LATOK (*Caulerpa lentillifera*) AND SHIITAKE MUSHROOM (*Lentinula edodes*) AS FUNCTIONAL FOOD FLAVOR IN FOOD PREPARATION

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Final Year Project Proposal Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Applied Chemistry
in the Faculty of Applied Sciences
Universiti Teknologi MARA

AUGUST 2023

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ABSTRACT

LATOK (*Caulerpa lentillifera*) AND SHIITAKE MUSHROOM (*Lentinula edodes*) AS FUNCTIONAL FOOD FLAVOR IN FOOD PREPARATION

This study focuses on natural food flavors containing umami compounds. *Latok* and shiitake mushrooms were used to create a natural functional food flavor with glutamic acid, a potent amino acid contributing to umami taste. The chemical content of *latok* and shiitake was determined, showing a crude extract yield of 33.55% for *latok* and 42.65% for shiitake from 40-gram dry samples using maceration extraction. FTIR analysis confirmed the presence of hydroxyl (O–H), carboxylic acid (C=O), amine (N–H), and alkane (C–H) groups of glutamic acid in the extract. ICP-OES analysis data indicated that the *latok*-shiitake extract's heavy metal content complied with permissible limits of Malaysia Food Regulation 1985. HPLC analysis revealed slightly higher glutamic acid concentrations in *latok* (229.78±73.49 ppm) compared to shiitake (206.45±30.82 ppm), and the combination of *latok*-shiitake containing 210.61±10.48 ppm. Lashi, a new powdered food flavor, was prepared using a dry-grind method. To evaluate the functionality of Lashi, the sensory was conducted with 20 respondents, showing that Lashi was 100% accepted as a new food flavor, with positive feedback on its odor. 66.7% of males and 90.9% of females found Lashi to have a meaty taste, and both males and females found its salty and slightly savory tastes acceptable. The newly functional *latok*-shiitake flavor received positive sensory responses for salty, savory, and meaty tastes, offering a natural salty taste while maintaining healthy organic food flavoring in food preparation, making it a healthier alternative to commercial flavorings.

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