

## Fermented Indigo Vat: Blog Post #10:

### Vat Maintenance - Long Term

© Catharine Ellis, as posted to the blog: Natural Dye: Experiments and Results

Set up a small notebook/logbook for each vat that you make. Record the ingredients included, their amounts, procedure, and dates. Use this book to retain samples of your initial testing to determine when the vat reduces. Record any additions that you might make over time. Over time, this book is the “story” of your vat and will be a very valuable tool. I have books that I have maintained for months or even years.



These simple notebooks are invaluable in helping me to care for my vat and predict the dye colors I can achieve.

- Stir the vat daily, (see note below\*)
- Measure and record the temperature and pH on a regular basis. Add this information to your log/notebook
- Record the results of dye tests regularly: once a week or so. Add this information and the samples to your log/notebook

- Once a week, add a small amount of lime (calcium hydroxide) to the vat: 0.1 g/liter (that's 1/10th of a gram/per liter). Document this in your vat log/notebook.
- Once a month, add a small amount of dry wheat bran that has been freshly cooked wheat bran to the vat. 0.5 gram dry bran per liter. Document.
- Use a paper calendar, or any other method you find useful to keep track of regular additions of lime and bran.
- If the dyed color suddenly becomes very pale, check the pH. If the pH is within range (9.5-11), the vat may need additional organic material to boost fermentation. Cook a small amount of bran (about 1-2 grams/liter) and add it to the vat. Stir, wait until the next day, and then dye another test.
- If possible or practical, keep a running record of the quantity of textiles that are dyed in the vat, either by weigh, yardage, etc. This will give you a sense of how much indigo you are using/depleting over time if that is important to you. This may not be important to all dyers but a production dyer will benefit from this information.
- If the pH of the vat drops below 9.5 add additional lime (calcium hydroxide) to boost the alkalinity.
- Measure and record the temperature of the vat. NOTE: once the vat has reached full fermentation, it can be maintained without supplemental heat. Do prevent it from freezing, as that can destroy the bacteria in the vat.
- If the volume of solution in the vat decreases, (due to evaporation or dyeing) add warm water into which you have dissolved 25 grams of soda ash or potash per liter OR add wood ash lye. If you are continuing to make small test vats, then they can also be added to the vat to supplement the volume in the vat.

- At some point the indigo in the vat will be diminished. These older vats are valuable for obtaining pale blue colors. You can begin a new vat for darker colors.

\* You do not need to be a “slave” to your vat! I have gone away from home for as long as 3 weeks without tending the vats. On returning the vats were just fine, although they did need pH adjustment and an addition of cooked bran to revitalize them.



A sampling of pages from my dye log:  
It's always instructive to see how the vat becomes livelier after additions of bran.