesis was carried out by me under the supervision of Prof. Arthur Bamunuarachchi and Dr. K.K.S. Ranaweera, Head of the Department of Food Science and Technology, University of Sri Jayewardenepura, Nugegoda and a report on this has not been submitted in whole or part to any University or any other institution for another Degree.




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We certify that the above statement made by the candidate is true and that this thesis is suitable for submission to the University for the purpose of evaluation.

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# MANUFACTURE OF QUICK FROZEN VEGETABLES

*(Luffa acutangula, Momordica charantia & Tricosanthes anguina)*

By

**N.S.P. de Silva**

## ABSTRACT

This work carried out to study the chemical, physical, sensory qualities and shelf life of blast frozen *Momordica charantia*, *Luffa acutangula* and *Tricosanthes anguina*. Slices of *Momordica charantia*, *Tricosanthes anguina* and *Luffa acutangula* were subjected to hot water blanching and steam blanching for 50 seconds, 60 seconds, 50 seconds, 95 seconds, 45 seconds and 95 seconds respectively and packed in polythene bags. The samples were blast frozen to -28°C and kept for 3 months at -18°C. Ash content, Ascorbic acid, Chlorophyll,  $\beta$  Carotene, Drip loss and Sensory parameters were evaluated periodically during storage.

When considering the effect of pretreatments on the quality of frozen vegetables steam blanching was found to be an effective pretreatment in retaining ascorbic acid, chlorophyll and  $\beta$  carotene content of these vegetables.

95 seconds steam blanched *Tricosanthes anguina*, 95 seconds steam blanched *Luffa acutangula* and 60 seconds steam blanched *Momordica charantia* didn't show any significant difference after 3 months of storage compared to the fresh product.