

Dyes from plants: North east region from Nashik district, Maharashtra

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Abstract

Total 26 plant species belonging to 18 families discussed in this article. Out of 26 plants 7 herbs, 9 shrubs, 3 climbers and 7 trees are documented which are used by the tribals of the region for festivals, ceremonies and cultural practices. The dyes and colours are used at the time of festivals like Holi, Rangpanchami, Nagpanchami, Navratri, Dussera, Diwali, etc. which are surviving our traditional heritage. The tribals also using these dyes for painting their homes, clothes, wooden furniture, and utensils.

Keywords: festivals, holi, tribal

Introduction

The plants are the ultimate source of each and every thing of human being. Man is totally depending on plants from the ancient days. The role of plant in everyday life is vital. When the human civilization began that time man was only in search of food and he got the methods of cultivation and utilization. As days passed, needs grown and human tried to use the plants for different purposes. When human lived in society he started the celebrations, festivals, ceremonies in the name of the God and Goddess. They made the calendar as per their culture, tradition and religion. When humans came to know regarding the colorful roots, stems, leaves, flowers, fruits, seeds etc. he developed colours for paints on doors, cloths and for few other purposes. When he started to celebrate festivals he made colours by using plants with different plant parts. Currently the tribals are using the methods of colour making for Holi, Rangpanchami, Nagpanchami, Navratri, Dussera, Diwali, etc. and survive our traditional heritage. The tribals also using these dyes for

painting their homes, clothes, wooden furniture, and utensils.

Colours are thrown at the time of Holi and Rangpanchami. Now they are using for cosmetics, drugs, food products. They sold the products too. The organic colours they are using are eco-friendly and healthy with low cost and easy to made at home.

Methodology

The information regarding the dye yielding plants is gathered from the tribals of the region. Their festivals were joined and tried to understand their traditional importance, purpose and methodology. The plants and their parts were documented with preparation methodology. The plants were identified by using Flora of Nashik district by P. Lakshminarasimhan and B. D. Sharma. The plants are arranged according to alphabetically.

Table: Dye yielding plants

Table 1

Sr. No.	Name of the plant	Habit	Plant Part Used	Uses with preparation methodology
1	<i>Acacia catechu</i> (L.f.)Willd. Family – Mimosaceae	Tree	Wood, Bark	1. The wood is soaked overnight in water, boiled on Chulha and the Red extract is used as Katha for pan. 2. The extract is used for painting on door and clothes.
2	<i>Basella alba</i> L. Family – Basellaceae	Climber	Fruits	1. The seeds are soak in water, crushed and used as dye and colour for painting. 2. Colour used in foods.
3	<i>Bixa orellana</i> Linn. Family - Bixaceae	Shrub	Seeds	1. Seeds are very rich in orange colour. The seeds are crushed in water and used as dye for colouration of clothes, homes and utensils. 2. Colour used for Holi and Rangpanchami festival. 3. Paintings are sketch on walls at the time of Nagpanchami, Dussera and Diwali. 3. Colour applied on musical instruments.
4	<i>Bombax ceiba</i> L. Family – Malvaceae	Tree	Flowers	1. The flowers kept overnight in water, boiled and the extract used for decorative purpose of utensils, wall painting, clothing and art and crafts.
5	<i>Butea monosperma</i> (Lam.) Kuntze. Family – Fabaceae	Tree	Flowers	1. The flowers crushed and kept in water for few hours. Colour use for Holi and Rangpanchami. 2. Colour added in food preservatives.
6	<i>Bougainvillea glabra</i> Choisy Family – Nyctagenaceae	Shrub	Flowers	1. The flowers are crushed and soak in lukewarm water and used as colour for Holi, Rangpanchami and to paint utensils as decorative purposes.
7	<i>Calatropis procera</i> (Aiton) W.T.Aiton Family – Apocynaceae	Shrub	Latex	1. Latex is used for wall paintings at the time of Nagpanchmi.

