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Proximate Analysis of Nutritional and Antioxidant Properties of Moringa Oleifera Leaves and Pods

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Abstract: *Moringa oleifera, a plant widely recognized for its nutritional and medicinal value, has been the subject of increasing interest due to its potent antioxidant properties. This study focuses on the physicochemical evaluation and in-vitro antioxidant activity of Moringa oleifera leaves and pods. Standardized procedures were used to determine ash content, moisture levels, pH, and various extractive values (water, alcohol, and ether-soluble), providing a detailed phytochemical profile of both plant parts. The antioxidant potential was assessed using DPPH radical scavenging and total antioxidant capacity assays. Results indicated that the leaves exhibited higher antioxidant activity and contained greater amounts of polyphenols compared to the pods, suggesting their superior free radical scavenging ability. The study confirms that Moringa oleifera is a rich source of natural antioxidants and essential nutrients, supporting its traditional use in promoting health and preventing disease. These findings contribute to the validation of Moringa as a valuable nutraceutical with potential applications in food and pharmaceutical industries*

Keywords: Moringa oleifera, pods and leaves antioxidant**s,** physicochemical evaluation, DPPH radical, nutraceutical

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