## **Application of Printing and Finishing Cotton Fabrics with Natural Dyes; a Review**

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This article is about natural dyes for multifunctional cotton coloration and finishing. Cotton, the king of natural fibers, demands coloring, antimicrobial, and UV protection, without damaging cotton's inherent comfort. Therefore, natural dyeing has become an essential requirement in the coloration and finishing of cotton fabrics because of its natural and environmental properties that do not harm people. Furthermore, most natural dyes also have inherently antimicrobial and UV protection properties. They are made from various microorganisms and plant and marine algae parts that contain pigments like tannin, flavonoids, and quinonoid. Here we review the scientific research on printing, antimicrobial finishing, and UV protection of cotton fabrics using natural dyes.

Key words: cotton fabric, natural dyes, printing, antimicrobial finishing, UV protection.