## Development of Instant Kola Kenda Mixture Utilizing Drumstick Leaves (Moringa oleifer L.), Curry Leaves (Murraya koenigii), Gotu Kola (Centella asiatic), Mung Bean Flour and Unripe Banana Flour

## Somarathna E.G.P.S., Samarakoon E.R.J.\*, Lakmali K.M.¹ and Bandara E.M.S.M.

Department of Food Science and Technology Faculty of Agriculture, University of Peradeniya, Peradeniya, Sri Lanka

In the current Sri Lankan context, about 6.7 million people do not consume an adequate diet while 5.3 million people have reduced the number of meals partake during the day. Further, more than 60% of families are eating less, cheaper, and less nutritious food. The introduction of indigenous and convenient foods with better nutritional quality such as kola kenda will support ensuring food security among the rural population. The aim of this study was to develop an instant kola kenda mixture composed of curry leaves (Murraya koenigii), gotu kola (Centella asiatica), drumstick leaves (Moringa oleifera L.), mung bean flour, and unripe banana flour and characterize the physicochemical, nutritional and sensory attributes of the developed kola kenda mixture. The appropriate proportions of leaf powders and flours were determined by preliminary trials. Accordingly, 5 different product formulations were prepared. The best formulation was selected based on the physicochemical and sensory characteristics. Physical properties did not show any significant difference among formulations. However, higher total phenolic content [87.98±2.75 mg gallic acid equivalents (GAE) per gram of sample in dry weight (mg/g)] and significantly higher (P<0.05) overall preference in the sensory analysis was observed for the formulation which contains gotu kola 4.0%, curry leaves 1.5%, drumstick leaves 1.5%, coconut flour 28.5%, mung bean flour 21.4%, banana flour 21.4%, garlic powder 7.0%, ginger powder 5.0%, and salt 8.5%. The nutritional quality of the selected formulation was analyzed using the Association of Official Analytical Chemists (AOAC) methods and it resulted, crude protein 16.0%, crude fat 0.5%, ash 4.3%, moisture 9.4%, crude fiber 4.8%, and carbohydrates 65.0%. This study revealed that the developed instant kola kenda mixture has the potential to be used as a convenient food source to aid ensuring food security among Sri Lankan communities.

**Keywords:** Flour base, Instant mix, Kola kenda, Leaf powder

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<sup>&</sup>lt;sup>1</sup>HJS Condiments Limited, Biyagama, Sri Lanka

<sup>\*</sup>rasanjalis@agri.pdn.ac.lk