8	<i>Clitoria ternatea</i> L. Family – Fabaceae	Climber	Flowers	1. Dried and fresh flowers are used for colour making. 2. Colour used for different purposes such as art and crafts and utensils decoration.
9	<i>Chrozophora tinctoria</i> Hook. F. Family – Euphorbeaceae	Herb	Fruits	1. Fruits are crushed, mix in water and used for painting on cloths, walls and utensils. 2. The dye is rich in dark black blue colour. 3. School students use the colour for drawing.
10	<i>Cocculus hirsutus</i> (L.) W.Theob. Family – Menispermaceae	Climber	Fruits	1. The fruits are soaked in water and the colour is use for cloth painting, wall painting and utensils.
11	<i>Commelina bengalensis</i> Linn. Family – Commelinaceae	Herb	Flowers	1. Flowers are made into paste and mixed in water. 2. Colour use for Rangpanchami and Holi. 3. Flower juice use by children's for notebook and drawing book paintings.
12	<i>Curcuma longa</i> L. Family – Zingiberaceae	Herb	Root	1. The roots are soak in lukewarm water along with gram flour is used as colour for Holi, Rangpanchami, Diwali, Dussera. 2. Colour used for cloth painting and art and crafts purposes.
13	<i>Hibiscus rosa-sinensis</i> L. Family – Malvaceae	Shrub	Flowers	1. Flowers are boiled in water and the extract is used for paintings. 2. Flowers are crushed and the juice is kept for few days in glass bottle and used as food preservative.
14	<i>Indigofera tinctoria</i> Linn. Family – Fabaceae	Herb	Flowers	1. Flowers are crushed and mix in water, extract is filtered and used as colour for Rangpanchami, Holi and Nagpanchami. 2. Flower juice is filtered and used for utensil paintings.
15	<i>Impatiens balsima</i> Linn. Family – Balsaminaceae	Herb	Flowers	1. The flowers are crushed with water and the extract is used as dye for wall and cloth painting.
16	<i>Ixora coccinea</i> L. Family – Rubiaceae	Shrub	Flowers	1. Flowers juice used to paint utensils. 2. Homemade decorations are coloured.
17	<i>Lantana camera</i> L. Family – Verbenaceae	Shrub	Fruits	1. Fruits crushed on palm, mix in water and used for wall paintings. 2. Fruits are added in pan for sweet test and to colour tongue for local dances.
18	<i>Lawsonia inermis</i> L. Family – Lythraceae	Tree	Leaves	1. Leaves are dried, powder soak in water and used on foots and palms for colouration. 2. Design is sketch on palms in festivals, ceremonies and marriages. 3. Bride and Groom with his family members sketch the paintings, designs, names on palms and hands in wedding ceremonies.
19	<i>Morus alba</i> L. Family – Moraceae	Tree	Fruits	1. Fruits are soaked overnight in water and the colour is used for Rangpanchami, Holi and at the time of different celebrations. 2. Colours are applied on face as celebration in festivals.
20	<i>Nerium indicum</i> L. Family – Apocynaceae	Shrub	Flowers	1. Flowers boiled in water and the extract is used as colour for decoration, wall painting.
21	<i>Punica granatum</i> Linn. Family – Lythraceae	Shrub	Fruits, Seeds	1. Seeds are placed in water for few hours, the colour is used in foods for colouration. 2. Seed extract use for cloth paintings. 3. Colour used for Holi and Rangpanchami celebrations.
22	<i>Spinacia oleracea</i> L. Family – Amaranthaceae	Herb	Leaves	1. Leaves are crushed and the extract is used as dye for cloth and utensil paintings. 2. The green colour used in decorations in festivals.
23	<i>Syzium cumini</i> (L.) Family – Myrtaceae	Tree	Fruits	1. Fruits are soak in water for two – three days, the pulp is filtered and the colour is used for multiple reasons.
24	<i>Tagetus erecta</i> L. Family – Asteraceae	Herb	Flowers	1. Flowers are boiled in water, the colour is used at the time of Dussera, Diwali ceremonies and in home paintings. 2. Utensils, cloths are coloured.
25	<i>Tamarindus indica</i> L. Family – Fabaceae	Tree	Seeds	1. Seeds are soaked in water and the pulp is used as dye for Ghongadi. 2. Seed pulp used to paint and coloured cloths.
26	<i>Woodfordia fruticosa</i> Kurz. Family - Lythraceae	Shrub	Flowers	1. The flowers are crushed and used as dye for cloth paintings and home decorations. 2. Flower colour used for Holi and Rangpanchami celebrations. 3. Utensils and musical instruments are coloured.

