

THE MORDANT RIFF

There are two kinds of natural dyes.

SUBSTANTIVE dyes (lichens and walnut hulls, for instance) need no mordants to help them adhere to the fiber.

ADJECTIVE dyes do. The mordant joins with the fiber and the dye to set the color permanently. It enters deeply into the fiber, and when the dye is added, they combine to form a color; since the mordant is thoroughly imbedded, so is the color. This is the principle behind the process. Adjective dye-stuffs are not able to penetrate the wool enough to keep from washing or fading away—unless a mordant is used.

CAUTIONS

Keep mordants out of reach of kids, animals and weird adults. Mordants are not all poisonous, but why risk trouble? Store them safely away when they aren't in use. Don't breathe in the fumes while you are mordanting. NEVER use the same pots for cooking and dyeing.



GENERAL RULES FOR MORDANTING

All recipes here are for one pound of wool.

Wool is the easiest to dye; cotton and linen are possible too, but the process will be more complicated and the results may be less pleasing and/or permanent. Halve or double mordant amounts to prepare half or twice as much wool.

Use a non-reactive pot—enamel (unchipped) or stainless steel. Brass, copper or iron pots will do their own mordanting, providing special effects you may not care for.

Wool is more easily dyed as fleece or as yarn wound in skeins. In either form it must be clean (commercial yarn usually already is); dirt will repel the mordant and later on the dye. Tie skeins (tight knot, loose loop) in four places to prevent tangles. If the loop is too snug, you will have tie-dyed yarn. It is possible to dye wool as fabric, but hard to do it evenly.

Soak wool for several hours, to ensure even take-up. NEVER put dry fiber into a mordant- or dye-pot unless you want streaks.

Fill a large enough pot with enough water to not crowd the fiber. Add the mordant and dissolve completely, stirring with a clean stick or glass rod. Bring the bath to room temperature and add the wet wool.

Bring to a simmer and hold there for an hour. DO NOT BOIL. Stir occasionally VERY SLOWLY & GENTLY. (HEAT and AGITATION cause FELTING.)

Remove pot from heat and let cool—preferably over night. Remove wool from pot. It is ready to be dyed or it may be stored wet or dry, for later dyeing. Some people think mordanted wool will take dye better after it has sat for a while. Wet wool has been stored successfully for up to six weeks. Ventilate it and turn it to prevent mold. If you store your mordanted wool dry, be sure to soak it well before dyeing.

*Please see our "Natural Dyeing" Riff
for more information.*

THE MORDANTS

ALUM (potassium aluminum sulfate) is the most common mordant. If you are not sure what you want to do, mordant with alum, and use the others as additives. Alum does not effect color. It is usually used with cream of tartar, which helps evenness and *brightens slightly*. Three ounces of alum and one of cream of tartar is a good start; if you have heavy wool, use four ounces of alum. Too much alum makes wool sticky. Alum mordanted wool stores well, wet or dry.

IRON (ferrous sulfate) is called copperas. It will *sadden* or *darken* colors, bringing out green shades. Usually wool is dyed BEFORE mordanting with iron. Simmer dye-bath for 1/2 hour, remove wool, and add 1/2 ounce of iron and one ounce of cream of tartar to pot. Dissolve thoroughly then re-enter wool. Simmer 1/2 hour more. Rinse well (remember to cool slowly see above); too much iron will harden wool and make it streak.

TIN (stannous chloride) *blooms* or *brightens* colors, especially reds, oranges and yellows. Almost always used with cream of tartar—1/2 ounce tin and 1-2 ounces of cream of tartar for a pound of wool. Simmer for an hour and rinse in soapy water before dyeing. Tin is a good additive mordant. Store wool wet or dry. Too much tin makes wool brittle. It is caustic, be sure to handle carefully and clean up thoroughly.

BLUE VITRIOL (copper sulfate) *saddens* colors and brings out greens. It is a good additive. Used alone, one ounce will mordant a pound of wool. Rinse fiber well, store wet or dry. Blue vitriol is poisonous.

TANNIC ACID is a good mordant if you want tans or browns, or for cotton or linen (vegetable fibers). One ounce per pound of wool, simmer for an hour. Wool mordanted with tannic acid before dyeing tends to darken with age.

GLAUBER'S SALTS are a leveling agent, not a mordant. Add 1/2 cup to your dye-bath to prevent streaking. Color will change slightly. Wool dyed to slightly different shades with the same dyestuff can be brought to a more even color with Glauber's salts. Add one cup of Glauber's salts to your dye-bath, dissolve, add soaked wool and simmer for 1/2 to one hour, until the different shades have blended into uniformity. The final color will be a little duller.

USING MORDANTS AS ADDITIVES

Use wool pre-mordanted with alum.

Prepare your dye-bath and divide into several pots. Put a skein of the alum-mordanted wool in one pot, and bring to a simmer. Add one of the other mordants to each of your other pots, a pinch at a time, until you see a color change. Dissolve completely and enter wool. Simmer as before. Remember that too much of any of them can damage your wool. Tannic acid is not a great additive, but try it if you like.

NEVER PUT WOOL IN THE DYE-BATH BEFORE YOU ADD AND DISSOLVE THE CHEMICALS. This protects your wool from exposure to high concentrations of harsh chemicals, and encourages complete dissolving and even dyeing.

One dye-bath will yield several related colors with this method. As always, keep careful records if you might want to duplicate your results.

Often a small amount of ammonia added to the rinse water will effect a dramatic color change. Be sure to rinse completely to prevent later running of color.

Test for color fastness before using yarn. Complete fading is unusual with mordanted wool, but it does happen with berry- and sometimes flower-dyeing.

