

**A REVIEW ON RECENT ADVANCES OF
CUCURBITA MOSCHATA EXTRACTS AS A
SUSTAINABLE MATERIAL FOR DIFFERENT
APPLICATIONS**

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AUGUST 2024



**SUBMISSION FOR EVALUATION
FINAL YEAR PROJECT 2 - CRITICAL REVIEW**

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FOR DIFFERENT APPLICATIONS**

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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 2024

ABSTRACT

A REVIEW ON RECENT ADVANCES OF CUCURBITA MOSCHATA EXTRACTS AS A SUSTAINABLE MATERIAL FOR DIFFERENT APPLICATIONS

Cucurbita Moschata and *Cucurbita Moschata Duchesne*, sometimes referred to as Labu manis and Labu loceng, are two types of pumpkin that have gained popularity in Malaysia because of has a high health potential because of its high concentration of nutritional compounds. The bioactive substances found in *Cucurbita Moschata*, including cucurbitacin, phenolic compounds, tannins, carotenoids, and essential oils, have been recognized for a variety of potential health benefits. For example, carotenoids can serve as sources of pro-vitamin A, phenolic compounds are associated with antioxidant activity, and cucurbitacin has been shown to have anti-inflammatory, anti-hypertensive, and anti-cancer properties. The antioxidant and antibacterial properties of these bioactive substances make them very intriguing. The body is protected from oxidative damage by antioxidants, which are necessary for scavenging harmful free radicals. *Cucurbita Moschata* extracts, which are rich in carotenoids and phenolic components, offer interest as sources of antioxidants that might boost human immunity. A comprehensive review of current advances in the extraction and use of *Cucurbita Moschata* extracts with a focus on environmentally friendly and sustainable extraction techniques, the study investigates how different solvents affect the extracts' bioactivity. The possible uses of *Cucurbita Moschata* extract as a sustainable material in food industry, medicine formulations, and cosmetic products. This study highlights the significance of analyzing its bioactive components further in order to support sustainable agriculture, increased food security, and innovative applications in chemistry like as alternative energy sources and environmental remediation.

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