



Dyeing Naturally

Food waste from our kitchens can be transformed into beautiful natural dyes, as Lola Lely explains



Beautiful natural dyes can be created from food waste products that would usually end up in our kitchen waste or compost.
Lola Lely is an artist and designer from Hanoi, Vietnam, now living in London, who links contemporary craft practices and technology with age-old techniques. She loves producing natural dyes for furniture, textiles and sculptures and shows *Flora* readers how to do it in three simple steps:

1 Choose your fabric

Protein fibres such as wool and silk are suitable for dyeing in this way, together with cellulose fibres including cotton, linen and ramie, but these will need a stronger dye bath because cellulose fibres are harder to penetrate.

2 Scour and mordant the cloth

Before dyeing, you must treat the cloth to make it colourfast – a process known as scouring and mordanting.

To scour, wash the cloth with a tablespoon of cream of tartar and a teaspoon of vinegar in a pot with plenty of water. Boil for one hour until the cloth is clean.

To mordant the cloth, simmer in water with any of the natural products listed in the Mordant Ratios box (below). Leave the cloth to sit and cool in the mordant bath overnight or for at least four hours.



Suitable food waste products

- **Avocado pits and skins**
– dusky pinks
- **Beetroot** – bluish-purples
- **Black bean stock liquid**
– preserve to produce dark purple to navy shades
(add rusty iron nails to the dye bath to darken the colour)
- **Brown/red onion skins**
– golden browns, ochres and warm orange
- **Chamomile tea** – place used tea in a jar filled with water for strong bright yellows
- **Juniper berries**
– purples to maroons
- **Mushroom heads or stalks**
– greys, yellows, browns and pinks
- **Persimmon**
– ferment over-ripe persimmon fruit in a jar for red browns
- **Pomegranate skin**
– light/dark golden tones
- **Saffron liquid**
– warm pale to rich oranges
- **Turmeric roots**
– clear orange tones
- **Vinegar** – brightens colour of natural dyes
- **Walnut husks**
– chocolate browns

3 Make your own dye

1. Gather your food waste material – a good quantity is required to make strong colours.
2. Skins, pits and roots can be frozen in plastic bags in the freezer. To make more concentrated dyes, let the materials dry in the sun or in a very low oven first. Once cool, store in air-tight containers or zip-lock plastic bags.
3. When ready to dye, soak the material in a large container with plenty of freshly boiled water for about 24 hours.
4. Make a sieve by placing muslin over a bucket or large pot secured with pegs around the rim. Carefully pour the dye stock into the bucket/pot.
5. Gather the corner of the muslin containing the food material and tie with a piece of string to make a large ‘tea bag’. Make sure the food material can move freely around inside to release its dye colour fully.
6. Put the dye bag in a dye pot that is big enough to accommodate your cloth. Tie one end of the string to the bucket or pot handle and make sure the dye bag can float freely in the water.
7. Bring the dye bath to a simmer on the stove, but do not boil or the colour will darken or simply evaporate. Now add your cloth to be dyed **and what happens next e.g. simmer for how long, then what do you do with the cloth???**

MORDANT RATIOS

Unless stated, each of the following can be saved to mordant a second batch of cloth:

- Persimmon – 300g per 1kg of cloth
- Pomegranate skin – 100g per 1kg of cloth
- Rhubarb Leaves – 300g per 1kg of cloth
- Salt – 2 tablespoons per 500g of fibre or cloth (one batch only)
- Walnut husks – 100g per 1kg of cloth