

SUSTAINABLE TEXTILES – PART VIII

REF: TT/ JUNE 2022/ WK 3

Ecofriendly dyes or Natural dyes

Natural dyes are ecofriendly and fully sustainable as they can be derived from renewable sources and does not cause harm to the environment. Synthetic dyes cause skin irritation, illnesses and are carcinogenic in nature. The people in general are at risk from skin sensitization through coming into contact with certain reactive dyes, azo dyes and triphenylmethine derivatives. Azo dyes, cleave to yield an aromatic amine, which is carcinogenic. Unlike artificial or chemical coloring agents, they are non-allergic and have antimicrobial properties. Additionally, they are biodegradable and cause no disposal problems, non-toxic and non-allergic. Thus, the use of natural dyes helps in preventing pollution and is also essential for workers' well-being. Though these dyes are used for textile dyeing and printing until mid of 19th century. But, the use was reduced due to the innovation different types of synthetic dyes. However, the growing consumer awareness on harmful impact of synthetic dyes, concern for environment worldwide and stringent environmental laws cause the revival of natural dyes. The use of natural dyes is gaining momentum with designers shifting to sustainable fashion.

As name suggests, natural dyes are colored substances made up from natural resources.

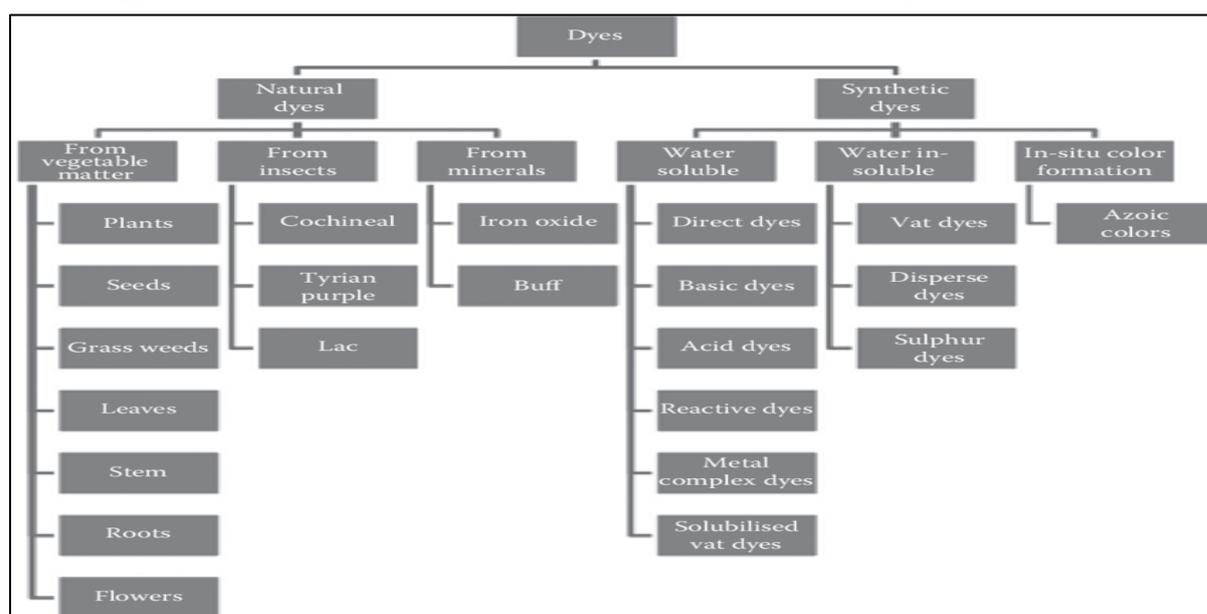


Fig 1.1 Classification of dyes

Ref: researchgate.net



Natural dyes are classified into three types of source of origin vegetables, animals and minerals. These dyes are derived from plants, animals, or minerals. The majority of natural dyes are vegetable dyes from plant sources like roots, berries, bark, leaves, wood and other biological sources such as fungi. Below are some of the common natural dyes that are widely used for dyeing textile materials.

- **Tumeric** - Tumeric seems to be the most common dye. The tumeric obtained from the roots of the plant is first dried, then crushed into powder and boiled with water to extract the dye. It is commonly used for dyeing cotton, wool and silk.
- **Onion skin** - Onion skin is the main source of dyes. It is boiled to remove the color from the onion skins and dyed without mordanting the fabric. The result is a shade of orange to brown on the fabric.
- **Madder roots** - Red dye prepared from herb called Madder. Cotton, silk and wool fibers can be dyed with Madder. It gives bright red shades on wool and silk and reddish to purple shades on cotton.
- **Indigo tree** - Indigo dye is obtained from *Indigofera tinctoria* and gives a shade of blue.
Henna Leaves - The leaves of the henna tree are dried and ground and then boiled with water to get the dye out of the leaves. Polyester and nylon can be dyed by henna.
- **Jack fruits** - The wood of the jackfruit plant is finely chopped and then boiled in water to extract the dye. It was used for dyeing cotton and jute fabrics.
- **Logwood** - The color is extracted by boiling the stem of the logwood tree in small pieces. Logwood is used to create black shades on wool.
- **Lac Insects** - Lac dye is made from a special insect (Coccus Lacca). It mainly produces scarlet to crimson red shades. This pigment produced by insects is called stick lac.

References:

1. <https://in.fashionnetwork.com/>
2. <https://www.the-sustainable-fashion-collective.com/>
3. <http://www.fibre2fashion.com/>
4. <https://textilefocus.com/>
5. <https://therunningrepublic.com/>

.....To be continued.....

UNSCRAMBLE THE JUMBLE WORDS
TUNALAR
RICMETUR
NNIOO
GWOOLD

Last week`s Answers: 1) SUMMER 2) PSUEDO 3) COCONUT 4) TEXTURE

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