

# **Sugar Palm Tree: A Versatile Plant and Novel Source for Biofibers, Biomatrices and Biocomposites**

## **Abstract**

The use of green materials is a vital component in tackling problems of environmental protection. At the same time, these materials help solve problems arising from the shortage and undegradable nature of petroleum-based materials. Among the numerous green material sources in Malaysia, the sugar palm tree is a versatile plant that can produce biofibres, biomatrices, and biocomposites for a wide range of applications. This paper focuses mainly on the significance of the unutilised part of sugar fibres, as they are highly durable and easy to process. Besides discussing recent advances in research into sugar palm fibres and their biocomposites, this paper also addresses recent advances in research into the development of new biodegradable polymers derived from sugar palm starch. Fibre surface treatment, product development, and efforts to enhance the properties of sugar palm fibre composites are also considered.

**Keyword:** Sugar palm tree; Biofibres; Biomatrices; Biocomposites