Dyeing with plants

By Patricia Young

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Colors to dye for

"There is something primitively satisfying about taking a sack full of weeds destined for the compost pile and re-routing them into your dye pot to make something useful." - Bobbi McRae, Colors from Nature

Plant Dyes from Antiquity to the Present

Long before plants were used to color fibers, colorants were used in diverse ways. The Picts of ancient Britain used the dye from the Woad plant (Isatis tinctoria) to paint their bodies blue to frighten enemies. In North America the red pigment in Bloodroot (Sanguinaria Canadensis) achieved the same effect. Henna (Lawsonia inermis) has been used for centuries to dye skin and hair. Many things yield dye: food, flowers, weeds, shrubby plants, wood, roots, bark, moss, beetles, mollusks, clay, lichen, leaves, seeds, mushrooms, minerals and even ground gemstones. By the early 1800s the most widely used fabric dyes were: indigo and woad blue; cochineal and madder red; logwood black; fustic, weld, safflower, and saffron yellow.

In Nature's Colors, author Ida Grae notes that the old dyes, representing thousands of years of trial, accidental discovery, and evolving refinement, were cast aside when the dye industry turned exclusively to the use of synthetic colorants in the mid 1800s. Fortunately, many craftspeople continued to keep the old traditions alive by using nature's bountiful supply of plant dyes.

Photo by Scott Terrell / Skagit Valley Herald - Tiny Stratton checks the color of a skein of wool she's dyeing with a solution made from marigold flowers Thursday, May 13, in Sedro-Woolley.

Out of necessity, a passion is born

When Tiny Stratton, an avid knitter, moved to the town of Machias, Washington back in the sixties, she couldn't find good knitting yarn. This led her to purchase her first sheep and another soon followed. To utilize her fleecy bounty, Stratton joined up with the owner of the local yarn shop who was willing to order some Ashford spinning wheels from New Zealand. A small cadre of spinners

met on a regular basis to learn their craft and expand their skills. They formed the Valley Spinners' Guild of Snohomish and went directly to the sheep farmers seeking good spinning fleece – no veggie matter and no second cuts. Soon they had white and gray wool in abundance, but few books to guide their way in the art of natural dyeing.

As Stratton explains it, they had dye-days and one thing just led to another. From this early experimentation with many mordants (or fixatives) and a plethora of plants, Stratton learned what works and what doesn't. One lesson learned the hard way was that Vetch should only be prepared in the house if you are willing to live with an awful smell! Some plants like mountain ash and the berries from Himalayan blackberry produce 'fugitive' or wash-out dyes.

Sunflowers, hollyhocks, dahlias and many other flowering plants are good sources. But stunning flowers do not guarantee brilliant dyes. Stratton's experimentation also led to many successes with lowly weeds such as horsetail, Scotch broom, buttercup blossoms, golden rod, and yarrow. Yarn dyed with Madder (Rubia tinctoria) grown in diverse areas of the globe, showed that plant genetics, not location or soil, is the determining factor in the dye produced.

Chemical dyes simply don't hold the same fascination as natural dyes for Stratton. Going for a walk can be a treasure hunt as she ponders the potential of plants – both wild and cultivated. Hooked on color, Stratton finds there is still much to investigate and learn in this fascinating hobby.

Left - Natural plant-based dye produced various shades of vivid colors in these handspun yarn samples. Right - Tiny Stratton shows the color variation between two batches of yarn processed in the same dye solution. With her natural dyeing process, time in the solution determines the color's shade and intensity.
Photos by Scott Terrell / Skagit Valley Herald

The Process

In the dyeing process, molecules of soluble colored matter stick to the fibers of the material being dyed. Mordants increase the dyestuff's ability to bond with the fiber and improve its color fastness. It is important to have a 'dedicated' pan if you are using mordants other than alum. Recipes will give you the ratio of plant materials to fiber being dyed. For example, one pound of wool requires about one pound of onion skins, so

Stratton suggests you'd better get to know your grocer (or grow your own!) Natural Dyes by Gwen Fereday is an excellent source book for dye recipes. In addition to the dyestuff, these are the four essentials for dyeing:

1. Water – neutral pH 7 (no chlorine). Some well water contains iron, which can affect the outcome.
2. Heat to simmer the dye materials.
3. Mordant - a chemical that combines with the dye to make the product colorfast.
4. Material to dye: sheep or alpaca wool, silk, cotton, linen, basketry fibers (raffia, sisal), and even corn husks

A Workshop to Dye For

Stratton has taught classes on dyeing and spinning for many years. She judges all categories of hand, wheel, and spindle spun yarn, and of course, natural dyed yarns at the Evergreen State Fair. She will share her passion and knowledge at a Know and Grow workshop sponsored by the WSU Skagit County Master Gardeners.

Know & Grow Workshop

What: "Natural Dye Plants: What's in Your Garden and Ditches"
When: Tuesday, May 25, 2010
Where: WSU Mount Vernon Northwestern Washington Research & Extension Center, Sakuma Auditorium, 16650 State Route 536 (Memorial Highway)
Time: 1:00 – 2:00 PM

Class is limited to 30. To reserve a place, please call Pat Young at 360-333- 2612 or email pcyoungretired@yahoo.com

Resources:

- **Growing Herbs for the Home Gardener,** North Carolina State Extension Service: www.ces.ncsu.edu/depts/hort/hil/hil-8110.html
- **Plants to Dye For,** New Hampshire State Extension Service: http://extension.unh.edu/fhgec/docs/PlntDye.htm
- **Herb Garden (and other areas in the Discovery Garden,)** WSU Mount Vernon Northwestern Washington Research & Extension Center, 16650 State Route 536 (Memorial Highway): http://skagit.wsu.edu/MG/discovery-gardens.htm