



# Technology of Dyeing Cotton and Silk with Natural Dyes

## Technology Description

Colouring fabrics is a creative and lucrative art nurtured and patronized through centuries. The muted earth colours yielded harmonious and pleasing results.

Natural dyes can be satisfactorily applied for colouring cotton, silk, wool, jute, banana and many other natural fibers. At present it is possible to produce dark shades which are fast to all serviceable conditions.



Name Of institute:  
College of Home Science, Saifabad, Hyderabad  
Stage of development:  
Ready for commercialization  
Patent status: No  
  
Scientific Experts:  
Dr. A. Sharada Devi

## Background

As far as natural dyes are concerned, India had a virtual monopoly in their production and applications. It is evident from the literature that around 500 plants can give rise to natural colours. Difficulty in colour matching by batch wise and mixing of colours etc are the limiting factors of the natural dyes. Production of natural dyes in textiles is limited only few pockets of handloom and handicrafts such as kalamkari, patta chitra, madhubani, resist prints of Rajasthan etc. The expertise once practiced by the artisans is lost through generations. The dyeing and printing procedures followed for production of exquisite lexode are not available to the next generations as they were not documented. Therefore researches in this area have become

## Benefits / Utility

The synthetic dye users are facing pollution problems as pollution control board has issued notices to the synthetic dyeing units to close down. The effluents of the natural dyes are harmless, non-toxic, ecological friendly. Therefore it solves the pollution problems permanently and the dyers can continue their dyeing practices. The colours are gentle, soft and subtle and create a restful effect. The colour is enhanced with age and mellows to increase beauty. Help to create more designs and variety. They are non toxic, non allergic and non carcinogenic. Some of these natural dyed products safeguard the health. They are bio-degradable and exhibit higher degree of compatibility with the environment. They also act as manure and enrich soil.

Natural dyed cotton and silk have good market potential due to their health care benefits. The economics involved in dyeing with natural dyes is one and half times costlier than dyeing with synthetic dyes, but the benefits arrived is two times more. More over the technology can be projected as eco friendly and ethical and life supporting and

## Country

India

## Business and Commercial Potential

Business Potential: Market size is One crore per annum at present, which will enhance further. Market Response: The technology is highly valued for its advantages over other synthetic powders existing in the country. Good scope for exports. Total eco-friendly process. No need of effluent treatments. No need of government clearance

## Potential investors to this technical innovation

Colour manufacturers Paint manufacturers



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## Financials

VALUE OF THE TECHNOLOGY: Tech commercialization fee to be charged from one licensee= Rs 1.00 lakh  
Financial required: Non recurring: Fix assets (Land & building) = 2600sq.ft X Rs.1200 per-sq.ft = 31,20,000, Machinery = Rs. 17,33,000, Others=Rs.2,83,000, Cost= Rs. 51,36,300 (Rs.51.37 lakhs), Recurring: Cost = 14,92,058, Total cost= Non-recurring + recurring = 51,36,300 + 14,92,058 = Rs.



## Target Market / Customer

Boutiques Wholesalers Retailers Exhibitions and shows Social

## Limiting factors for large scale commercialization

Shade matching batch wise Non-Availability and Potential use of raw materials Marketing strategies and linkages High cost of products

## Social impact of the technology

Revives the old traditional practices of natural dye and enhances the social harmony in the society. Provides protection to environment through pollution free technologies

