

Development of Nelli (*Phyllanthus emblica*) Powder Incorporated Instant Rasam Mixture and Evaluation of Its Sensory, Physicochemical and Microbial Properties

R.W.M.A.U.K. Warnakulasooriya¹, R.N.N.A. Wijewardana², W.A.J.P. Wijesinghe¹ and G.E.D.A.M. Jayarathna²

¹*Department of Export Agriculture, Uva Wellassa University, Badulla, Sri Lanka*

²*Institute of Post-Harvest Technology, Anuradhapura, Sri Lanka*

Nelli (Phyllanthus emblica) is one of the underutilized, seasonal fruit crops which contains higher amount of vitamin C as well as other vitamins and minerals. However, due to lack of awareness on its nutritional composition, astringent and bitter taste of the fruit, usage of it for developing food products is in low level. Therefore, this study was conducted to develop a value added product from *Nelli*. *Nelli* powder incorporated instant *rasam* mixture was prepared by mixing 30 % (w/w) of *Nelli* powder with 70% (w/w) of dehydrated powders of the usual ingredients of traditional *rasam*. For select that ingredient combination, preliminary studies and several sensory evaluations were carried out. Sensory evaluations were carried out using 9-point hedonic scale by 30 panelists and considered sensory parameters were aroma, taste, color and overall acceptability. Sensory data were analyzed by Friedman test using MINITAB 18 statistical software. Developed product was packed in metalized film pouches. Storage life of the product was evaluated up to 2 months at ambient temperature. Proximate analysis was done and resulted values for moisture, total fat, crude fiber, total ash and crude protein contents were $5.33\pm 0.03\%$, $2.17\pm 0.23\%$, $8.52\pm 0.18\%$, $3.18\pm 0.06\%$, $9.17\pm 0.65\%$ respectively. Ascorbic acid was determined as it is the main constituent presence in *Nelli*, and it results significant reduction ($p<0.000$) during the storage period. According to the microbiological results product was microbiologically safe for consumption up to 2 months of storage period. This study provides potential on developing value added products from *Nelli*.

Keywords: Nelli, Rasam, Storage life