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Some nutritional aspects of *Lasia spinosa* (kohila)

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A member of the family Araceae, the plant *Lasia spinosa* is a stout, spiny marshy plant with a creeping spiny rhizome. The tender leaves and rhizomes are used as a vegetable. The present study was carried out to determine the total antioxidant activity of *Lasia spinosa* and the contribution to antioxidant activity from the polyphenol fraction and ascorbic acid. In addition, the dietary fiber content was also determined. The antioxidant activity of the samples was determined using 2,2'-azinobis (3-ethylbenzothiazonline-6 sulfonic acid) diammonium free radical cation salt (ABTS) assay with Trolox as the standard (antioxidant activity expressed as μmol/g Trolox Equivalent Antioxidant Capacity (TEAC). Dietary fiber content was determined enzymatically. Rhizomes (n=6) of *Lasia spinosa* were collected from six different markets in the locality near the university.

According to results obtained from this study, *Lasia* rhizome proved to be a rich source of dietary fiber with 40% - 74% of total dietary fiber. The fiber fraction constituted of 36% - 60% and 4% - 17% of insoluble and soluble fiber respectively. The rhizome possessed an antioxidant activity of 144.0 – 957.0 μmol/g TEAC on a wet weight basis with main contributions from polyphenols (39%) and ascorbic acid (43%). These results demonstrate the antioxidant potency of the *Lasia* rhizome which could be the basis for alleged health promoting potential. The high variation in the antioxidant activity in the samples could be due to biological variation, maturity and genetic and climatic effects. These antioxidants could act independently or synergistically with fiber to reduce the adverse effects of various diseases. The present study demonstrates that inclusion of 25-30 g of kohila would satisfy 6-10% of the recommended fiber requirement of an adult (25 g). In addition, this would contribute a considerable amount of antioxidant compounds to the diet. Thus kohila could serve as a good source of functional food with potential health benefits.

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