

*Research Paper*



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**To Study of The Effect of Types of Mordantes and Moredatig Methods on Persentsage Absorption of Alkalies Sodium Hydroxide and Ammonium Hydroxide, With Natural Dye Yellow Olender Flower**



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The study of textile, had such an important bearing on our daily lives that everyone needs to know something about them from earliest times people have used textiles of various type for covering themselves and for warmth, personal adornment, and even to display personal wealth. Complete knowledge of textile will facilities an intelligent appraisal of standard and brands of merchandise-studying textile material India the interesting sequence of “fiber to yarn to fabric; will help understand the construction and ultimate qualities of the fabric with witch one become familiar. There are different type of fibers witch are either spun [or twisted] India to yarn or else directly compressed India to fabric acquire finished material ready for consumers there are many types of finishing processes, out of witch dyeing and printings are most prominent.

The appeal of color is universal it repeatedly serves as a common language. Mainly there are two types of dyes natural dye and synthetic dye. Synthetic dye is toxic and environment UN friendly. Many drawbacks of synthetic dye have inspired environmentalists to look for eco-friendly product. Therefore, natural dye was now give more important. Many researches being undertaken for extraction of dyes from different natural coloring sources. Researcher conducted an experimental study of yellow oleander flower to prepare Alkalies based Mordanting dye for

dyeing plain weave linen celluloses fabric.

**MATERIALS AND METHODS**

**1.COLLECTION AND PREPARATION**

**OF MATERIAL:** - Opium leaves were collected from Haripura village (Banasthali Raj.); Plain weave linen fabric was selected for the experiment, because of its even dye uptake. Among the three methods of dye extraction – Boiling method was best for extraction of yellow oleander flower dye. The Chemical Modern used for fixing color on plain weave linen fabric with Sodium hydroxide and ammonium hydroxide.

**2.OPTIMUM CONCENTRATION OF MORDENTS AND ALKALIES:**

-In order to find out the optimum concentration of mordents. Fresh samples were dyed with the concentration of mordant with the dye and were dried in shadow. The concentration of mordant taken were as follow; for potassium dicromate-5,10,15,20,25gm.for stannous choloride-4, 8,12,16,20gm.for ammonium hydroxide and sodium hydroxide concentration-1:10,1:20, 1:30,1:40ml,in1: 1 ratio per 1gm.of plain weave linen fabric.

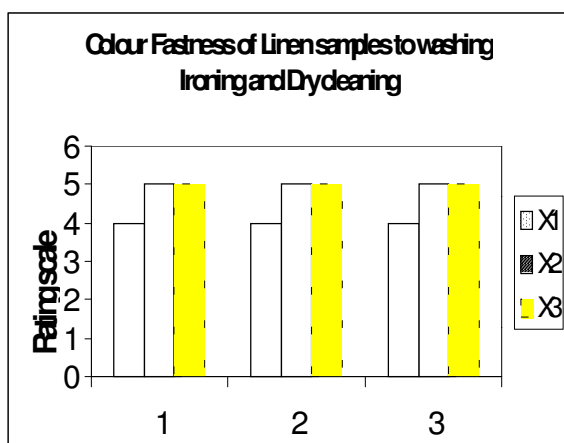
**CONCLUSION**

It was found from the experimental study that, Boiling method was best from dye extraction from yellow oleander flower dye for dyeing of silk fabric. It were also observed that simultaneous mordanting method gave best results, and post-

**TABLE 1 VARIOUS VARIABLE OPTIMUM DYE PROPORTION FOR DYEING OF LINEN SAMPLES WITH YELLOW OLEANDER FLOWERS**

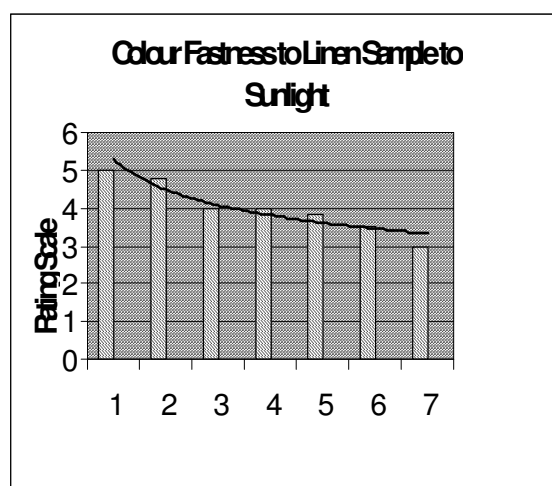
S. No.	Dyeing Variables	Trial Proportion	Selected Proportion
1.	Extraction Method	Boiling, Acidic alkalis	Boiling Method
2-	Dye cons.	6,8,10,12,14 gm	12 gm
3-	Dye Extraction Time	30,60,90,120,150 min.	900 min.
4.	Dying time	15,30,45,60,75 min.	45 min.

S.No .	Mordanting Variables / Alkalies	Trial Proportion	Final Selected proposition
1.	Mordanting time	30,60,90,120,150min	30. Min
2.	Potassium Dichromate	5,10,15,20,25gm	20 gm.
3.	Stannous Chloride	4,8,12,16,20gm.	12 gm.
4-	Ammonium, sodium hydroxide	1:10, 1:20, 1:30, 1:40	1:30



(Potassium Dichromate- mustard pink, Row Umber,)

(Stannous- yellow, muddy green)



(Day of exposure, all samples)

mordanting method was second best.

The yellow oleander flower dye extract gave best results with optimum Concentration of 12 gm. of yellow oleander flower dye in 100 ml. of water per 100gm of plain weave linen sample. It was founde that the extraction of dye was maximum with 90 minutes boiling time. It was also observe that sample dyed for 45 minutes gave best result. It was observe, that 30 minutes of mordanting gave best results. The yellow oleander flower dye extract gave best color on 100 gm. of each linen sample by using 20 gm of potassium dichromate, 12 gm of stannous chloride respectively, 1:30ml. of sodium hydroxide and ammonium hydroxide concentration were selected respectively. The Color obtained was shades of Cream, Yellow, Muddy Green, Raw umber, Mustard Pink with all the four types of mordents Respectively. The results of colorfastness test indicated that colorfastness to washing for all color was fair to good, the colorfastness to Ironing and dry-cleaning for all color was good to excellent.

### **COLOUR FASTNESS OF LINEN SAMPLES TO WASHING IRONING AND DRY-CLEANING.**

When the samples were subject to sunlight test in morning 10am to 5pm, the results proved that all Colures had good fastness. The cost estimation calculates for dyeing per 100 gm. linen fabric. Dyeing in yellow, muddy green, was less expensive then mustard pink and Row umber color due to the cost of Potassium dicromate .

Thus From the above findings, It Can be concluded that dyes extracted from yellow oleander flower dye have a range of bright, soft, even and lustrous Colures on the range of Colures of natural dyes used to dye silk ,linen fiber, yarn, fabric for weaving of Apparel and furnishing material dye can be used by dyers, and craft men. To increase the color range to add verity to the products. This important advantage of this dyes is, it applicability to small scale and cottage industries for this the high technology and machinery is not necessary and easy adaptability at the procedure is possible.

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## **R E F E R E N C E**

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- 2- Ed.M.L.Gulrajani ,Silk dyeing ,printing and finishing page no.77-89.
- 3- Mohanty et.al., Give a good idea of the vast rang of possible variation in dyeing techniques in many part of India. page no.34-45.