

## CWSF 2007 - Truro, Nova Scotia



### Sarah Dalziel

#### **Woad-is-me: Finding a permanent dye from sustainably grown plant derived indigo**

**Division:** Biotechnology / None

**Category:** Junior

**Region:** West Kootenay & Boundary

**City:** Greenwood, BC

**School:**

**Abstract:** This study tested sustainably grown, natural indigo for dye technique and fastness on wool and cotton. Improved dye technique included revatting and changing the alkali agent in the vat. The correlation between time in the vat and depth of shade was also tested and measured with home-designed equipment. A test plot of *Isatis tinctoria* was grown and its hardiness to zone 3 verified.

#### Biography

I am a grade 8 home school student living on a fiber farm in B.C.'s southern interior. Our farm is surrounded by mountains and has deep snow for 5 months of the year. We often have frost in the summer so it's hard to grow a garden here. The wool, mohair and angora we grow make very warm clothing. I spin, dye, knit, weave, and felt. It's fun to play with fiber. I sell some of my fiberart at Christmas craft fairs and the farmer's market. Some of my fiberart is dyed with natural indigo. I also play the piano, mandolin, and recorder and take voice lessons. This is the first year I have done a science fair. I am very interested in natural dyes. I like to collect plants, weeds, and lichens and test them to see what colours they will dye. I am amazed at all the colours that are hidden in the plants on my farm. I want to farm when I am older and raise fiber animals and dye plants.