

**DYEING COTTON FABRIC USING SOUR BANANA STEM  
(*Musa sp.*) EXTRACTS**



**BY**

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## ABSTRACT

The textile sector benefits several nations throughout the world economically. Consumer interest in natural dyes increased during the last decade as a result of environmental concerns about the production and usage of synthetic colors.

The current research was focused on extracting organic compounds from banana (sour banana) stem. The extract was subsequently conduct testing to determine its suitability as a cotton fabric dye. The appropriate water-based extraction method was applied to obtain organic material from the source. Additionally, a dyeing method was utilized using mordants and pre-mordanting process, which improve the dyeing process by fixing the dye on the fabric material. The dye fixed fabric color was determined. Also anti-bacterial efficacy of the dye and dye fixed fabric was evaluated.

Pure unbleached 100% single jersey cotton fabric in plain weave was scoured, used for dyeing. Banana stem extract obtained from the stem of the Sour banana plant was used as a dye. Ammonium Aluminum Sulfate, Copper Sulfate and Ferrous Sulfate were used as mordants. The color differences was obtained for the dyed samples. Better color was produced using Ferrous Sulfate as a mordant with the banana stem extract in pre mordanting process.

Keywords: Banana stem extract, Mordants, Cotton Fabric, Dyeing, Color

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