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*04/25/2021*

*Homemade Natural Dyes*



There is a certain beauty to natural dyes that you just can't get with regular fabric dyes. Although the results aren't quite as color-fast as store-bought dyes, they are gorgeous in their own way. The process is simple, and once you know how to do it, you can try using natural products, such as beets for pink, red cabbage for purple, turmeric for golden yellow, black beans for blue, avocado skins for peach, yellow onion skins for orange, spinach for green. Natural dyes are better than synthetic dyes because natural dyes are safe and harmless. By using natural dyes from synthetic dyes, we help to preserve the environment and reduce human dependence on harmful products. However, natural dyes can be toxic because of the mordant used to apply them. Mordants are substances used to bond natural dyes to fabrics such as aluminum, copper, iron and chrome. Natural dyes can be used to dye cotton fabrics, wool, silk nylon and polyester fabrics. Natural dyes can be classified in different ways depending on the type of origin / source, color type, chemical composition and color components. Natural dyes can be used to dye cotton fabrics, wool, silk nylon and polyester fabrics. Natural dyes can be classified in different ways depending on the type of source, color type, chemical composition and color components.

In order to try to see how these natural dyes work on clothes I did a little experiment on it. I used a natural product such as beets and ground turmeric to make pink out of beets and yellow out of turmeric. Before I started the experiment I did a little research about beets and ground turmeric.

### **Beets:**

Beets originate from the shores of the Mediterranean and are believed to have been grown primarily for their edible leaves. The Greeks, like the Romans, grew beets for their leaves, but consumed them as food and called them teulon or tuition because the leaves resembled squid tentacles. In 1542, the root part of the beet was grown for consumption in Germany or Italy, and

beet's juice has been used as a red dye since the 16th century. Victorians dyed their hair with beet juice in 19th century England. Therefore beets weren't an expensive source for people to use it to dye their hair. Beets are the best natural products to make pink and red dyes.

**Turmeric:**

Turmeric is a plant that has a very long history in medicine and has been around for almost 4,000 years. In Southeast Asia, turmeric is used not only as a main spice, but also as an integral part of religious ceremonies. Today, turmeric is common in the tropics and goes by different names in different cultures and countries. Turmeric is also known as "Indian saffron" because of its bright yellow color. It is a tall plant that grows in Asia and Central America. The turmeric we see on shelves and in spice cabinets consists of the underground roots of the plant. The bright yellow color of processed turmeric has inspired the use of it as a dye in many cultures. Turmeric is a little bit of expensive it costs about 3-5\$ per pound closely related to the ginger family, **turmeric** is a spice that's mostly used for its color rather than the way it tastes

*Process:*

The products I used to make the dyes was:

<b>Beets = Pink Dye</b>	<b>Turmeric = yellow dye</b>
1 Beets	Turmeric
3 Cups of water	3 cups of water
1 teaspoon of vinegar	1 teaspoon of vinegar
Knife	1 teaspoon of soda
Cutting board	Spoon
pot	pot
Rubber band	Rubber band

(Image #1)



This image#1 shows the first thing I did.

- ❖ First thing I did was peel 1 beets, cut them into large chunks about 5cm, because they would release enough dye.

(Image#2)

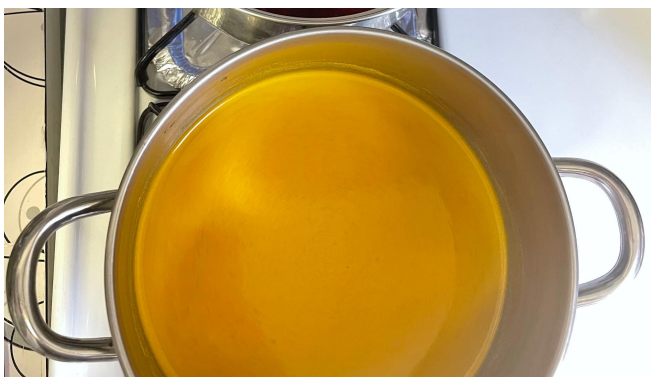
The next thing I did was,

- ❖ Place the beets into a pot, then fill the pot with 3 cups of water. (As it's shown in the Image#2). I then boiled the water for about 15 minutes.
- ❖ Added 1 to 4 ratio of vinegar to boiling water.



Turmeric process

Image#3:



I took the turmeric.



- ❖ Bring the medium pot of water simmering heat.
- ❖ Then added 3/4 cup of turmeric to the pot and simmer for 20-30 minutes.
- ❖ Add 1 teaspoon of soda and vinegar
- ❖ Remove the pot from the heat and let it cool down.

Image#4



After both of my dyes were done, I used two mini squeeze bottles(one for each dye) and filled it in with the dyes. I wanted to create a pattern on my t-shirt with two different dyes that I made, therefore I took the white plain T-shirt and pinched the middle of the shirt, twisted until the shirt made a spiral and used two rubber bands to segment the shirt into 4 sections. (As it's shown on in the image#4)Then I squeezed each of my bottles onto the section one by one. I

repeated the process until the dye got all over the shirt including the back. I then put it in a zip top bag for 30 minutes and rinsed excess dye off the shirt and then hung it to dry it.

Image#5



Looking at the image #5, the results of my experiment didn't really turn out the way I was expecting because I was expecting the pink color to be brighter than it is. I think what caused it to be like the way it is because I didn't just dip my T-shirt into the pot and boil it in the dye because I thought it would be difficult to get the pattern that I wanted, but then I realized that it would be better to boil the fabric in the dye for at least half and hour to get a better result. This was one of the things I did differently than the tutorial video that I

watched.

Resources:

Avey, T. (2014, October 08). Discover the history of beets. Retrieved April 26, 2021, from <https://www.pbs.org/food/the-history-kitchen/history-beets/>

Prasad, S. (1970, January 01). Turmeric, the golden spice. Retrieved April 26, 2021, from <https://www.ncbi.nlm.nih.gov/books/NBK92752/#:~:text=The%20use%20of%20turmeric%20dates,Jamaica%20in%20the%20eighteenth%20century.>

WikiHow. (2020, August 09). How to dye fabric with beets. Retrieved April 26, 2021, from <https://www.wikihow.com/Dye-Fabric-with-Beets>

<https://youtu.be/rYkGGF-wSTw>