

# DYEING WITH OAK GALLS



by

*BERBO*

# ALL ABOUT OAK GALLS

Oak trees are keystone species in nearly all ecosystems they inhabit, supporting an abundance of animal and plant life with their generous food, shelter, and other resources.

Oak galls are growths that form when a certain kind of insect, called a gall-inducing insect, lays their eggs in the tree's living tissue – usually in a new leaf bud.

Galls perform multiple functions. For the insect, they protect developing larva and provide them with a food source; for the oak, they help contain insect populations that may otherwise overwhelm the tree.

Tannin-rich oak galls combined with iron make a strong **gray-to-black dye**, sometimes tending toward shades of **blue, green, or purple**.

Black ink made from oak galls and iron has been used for thousands of years in many parts of the world. Documents and art were written and drawn with iron gall ink from the Ancient Roman era until the 20th century, when synthetic black ink became widely available.

In California, fallen oak galls can be found year-round. Look for tiny holes where the gall-inducing insects have tunneled their way out. Collect them over time, then make dye using the following instructions!

# HOW TO MAKE DYE

1. Once you've collected lots of galls (at least 20% of the weight of your fiber), gently boil them in water in a pot reserved only for natural dyeing\* for 1-2 hours to release their tannin-rich dye.

**Optional:** Use a muddler or masher\* to smash the softened galls into a pulpy consistency in your dye pot. (More dye will be released as more surface area is exposed.) Gently boil the mashed galls for an additional hour or so to release all their dye.

2. Strain out the galls/pulp. This liquid is your dye. **Note:** The dye won't be too strong in color – the color is drawn out when your fabric is treated with iron.

3. Submerge your fabric in hot (180°) dye, stirring often for even color. Leave fabric in the dye for as little as five minutes and up to overnight. Each gall has a different amount of tannin (dye), so the strength of each batch will vary. It's all an experiment!

4. Once out of the dye pot\*, let your fabric cool to room temperature, then rinse. Proceed to the iron post-treating step to draw out the dark, dramatic color!

**\*Always use pots and utensils reserved only for natural dyeing.**

# POST-TREATING YOUR FABRIC

The last step to working with oak gall dye is post-treating your fabric with **iron**. This step darkens the tannins and shifts the dye color from a pale yellow or tan to dramatic gray.

Iron in powder form is available from dye suppliers like [botanicalcolors.com](http://botanicalcolors.com). Iron can also be “harvested” from rusty found objects (wear gloves when collecting!) soaked in a mason jar\* in a 10:1 mixture of water and white vinegar. Leave the covered mixture in a cabinet or shaded area from a week to a couple months. It’s ready to be strained and used when the liquid turns a bright burnt orange color.

## IRON POST-TREATING RECIPE:

- Wear gloves (and a mask, if working with powdered iron).
- Measure iron powder at approx. 1-3% of the weight of your fiber, and dissolve in a bucket (reserved **only** for natural dyes) of room temperature tap water.
- Soak your dyed fabric in the iron solution for approx. 30 seconds, stirring to ensure even uptake. The color shift should be immediately noticeable.
- Rinse your fabric, then wash in cold water with gentle detergent. The color is now set and permanent!

For more detailed instructions, visit [berbostudio.com/resources](http://berbostudio.com/resources).

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