

## Comparative Study of Scavenging Activity of Halophyte, *Xylocarpus rumphii* Seed Extracts, and its Product *Gopalu Guliya* by DPPH Assay

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This study investigates the antioxidant properties of two different seed extracts (A<sub>1</sub> and A<sub>2</sub>) from halophyte *Xylocarpus rumphii*, as well as its traditional medicinal product *Gopalu guliya* (B), which is unique to the Southern Province of Sri Lanka. Despite its traditional uses, there is no scientifically proven evidence of the pharmacological properties of *Gopalu guliya*. The present study focused on the antioxidant activity of three methanol extracts (A<sub>1</sub>, A<sub>2</sub> and B) using the 2,2'-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging assay. Seed sample A<sub>1</sub> underwent detoxification by boiling with cow milk before methanol extraction, while seed sample A<sub>2</sub> was directly extracted. All samples were extracted using a rotary evaporator. Antioxidant activity was compared among the A<sub>1</sub>, A<sub>2</sub>, and B methanol extracts using the DPPH assay across varying concentrations. Sample A<sub>1</sub> showed the highest DPPH scavenging activity at 85.3%, followed by A<sub>2</sub> at 83.1%, and B at 55.2% at 50 µg/ml. The extracts from cow milk-boiled seeds and *Gopalu guliya* exhibited higher DPPH scavenging activity compared to the normal seed extract. All extracts demonstrated significant scavenging activity compared to controls and ascorbic acid, highlighting their potent antioxidant properties. Further research is essential to conduct comprehensive investigations into their potential benefits.

**Keywords:** Cow Milk, DPPH Assay, Seeds, *Gopalu Guliya*, *Xylocarpus rumphii*