

EVALUATION OF NUTRITIONAL AND PHYSICOCHEMICAL CHARACTERISTICS OF *Lasia spinosa* ROOT

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Lasia spinosa (Kohila) roots are consumed as a vegetable in local Sri Lankan population. It is also traditionally used in ayurvedic medicine due to its high amount of dietary fiber and antioxidant content. Antioxidant, anti-diabetic, anti-hyperlipidemic, anti-bacterial, anti-inflammatory and anti-tumor effects are the certain health benefits that have been identified from *L. spinosa* root. However, the utilization of *L. spinosa* roots in food industry is not much popular in Sri Lanka. The objective of this study was to evaluate certain nutritional and physicochemical properties of locally available *L. spinosa* roots, and impress the potential of applying the *L. spinosa* root flour into functional food formulation. Nutritional properties, such as total starch content, total dietary fiber content, amylose content and amylopectin content, were determined while water holding capacity, oil holding capacity, swelling power and water solubility were determined as physicochemical parameters. Quantified amounts of total starch and total dietary fiber in *L. spinosa* roots (g/100 g dry basis) are 5.68 ± 0.85 and 38.96 ± 1.02 , respectively. Amylose content of the *L. spinosa* root was 79% and amylopectin content was 21% on average. They show 8.38 ± 0.19 g g⁻¹ of water holding capacity and 1.90 ± 0.07 g mL⁻¹ of oil holding capacity. Swelling power and the water solubility were observed as 19.82% and 5.95%, respectively. *L. spinosa* roots contain 38% of dietary fiber that could lead to several health benefits along with physicochemical properties that are favorable for food processing.

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