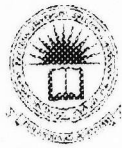


**USING EXTRACTS ORIGINATED FROM NUTS OF
Areca catechu (Areca nuts) AS DYE MATERIAL
ON COTTON FABRICS**



BY

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ABSTRACT

Dyes color textiles, food and other commodities and enhances quality and appeal of product under the competitive market setting. Dyes derived from natural sources have emerged as an important alternative to synthetic dyes which cause environmental issues. Therefore, dyeing efforts were made on cotton using extracts of areca nut (*Areca catechu L*) , which is a readily available natural dye source at a very low cost in Sri Lanka.

Extracts of Areca nuts were obtained using a water-based extraction method. These extracts were used as dye on pretreated, cleaned cotton fabrics with inorganic compounds such as aluminum potassium sulphate, copper sulfate and ferrous sulphate as mordants which that facilitate dye binding on cotton surface.

Also, antibacterial efficacy estimation conducted on Areca nut dye extract solutions and Areca nuts dye extract-dyed cotton produced negative results.

Visual inspection of colored fabrics shows that mordants used improved dyeing cotton fabrics using extracts of Areca nuts. Moreover, use of mordants enhanced shades and brightness of colors on cotton. Specifically, copper sulphate and alum produced light colors and on the other hand, darker shades of color were observed with iron sulphate.

Keywords: Natural Dyes, Cotton, Areca nut, Mordants, Anti-Bacterial Efficacy.

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