

## Our Story

To find ourselves within nature is the bliss to understand nature through our work. There are challenges while working with natural dyes in this society, where synthetic dyes are bright, fast, easy to apply, widely spread, and available at low cost. Though natural dyes have lots of limitations. But we think those are not limitations, those seem as limitations when compared with the commercial dyes. We also working on the application of these natural dyes on other materials than textiles, such as madur kathi for home furnishing, leather, Jute fiber for packaging material, and application on bioplastic materials. It feels wonderful to see this versatile way of nature. It produces the same thing again and again but there is a uniqueness in every object, event, and life.

Lesya Nat Chroma is an Eco fashion label founded by Dr. Kunal Bhandari in Santiniketan, Birbhum, West Bengal, India, Kunal Bhandari started as Nature O Cell in 2018. In 2022, Lesya Nat Chroma was added as the company Lesya Nat Chroma by Nature O Cell®, with the creative product-based brand.

Lesya Nat Chroma is a manufacturing unit, working with different applications of natural resources i.e. dyeing of yarn or fabric, printing, hand painting, hand embroidery, garments, and recycling of wastes into a value-added product. Apart from retails garments we also work on sustainable services as Nature O Cell® (Reg. No: 5342987, GSTIN:19BZOPB4117K1Z6, DIC Reg.:UDYAM-WB-04-0004560).

We do both B2B for the Export market and Fashion Designers (Yarn Dyeing and Fabric Dyeing / Screen, Block, Eco-Printing/Weaving) and B2C (Scarves and Garments) businesses using natural colorants and natural fibers following eco-friendly pathways. We supply our products in retail stores and do our services by dyeing and printing for other brands and designers in small and bulk quantities. We have done various shade development and shade matching towards a target shade and also worked on the fastness properties and finishing of natural dyes.

Major steps were taken by Lesya Nat Chroma toward sustainability

- We designed our process parameters and apparatus while using renewable energy resources, which provides our working environment smoke/fume free.
- Our drain water is biodegradable which maintains the soil/water ecology.
- We recycle the plant waste generated after the extraction of coloring components from natural resources. We can also recycle the wastes generated from other natural dyeing houses through our technology, towards the green future of tomorrow.
- Our products are based on natural fibers along with natural dyes, which completely decompose leaving a sustainable impact on our environment.
- All our processing parameters are based on biochemicals that do not leave any carbon footprint.

We have been working on the industrial production level for the last Thirteen years and with a research-level of experience for nine years along with publications in different journals and seminars/conferences. Some of them are entitled below -

- The poster paper entitled "Natural Dyes – A Step towards Cottage to Commercial Production" was presented at the International Conference (ICTX 2020) on the theme of "Innovative Approaches for the Development of Sustainable Products and Process" organized by The Institute of Engineers (India), during 9-10 February 2020.
- The paper entitled "Waste Management from Natural Biomass" was presented in the National Seminar on "Waste Management of Local Self Government (Municipalities and Panchayats)" organized jointly by Palli Samgathana Vibhaga and Institution of Public Health Engineers, India at Visva-Bharati, Sriniketan during 16-17 March 2018.
- A Review Article and a book chapter published on the Medicinal properties of Natural Dye were selected in the National Workshop & Seminar on "Vegetable Dye and its Application on Textiles" at Visva-Bharati University.
- Dyeing of Silk and Wool with *Adina Cordifolia* and *Acacia Arabica*, International Journal of Emerging Technology and Advanced Engineering, 8(2), 2018, pp261-266, ISSN:2250-2459.
- Dyeing of Silk and Wool with *Madhuca Indica*, Asian Dyer, Oct-Nov 2012, pp 41-47.