



FORMULATION OF A NATURAL AND NUTRITIOUS FLAVOUR ENHANCER USING LOCALLY AVAILABLE INGREDIENTS WITH HAVING UMAMI TASTE AS A REPLACEMENT FOR MONO SODIUM GLUTAMATE (MSG)

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ABSTRACT

Mushrooms, Tomatoes, Carrots and Garlic were dehydrated and powdered prior to be used as ingredients. These ingredients were mixed according to Taguchi L8 design by changing the ratios to form eight different formulations. The main objective of this study was set as formulation of a natural and nutritious flavor enhancer using locally available ingredients with having umami taste as a replacement for Mono Sodium Glutamate (MSG). Formulations were evaluated based on seven point hedonic scale. Sensory tests were carried out with dhal and bread. Thirty untrained panelists were contributed in the sensory evaluation and samples were analyzed for Appearance, Taste, Odor, Mouth feel and Overall Acceptability. Results were analyzed using MINITAB 14 for Kruskal Wallis non parametric analysis and Mann-Whitney test. Based on the results of two sensory evaluations, sample 767 formulae (Tomato 2: Mushroom 2: Carrot 1: Garlic 1) and 671 formulae (Tomato 2: Mushroom 1: Carrot 2: Garlic 2) Formulae 767 showed the best results. Considering overall results of three sensory evaluations sample 767 was selected for the final product development. Out of all the sample, selected formulae (Tomato 2: Mushroom 2: Carrot 1: Garlic 1) contains the highest level of tomato and mushroom along with the least amount of carrot and garlic compared to other samples. In conclusion, sensory evaluations for eight different ratios of mixing above ingredients revealed that formulae 767 gave the best composition that could be a good replacer for MSG.

Keywords: Mono Sodium Glutamate, Flavor, Sensory Evaluation, Umami taste, Natural