

Eco-Friendly Natural Dyes from *Butea monosperma* and Their Application on Cotton Fabric

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Abstract : *Butea monosperma* occurs widely throughout central Indian states. Eco-friendly natural dyes were isolated in aqueous medium from leaves, bark and flowers of this plant. These dyes were used for dyeing on cotton fabric using various chemical (potassium aluminium sulphate, potassium dichromate, ferrous sulphate, stannous chloride & tannic acid) and natural mordants (rinds of *Terminallia bellerica* & *Terminalia chebula* fruits and shells of *Prunus dulcis* & *Juglans regia* nuts). Dyeing was carried out using the pre-mordanting technique. Large range of beautiful shades in terms of hue and darkness were recorded because of varying mordant concentrations and combinations. More importantly dyed fabrics registered varying the degree of colour fastness properties to washing (1-3, colour change and 4-5, colour staining), light (2-4), rubbing (4-5, dry and 3-5, wet) and perspiration (1-4, colour change and 4-5, colour staining). Thus, along with flowers which are traditionally known for natural dyes, the leaves and bark may also find their place in textile industries.

Keywords : *Butea monosperma*, cotton, mordants, natural dyes

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