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ECO - FRIENDLY NATURAL COLORS YIELDING FLOWERING PLANTS OF COLLEGE CAMPUS KILA BHAVAN INDORE DISTRICT (M.P.) – A SURVEY REPORT

Saroj Mahajan*, Padma Upadhya*, Malini Johanson**, Neelu Malviya***
Department of Botany*, Department of Botany* *, Department of Chemistry**
*Govt. Maharani Laxmi Bai Post Graduate College Kila Bhavan, Indore, MP, INDIA.
Govt. Bherulal Patidar P.G. College Mhow, MP, INDIA.

INTRODUCTION

Color is one of the elements of nature that made the human living more aesthetic and fascinating in the world. They are supposed to be associated with emotions, human qualities, seasons, festivals and passion in our life .I n India, there are more than 450 plants that can yield bright colors. Natural dyes are environment friendly such , turmeric, the brightest ofnaturally occurring yellow color is a powerful antiseptic which revitalizes the skin, (R.Siva,2007)*Punicagranatum*L. (Anar)*Lawsoniainermis*L.(henna), and manyother common natural color yielding plants(Hussein, 1997)The present study mainly focuses on some important plants having color yielding potential. As many as 25species were screened for coloiouring. These species belonging to25genera and 18families are presented in this paper. The botanical names, family,vernacular name and parts from which color is obtained and the colours fixed after treating withrecommended mordents.Natural colorants derived from flora and fauna are believed to be safe because of its nontoxic, non-carcinogenic and biodegradable in nature (Cristea&Vilarem, 2003). Different parts of the plants were used for the extraction of dyes such asbark , leaves, flowers, etc and different types of mordents were used for fixing the dye into the fabric.Study of available literature shows that several studies werecarried out on natural color yielding plants in the recent past. (A. Rashmi*el.al.*, 2004, Debajitand Tiwari 2005, Gour 2008 and Garg*et al*., 2010) color yielding plants are not properly studied with reference to Madhya Pradesh, **(**Tiwariand Bharat 2008), (Choudhary and Upadhyay 2011) Present work is undertaken to study the color yielding plants of Sehore district.

STUDY AREA

College is basically a Fort of Holker Emperor .The area of Fort is 52610 Sq. Meter. Holker Emperor constructed it in 1860; it was constructed by cementand lime. The college established in 1963 in the Fort.The study site and surrounding area is rich in flora.Floristic composition is the major morphological characters of the plant community. Thus, a detailedsurvey of the floristic vegetation was carried out in and around the study site .After survey 25 plants selected for extraction of natural colors .

MATERIAL AND METHODS

Test of natural colors in Plant parts.

1.Squeeze the plant part preferably flowers and leaves between the fingers if color is dis charged, it may be a good source of natural color.

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2.If the color is retained on the fingers even after washing the and with water, it may be a good source of natural dye with probably good wash fastness.
3.Crush the plant part in pestlemortar and smear the crushed plant paste on filter paper, if the color retains on paper, it may be a good source of natural dye.
4.Place this filter paper under table lamp for 3- hours, see if the color remains the same orfades off, if the color does not fade, it may be a good source of natural dye with good light fastness properties.
5.Shake boiled water and put crushed plant part, if it releases color into the water, it may be a source of natural color.
By following above procedure in laboratory recorded the different colors obtained from different plant parts which are present in college campus. Observation recorded and as shown in Table

S.N.	Botanical name	Local name	Family	Plant part	Natural color
1	*Abutilon indicum Linn.*	Kanghi,	Malvaceae	Flowers	Yellow
2	*Acacia nilotica Linn.*	Babool	Mimosaceae.	Bark	Brown
3	*Aegle marmelosn linn.*	Bel	Rutaceae	Fruit and bark	Brown
4	*Anthocephalus cadamba Miq.*	Kadam.	Rubiaceae.	Bark	Brown
5	*Azadirachta indica.A. Juss.*	Neem	Meliaceae	Bark	Brown
6	*Bouganvilia spectabilis*	Kagaz ke phool	Nyctaginaceae	Flower	Red
7	*Bauhinia variegata Linn.*	Kachnnar	Caesalpiniacea	Flower	Yellowish brown
8	*Carica papya*	papita	caricaceae	leaf, fruits.	green, orange
9	*Catharanthus roseus Linn.*	Sadabahar	Apocynaceae.	Flower	Cream yellow
10	*Clitoria ternatea Linn.*	Aparajita	Fabeaceae	Flower	Blue
11	*Cassia fistula*	amaltas	Caesalpiniacea	Flower	yellow
12	*Thevetia peruviana pers.*	kener	Apocynaceae	flower	yellow
13	*Delonix regia Rafin.*	Gulmoher	Caesalpiniacea	Flower	Red
14	*Hibuscus rosa-sinensis Linn.*	jasum	Malvaceae	Flower	Violet
15	*Ixora coccinea Linn.*	Rukmani	Rubiaceae	Flowers	Red
16	*Lawsonia inermis Linn.*	Mehndi	Lythyraceae	leaf	orange
17	*Mangifera indica Linn.*	Mango	Anacardiaceae	Bark	Brown
18	*Michelia champca Linn.*	Champa	Magnoliaceae	Flower	yellow
19	*Nyctanthus arbortristis L.*	Parijat	Oleaceae	Flower	Light brown
20	*Eucalyptus globules Labill*	Neelgire	Myrtaceae	Bark	Khaki
21	*Psidium guajava Linn.*	Amarud	Myrtaceae.	Bark	Brown
22	*Dalbergia sissoo Roxb.*	seesham	Fabeaceae	Fruit , bark	Brown
23	*Mirabilis Jalapa Linn.*	Gulabas	Nyctaginaceae	flower	Red
24	*Punica granatum Linn.*	Anar	Punicaceae	fruit	brown
25	*Nerium oleander Linn.*	Kenar	Apocynaceae	flower	pink

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RESULT AND DISCUSSION

From the observation and results, it can be oncluded that during Preliminary survey it was recorded that the college campus rich in vegetation luxuriant growth of trees,under shrub, shrubs and herbs were registered . Diwangi (1980) studied the vegetation of Indore district. From the study area 25 plants recorded as a natural color yielding plants. The plant part flowers and bark dominated as a plant parts from which the brown and yellow natural color obtained.Nowadays most of the natural colors are interested to use natural dye materials in the same ways used for synthetic dyes. Textile dyers must know the chemistry of these natural colors and its Use of suitable binary or ternary mixtures of similar or compatible natural dyes for coloring natural eco-friendly textiles in variety of soothing /uncommon shades with eco-friendly mordants and finishing agents are the most desirable product of the customers for future. Thus with the worldwide concern over the use of eco-friendly and biodegradable materials, the use of natural dyes has undoubtedly once again gained interest and momentum.

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