Table 2: Family wise break up of plants

Sr. No.	Name of the family	Number of Species
1	Amaranthaceae	1
2	Apocynaceae	2
3	Asteraceae	1
4	Balsamnaceae	1
5	Basellaceae	1
6	Bixaceae	1
7	Commelinaceae	1
8	Euphorbiaceae	1
9	Fabaceae	4
10	Lythraceae	3
11	Malvaceae	2
12	Menispermaceae	1
13	Mimosaceae	1
14	Myrtaceae	1
15	Nyctagenaceae	1
16	Rubiaceae	1
17	Verbenaceae	1
18	Zingiberaceae	1

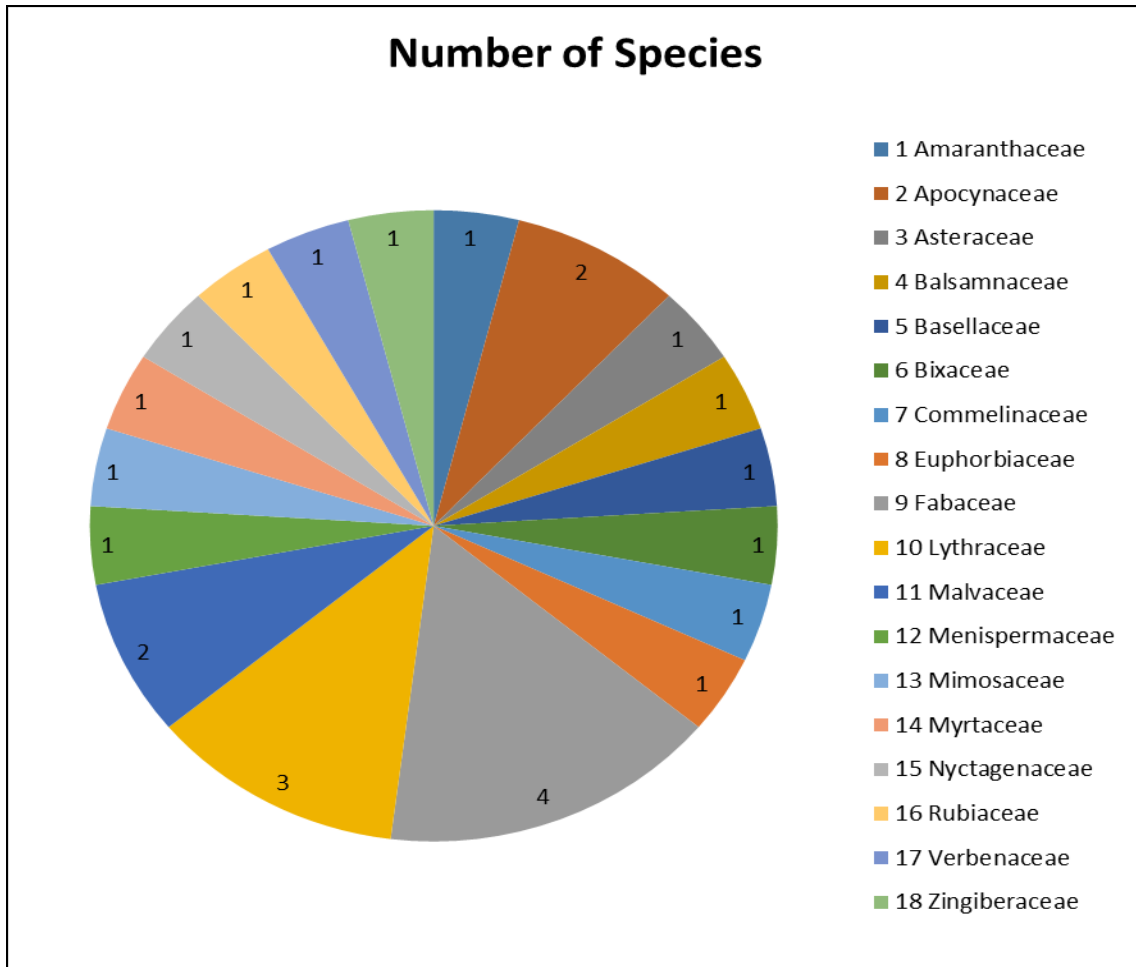


Fig 1: Graph showing family wise break up of plants

Table 3: Habit wise break up of plants

Sr. No.	Habit	Number
1	Herb	7
2	Shrub	9
3	Climber	3
4	Tree	7

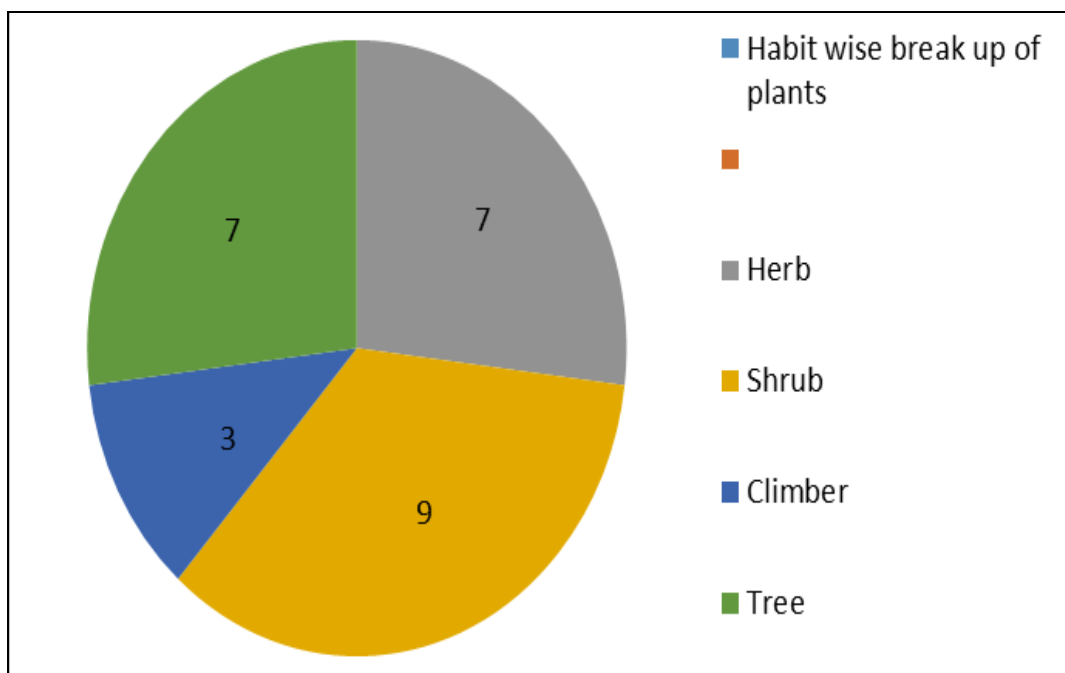


Fig 2

Table 4: Plant part wise break up of plants

Sr. No.	Name of the plant part	Number
1	Root	1
2	Stem	3
3	Leaves	2
4	Wood	1
5	Bark	1
6	Flower	13
7	Fruit	7
8	Seed	3
9	Latex	1

