

YUYO'S GUIDE TO NATURAL DYEING

Step 1 – Scouring

Before you can dye your fiber, you'll want to wash the dirt and oil out of it, so that it will be able to take in as much dye as possible, and as evenly as possible. This washing process is called scouring.

SCOURING CELLULOSE FIBERS (i.e. cotton, linen, hemp, etc.)

1. Fill a large **non-reactive pot** with enough water to comfortably fit your fiber, with some room for it to move around. The less crowded your fibers, the less risk of an uneven dye.
2. For every pound of fiber, add 2 teaspoons of Synthrapol soap, and 4 teaspoons of soda ash. Stir well to dissolve the ingredients. Add your wetted fibers.
3. Bring pot to a simmer, and hold for 1 hour.
4. Allow fiber to cool, and rinse in warm water.

SCOURING PROTEIN FIBERS (i.e. wool, silk, hair, etc.)

1. Fill a large pot with enough water to comfortably fit your fiber, with some room for it to move around. The less crowded your fibers, the less risk of an uneven dye.
2. For every pound of fiber, add 1 teaspoon of Orvus Paste Soap. Stir to dissolve. Add your wetted fibers.
3. Bring pot carefully to 60 degrees Celsius, and hold for 1 hour. Protein fibers are more sensitive to drastic temperatures.
4. Allow fiber to cool slowly, and rinse in warm water. Try not to shock the fiber.

Step 2 – Mordanting

Now that your fiber is sufficiently cleaned, you can begin mordanting. Mordants are used in natural dyeing to boost the longevity and brightness of your colour. They help prevent fading from both light and water. As well, depending on the mordant you choose, it can shift the colour of the dye. Some mordants can be used before or after the dyeing process.

Type of mordants

Alum

Potassium Aluminum Sulfate is a clear mordant that boosts light and wash fastness, and dye brightness, but does not add any of its own colouring to your dye. It is the most commonly used mordant by dyers, and can be used on both cellulose and protein fibers. Use at 15% WOF.

Tannins

Tannins can also be used as mordants, as well as dyes. In fact, a lot of natural materials already have certain amounts of tannins in them. For example, pomegranate rinds are high in tannin, and make a great light and wash fast dye on their own, but you can also layer and mix them with other dyes. Tannins, much like alum, will boost the longevity of your dye. Here is a list of some tannins you can use and experiment with:

Clear Tannins: Gallnut, Tara, and some Sumacs

Yellow Tannins: Myrobalan, Fustic, Black Oak, and Pomegranate.

Red Tannins: Cutch, Mimosa, Quebracho, Tea Leaves, Avocado Pits, and some Sumacs.

Iron

Ferrous sulfate makes for a great mordant and colour shifter. You can use it before or after the dyeing process. Iron will "sadden" any colour you add it to. It will darken it, and sometimes change the colour completely, depending on the dye. It's a fun colour shifter to work with! For example, yellow from onion skins can be shifted to olive green, or pink from avocado pits can be shifted to soft purple. Iron can be used on both cellulose and proteins, but use caution with proteins, as iron can eat away at the fiber and make it rough and brittle. Use at 2-4% WOF.

Instructions for Mordanting

1. Use mordant of choice at suggested range of percentage WOF.
2. Fill a non-reactive pot with enough water to comfortably fit your fibers. The less crowded the fibers are, the less risk of an uneven dye.
3. Add mordant to pot, and stir well to dissolve. Add wetted fibers.
4. Bring to simmer and hold for 1-2 hours. Be careful with high temperatures on protein fibers.
5. Cool and rinse. Be careful not to shock protein fibers.

Note: Fibers can also be "steeped" for a number of hours in mordants, to take full advantage of the properties the mordant imparts on the fiber.

Step 3 – Dyeing

Dyeing is best done low and slow – by steeping the fibers in the dye pot for long periods of time with steady low temperatures. If you're using dyestuffs, or large chunks of dyestuff – for example, whole pomegranate rinds or pieces of madder root – it is best to extract the colour out of the dyestuff first, and then strain the dye from the dyestuff.

Here are some general instructions for dyeing your fiber:

1. Fill a pot with enough water to cover your fibers and allow them room to move around. The more room, the more even the dye.
2. If using a powdered dye, add the dye at the suggested percentage, and stir well to dissolve completely. If using dyestuffs, follow suggestion above.
3. Add your wetted fibers.
4. Bring to a simmer or just below a simmer, and hold for 1-2 hours (or allow to steep for multiple hours after).
5. Allow to cool, and rinse until water runs clear or semi-clear. Dry out of sunlight.

Note: Natural dyes can benefit from being allowed to rest for a period of time after being dyed. This can help their colourfastness. If you have the time to leave your fibers, store them out of sunlight for one or two weeks. Then rinse them again in a Ph neutral soap.

GLOSSARY

- **Weight of Fiber (WOF)** is used to calculate and determine how much dyestuff, mordant, or additive you need. It is always measured as a percentage. For example, if you have 400g of fiber, and madder is dyed at 50% WOF, you'll need 200g of madder dye. (Always measure your fiber while it's dry. This will give you the true WOF and your calculations will be accurate).
- **Wetting out** your fibers before adding them to the dye pot can help with a more even dye. Simply place your fibers to be dyed in a bowl of water, and wait until they are fully wet before adding to the pot. You can speed the process up by gently massaging the fiber underwater.
- **Colourfastness** refers to how resistant your dye is to fading. Lightfastness refers to fading caused by sunlight, while washfastness refers to fading caused by water and washing. Mordants and tannins help increase your colourfastness tremendously, so that your dye will stay bright and beautiful for a long time.
- **Protein Fibers** are fibers that come from an animal, i.e. wools, silks, hairs, furs, etc.
- **Cellulose Fibers** are fibers that come from plants, i.e. cotton, linen, hemp, paper, jute, etc.