

# Natural Dyes & Pigments



# introduction

Natural dyes are dyes or colorants derived from plants, invertebrates, or minerals. The majority of natural dyes are vegetable dyes from plant sources. Dyeing is the process of imparting colors to a textile material. Different classes of dyes are used for different types of fiber and at different stages of the textile production process, from loose fibers through yarn and cloth to completed garments. There are technologies that manufacture the pigments for plastics, rubber and cosmetics. Therefore; dyes and pigments have a vast area of applications and have a huge demand in industry. Contrary to popular opinion, natural dyes are often neither safer nor more ecologically sound than synthetic dyes.

They are less permanent, more difficult to apply, wash out more easily, and often involve the use of highly toxic mordant. Of course, the colour possibilities are far more limited; the color of any natural dye may be easily copied by mixing synthetic dyes, but many other colors are not easily obtained with natural dyes. However, some mordant are not very toxic, and the idea of natural dyestuffs is aesthetically pleasing. Applying natural dyes in your fabric production using enzymes will reduce your production cost and improve control. There are various kind of natural dyes; quinonoid dyes, cyanine dyes, azo dyes, biflavylyl dyes, omochromes, anthraquinone, coprosma gesus etc.



The use of natural dyes in cloth making can be seen as a necessary luxury to trigger off a change in habits. Dyes which stand out for their beauty and ecological attributes would never be employed on just any material but on noble fabrics such as wool, silk, linen or cotton, made to last more than one season. Market value will benefit from consumer preferences for environmentally friendly products, which will support consumption of high performance dyes and organic pigments. This book basically deals with the use of carotenoids as food colours , bianthraquinones and related compounds,



products of biflavonyls, dyestuffs containing nuclear sulphonic and carboxylic acid groups, quinonoid dyes, cyanine dyes, optical whitening agents, natural dyes for food, stability of natural colourants in foods effect of additives, pyrimidine pigments, the total synthesis of the polyene pigments, red pigment from geniposidic acid and amino compound, effect of acid and amine on the formation of red pigment from geniposidic acid, effect of the substituted position of amino group and chain length of amino compound etc.

Due to pollution problems in synthetic dyes and pigments industry, the whole world is shifting towards the manufacturing of natural dyes and pigments. The present book contains techniques of producing different natural dyes and pigments, which has huge demand in domestic as well as in foreign market. It is hoped that entrepreneurs, technocrats, existing units, institutional libraries will find this book very useful

## MARKET OUTLOOK

The market outlook and growth prospects of the global dyes and pigments market for 2016-2020. The market is further categorized into three product segments, which include dyes, organic pigments and inorganic pigments.

While the global dyes market will grow at a cagr of 3.9% between 2015 and 2020, the global pigments market will register a cagr of 4.05%. Dyes and pigments are used in various end-use applications like dye colorants for textiles, pigmented inks for printing inks, tinting and shading resins of plastics, and as colorants for paints and coatings, and the considerable growth potential of these industries bodes well for the global dyes and pigments market.

The worldwide market of dyes and organic pigments is expected to grow 6 percent per year to reach \$19.5 billion in 2019 from \$14.5 billion in 2014.



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Dyes Colors & Pigments, Dyes Dyeing and Pigments, Natural dyes, Natural Colorants for Dyeing and Pigments, How to make ink from natural dyes, Dyes and Pigments, Natural dye yielding plants in India, Natural Dyes (from plants and insects), Dyes and Dye Intermediates, Pigments Making Natural Dyes from Plants, natural dyeing techniques, Natural pigment production, All Natural Ways To Dye Fabric, Technique of natural dyeing and traditional pattern, Sustainable Technique on Natural Dye, Best Plants For Dyeing, Natural dye yielding plants in India, Natural Vegetable Dyes, How to Dye Fabric & Clothes, Natural Dyeing of Cotton Fabrics with Dyes, Natural Dyes for clothes, Making Natural Dyes from Plants, ideas about Natural Dye, Natural dyes from dye plants, How to Make Natural Dyes to Dye Fabric & Clothes, How to dye clothes using natural methods, Natural Dyes Producer India, Natural Dyes Drying on clothes, How to Make and Use Natural Dyes, natural dyeing techniques, Growing Color Natural Dyes from Plants, How to Tie Dye With Natural Dye, How to Make Natural Dyes to Dye Fabric & Clothes, Natural Pigments from Plants, Natural dyes in India, natural pigments from plants, How to make natural pigments, natural dye pigments,



Making Simple Sustainable Paints with Natural Pigments, Production of Pigments, how to manufacturing natural dyes, how to manufacturing natural pigments, Black pigments, Biflavonyl Pigments, Disperse dyes, Quinonoid dyes, Cyanine dyes, Natural Dyes Producer India, Natural and Vegetable Dyes, Pyran Pigments, Pyrimidine Pigments, Polyene Pigments, Red pigment, vegetable dyes for textiles, natural dyed fabrics India, natural dyes from plants, sources of natural dyes, vegetable dyes for clothing, How to Make Natural Purple Dyes From Plants, growing, harvesting and using natural dye plants, Making and Using Natural dyes plants, Dyeing Wool with Natural Plant Dyes, How to make plant based dyes, Natural dyes and dyeing from woodland plants, Dye-Producing Plants, Growing Plants for Natural Dyes, Natural Vegetable Dyes, Vegetable Textile Dye Colors, Naturally Dyed Textiles, Extracting natural plant dye, Commercially adoptable process for manufacturing. Natural dyes for cotton, Small-scale natural dyes production, How is dye extracted from plants?, What is a natural dye?, Natural Colors - Natural Dyeing, How to Start Natural dyes Processing Industry in India, Natural dyes and pigments Processing Industry in India,



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- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*



- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
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- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
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- *Ferro Alloys Based Projects*
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- *Hotel & Hospitability Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
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- *Infrastructure Projects*
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- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*



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- *Paints, Pigments, Varnish & Lacquer*
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- *Printing Inks*
- *Packaging Based Projects*
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- *Power Generation Based Projects & Renewable Energy Based Projects*
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- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
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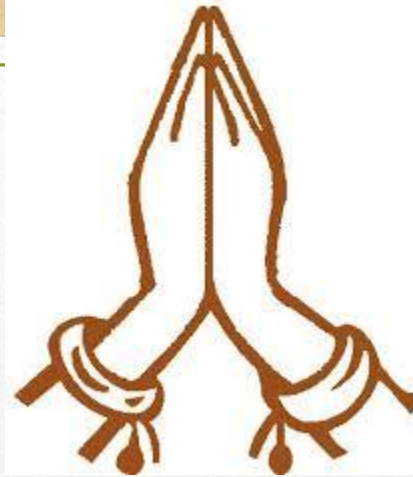
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