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Perspectives for natural product based agents derived from industrial plants in textile applications-A review

Shahid-ul -Islam, Mohammad Shahid, Fageer Mohammad

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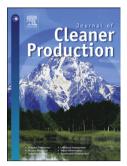
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Corresponding Author: Dr. Faqeer Mohammad,

Corresponding Author's Institution: Jamia Millia Islamia

First Author: Shahidul Islam

Order of Authors: Shahidul Islam; Mohammad Shahid; Faqeer Mohammad

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Abstract: With the consumer's enhanced awareness of eco-safety, there has been an increasing tendency towards the use of sustainable and environmentally friendly materials. In recent years, considerable attention has been give to the products produced from non-food crops for use in various industries notably in the textile industry. Based on biocompatibility, low toxicity, in addition to their recently discovered properties such as anti-feedant, deodorizing, flame retardant, UV protection, and antimicrobial activity are gaining popularity all around world for producing more appealing and highly functional value-added textiles. This review article highlights the most important textile applications of environmental friendly plant-based products such as fibres, polysaccharides, dyes and pigments, polyphenols, oils and other biologically active compounds. This is followed by a focus on plant derived bioactive agents with antimicrobial properties and application of these agents to the textiles. Apart from this, the contribution of plantbased agent to green nanotechnology in recent years for the development of bioactive textiles is also outlined.

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