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# Extracting Biodye from Rivivna Humilis Berries

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**ABSTRACT**

*The panoramic beauty nature is copioused by the flowers. The flowers are now being used as a dyeing agent. The trend of biodyeing has an age old history. There is unique flora and fauna in India. Nature provides immense number of flora and has unique advantages from it. One among the significant aspect of flora is production of biodye. The major objective of the study is Rivivna humilis berries extract is taken and used as dyeing agent to dye different fabrics.*

***Keywords: - Biodye, Dye, Fabrics, Flora.***

## INTRODUCTION

Dyeing is an ancient art which predates written records. It was practiced during the Bronze age in Europe. Primitive dyeing techniques included sticking plants to fabric or rubbing crushed pigments into cloth. The methods became more sophisticated with time and techniques using natural dyes from crushed fruits, berries and other plants, which were boiled into the fabric and gave light and water fastness (resistance), were developed (Sreeremya.S,2016). Biodye is an exciting field of research whereby natural flora's can be used for extraction of dyes (Chandramouli.K.V.et.al. 1995). Recently, interest in the avail of natural dyes has been growing rapidly due to the result of stringent environmental standards imposed by many countries in response to toxic and allergic reactions associated with synthetic dyes(Dayal.R.et.al., 2001). This perennial herb is a member of Phytolaccaceae (Pokeweed Family). Un-like the six feet tall Pokeweeds, this plant is only about one to three feet. The leaves are wavy and the flower/fruit spike makes up the top 3+ inches of the plant. The translucent red berries appear at the bottom of the flower spike while it is still blooming (Syam et.al. 2011). Betalain pigments in ripened berries of *Rivina humilis* (pigeon berry, red variety) were quantified. Ten betalain pigments were identified based on their absorbance and mass spectral characteristics. All the pigments had been earlier reported from various sources including *R. humilis* berry varieties (Shivkanya Jaju.et.al., 2009).

## MATERIALS AND METHODS

### SAMPLE COLLECTION

*Rivina humilis* berries were collected weighed to 10gm

 

**BIODYE EXTRACTION**

The petals of flowers were weighed and boiled by adding 100ml distilled water and boiled for 10mints until there is a color change for distilled water.The boiled flower extract was filtered through whatmann no:1 filter paper and the fabrics used were silk ,wool and cotton fabric. The mordant used was 2% NaOH and acetic acid.

**RESULT**

Thus the clothes were dipped in mordant (NaOH and acetic acid),the clothes were retained with small percentage of moisture, then Rivina humilis extract were dipped in mordant and the fabric was soaked in mordant for 15mints and then the clothes were dried.Thus the fabrics treated with acetic acid produced pale pink color in cotton and wool,and off white color when treated with NaOH. (Fig 1 to 4) .




**Fig:1** **Fig:2** **Fig:3** **Fig:4**

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