

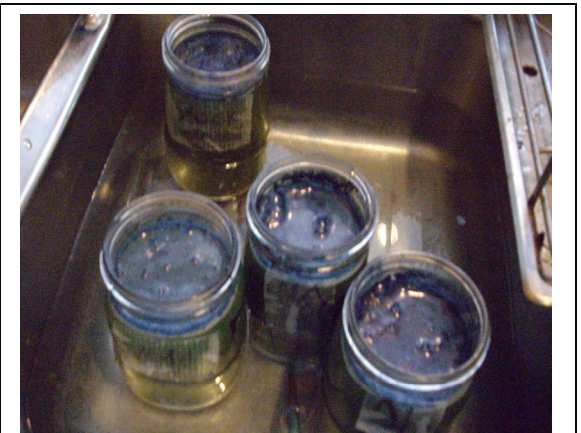
How to Dye With Woad Indigo

Equipment that is needed:

- Rubber gloves
- A dust mask
- Safety goggles
- A wooden stick for stirring
- Measuring spoons
- A 1 quart wide mouth glass jar for mixing the stock solution
- A large dye vat, a three gallon bucket with lid is sufficient.
- Soda ash (sodium carbonate) to change the pH
- Thiourea dioxide, the reducing agent
- Water, distilled if you are on chlorinated water
- Mortar and pestle, to grind the woad-indigo if you extracted your own

Instructions:

- ❖ Prepare the stock solution: Fill a wide mouth canning jar $\frac{3}{4}$ full of hot tap water. Change the pH to ten with sodium carbonate. Add to the jar two to four teaspoons of finely ground natural woad indigo pigment. If you do not have that much you can use whatever you have. The amount of woad - indigo you add determines the amount of material you can dye and the depth of shade. Make sure that the woad - indigo is fully saturated before adding the reducing agent.
- ❖ Add a teaspoon of Thiourea dioxide to the stock solution. The solution should turn a coppery green with bluish-purplish foam, within 2 or 3 minutes if it does not, add another teaspoon of the Thiourea dioxide and wait another 2 or 3 minutes. You should only need two teaspoon of Thiourea dioxide to reduce your stock solution at most. If the solution is still not reduced check the temperature of the stock solution and make sure it is not to low.



Reduced Indigo stock solutions

- ❖ Let the stock solution reduce for half an hour
- ❖ Fill a large pot about $\frac{3}{4}$ full with warm water. Change the pH of the vat to ten with sodium carbonate. Do not let the temperature of the vat get above 120 degrees F, if the temperature is below 100 F the reduction may not be complete.

When dyeing directly with the extraction vat from fresh leaves begin here and omit adding the stock solution

- ❖ Add a teaspoon of Thiourea dioxide to reduce the vat, let reduce for one hour.
- ❖ Add the stock solution to the larger vat, being vary careful not to add any oxygen to the vat.
- ❖ Let the vat reduce for a further half hour. While the solution is reducing you can prepare your articles for dyeing.

How to use the prepared vat

- ❖ Make sure that the articles are very wet and clean. Submerge the articles in the vat for 10 minutes, and then remove
- ❖ Oxidize the articles for 10 minutes
- ❖ Redip the articles in the vat for a further 10 min.
- ❖ Continue alternating the revatting and oxidizing until you have achieved the desired shade or you have used up all your indigo.
- ❖ Leave the articles to oxidize overnight and then rinse the articles in water to which 1 tbsp of vinegar has been added to neutralize the alkaline pH of the vat. This will shift the colour to blue, if it seems greenish.