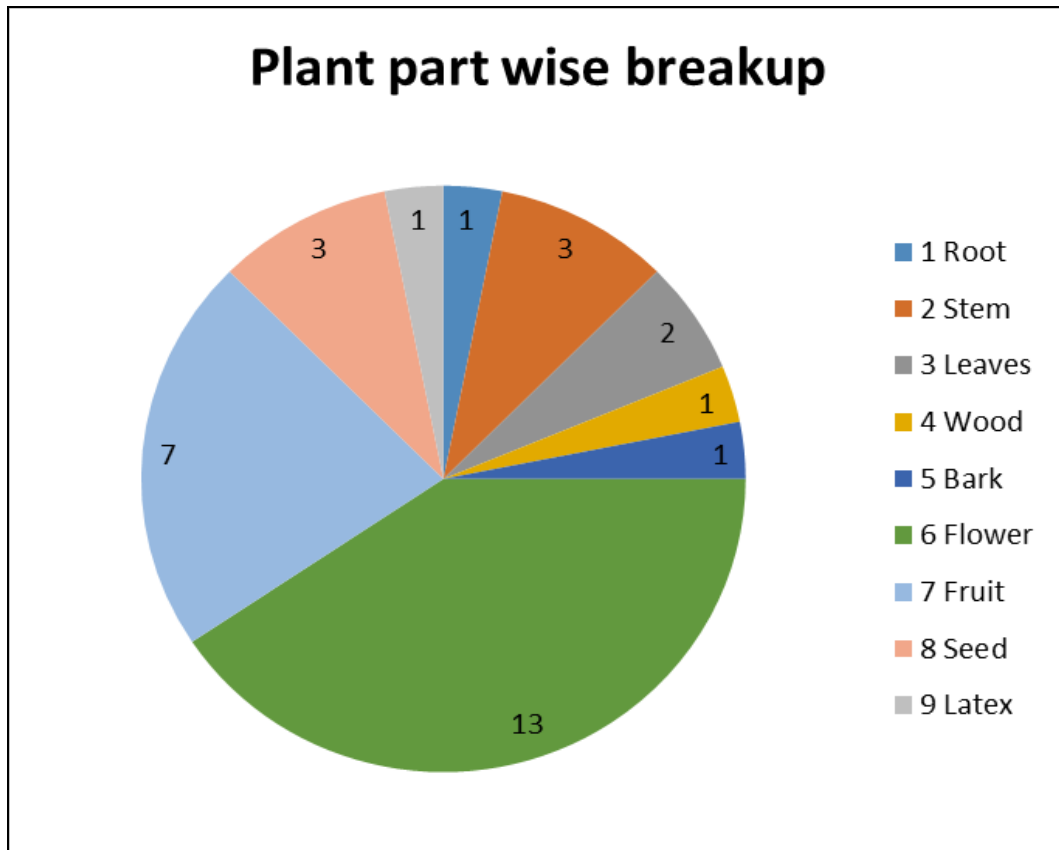


Fig 3: Graph showing plant part wise break up of plants

Result and Discussion

Total 26 plant species belonging to 18 families discussed in this article.

Out of 26 plants 7 herbs, 9 shrubs, 3 climbers and 7 trees are documented which are used by the tribals of the region for festivals, ceremonies and cultural practices. Flowers and fruits are mostly used for colour extraction purposes. The use of Leaves, Latex, Bark, Fruit, and Seed etc. also documented. The Holi, Ranghpanchami, Nagpanchami, Diwali, Dussera are celebrated mostly with colours. The Holi and Rangpanchami are chief festivals which are celebrated with colours.

Number of plants with their parts is used to make colours. The colours are safe to skin and chief in cost for making. Few are boiled in water, few are extracted. The work may helpful for the local tribals of the region to develop self-employment and financial assistance by extracting different dyes from the said plants.

It also provides awareness to the society to use natural colours instead of chemicals.

Photoplates of Natural Dyes prepared from plant parts



Fig 4: Preparation of colour from *Butea monosperma* Colour made from flowers of *Butea monosperma*



Fig 5: Preparation of colour from *Syzium communi* Colour made from flowers of *Morus alba*



Fig 6: A lady painting wall with plant dye. Wall painted with latex & colour at the time of Nagpanchami



Fig 7: Wall painted with latex & colour at the time of Nagpanchami

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