TRANSCRIPT

Troubleshooting After the Dyeing Process

It's often disappointing to get unexpected or unpleasant results after you've spent so much time and effort during the dye process. In this session, we're gonna look at the dye issues that you might discover after you're finished dyeing, and what we can do to prevent them. Here are the issues that we are gonna look at. Lighter or darker colours than expected, unexpected colour, blotchy or uneven colour, red speckles, undyed spots, burnt or scorched spots, and felted wool.

If you miss just one decimal point in your calculations, you could end up with a colour that is 10 times lighter or 10 times darker than expected. Of course, if you get a lighter colour, you could always just add more dye to your pot to get the darker colour. Unfortunately, if you have a colour that is too dark, it's a bit more challenging to deal with. Too much dye in the pot can make it difficult to exhaust the dye bath, but also, too much dye in the yarn can actually change the feel of the yarn. It can make the yarn feel crispy, or brittle, even, and the fibre might lose a lot of its softness, and just be unpleasant to work with. Another thing to consider is that colours generally appear darker when they're wet. So you might be dyeing, and a colour looks great to you in the pot, but then once it's dry, it looks lighter than you expected. This can happen depending on the fibre that you're working with. Superwash wools tend to dye quite deeply, but silk yarns can actually dye up to two shades lighter when they dry.

As I mentioned before, we invest in a handful of pure dye powders rather than colours that have been premixed by the dye supplier. There's a reason for this. Dye suppliers often provide these mixed dye powders to make colours that fit with the current trend, or the fashion, and these mixes might contain two or more pure dye colours. The thing is, is that different dyes have different molecular weights and different compositions. They each have their own individual personalities, and some will strike or bind to the fibre more quickly than others. So it's possible that you have a mix of two colours, and that one of the colours will bind first, and the second colour will still be just hanging out in the dye bath and doesn't bind until later. This can all affect the appearance of the final yarn. It can produce unexpected colour results, which may or may not be something that you'd like. With some experimentation and practice, you could harness this dye splitting technique to produce some very unique results.

Blotchy or uneven colour is sometimes something you want in your hand dyeing, depending on the kind of hand dyed look you're going for. But if you were aiming for a nearly solid and level immersion dyed yarn, you'll need to check a couple points to prevent uneven colour.

First, make sure that you presoak your yarn really well, and that it's fully wet all the way through. It happens quite often that silk doesn't wet through very easily, and the result is that those dry spots don't bind the dyes as well as the rest of the yarn, and it produces light or blotchy spots. Second, be sure that your immersion dye pot has enough water for the yarn to move around. You need the dye to flow in and around your yarn in order to produce level results.

And finally, be sure to agitate or move the yarn around during the dye process, so that the yarn doesn't pool or sit in some areas of the yarn. Those three points should help you produce a more even and level dyed yarn.

The dreaded red speckles. This is also called freckling, and it looks like your yarn caught the measles. This sometimes happens because some dyes can be difficult to fully dissolve into dye stock, and as a result, those tiny undissolved dye particles end up landing on the yarn and creating very strong spots of red speckles. It's a challenging problem, because a lot of times, it's really, really difficult to tell if the dye powder is fully dissolved.

Some suggestions to prevent this issue include heating up the dye stock to encourage the powder to dissolve, letting the dye stock sit for longer to let the powder dissolve, and also maybe using a couple layers of nylon pantyhose to strain and filter out those undissolved particles. Personally, I find all those steps to be extra work that I don't really wanna do, so if I come across a dye powder that causes freckling on a regular basis, I just cut it out of my recipes and stop using it altogether.

Light or white undyed spots will happen on a dyed skein of yarn when there's something resisting the dye from penetrating into the skein. So this can often happen if the figure eight ties in the yarn are too tight. So be sure to tie your ties loosely enough so that there's space around them for the dye to move. And while you're dyeing, you might also consider sliding those ties around so that every part of the skein is exposed to the dye, and that will help prevent those white undyed spots in your yarns.

Scorched yarn is such a sad thing. It happens when the bottom of the stock pot gets very, very hot, and the dyes will strike and bind to the yarn very densely in that hot spot. The yarn comes out looking like it has dark burned spots, and sometimes the texture changes too, and those dark spots become very coarse or brittle. Personally, I find that scorched yarn looks terrible and is nearly impossible to salvage. You could try to overdye the yarn to harmonize the burnt colour with the rest of the skein, but I honestly haven't found great success with that.

The way to prevent scorched yarn is to be sure to use a stock pot with a thick bottom, and to keep the heat setting on the stove to the minimum that you need to get the right temperature. And finally, keep checking on the yarn and moving it around occasionally. Sometimes stepping away to take a phone call for 10 or 15 minutes is long enough to ruin your yarn.

Felting is another challenge when dyeing untreated wool fibres and yarn. Felting happens with the combination of three things, dramatic temperature changes, alkaline environments, and agitation. So taking your freshly dyed wool yarn out of the hot dye pot and then rinsing it in cold water could cause your yarn to felt. Also, heating your yarn or fibre at too high a temperature for too long can also cause a boiled wool effect, where the fibre, it doesn't feel like it's loose anymore, and it can't slide around anymore, it feels like it's all been compacted together. So when you're rinsing your yarn for fibre, be sure to let the dye pot cool down to the room temperature if possible, and then rinse with the same temperature water.

The second point is the alkaline environment. Soap can sometimes be alkaline, so while I've seen some dyers will add dish soap to their dye stocks to reduce the surface tension and allow that dye to penetrate into the yarn a little easier, using too much soap on untreated wool and mashing the dye in can also result in felted wool.

Finally, agitation, or even too much handling in the dye pot can cause your yarn or fibre to become felted and compacted. So try to be as gentle as possible, and handle the yarn as little as possible. It's kind of a fine balance, moving the fibre around enough to get an even dye result, but not moving it around so much that you end up with felted fibre.