

NC MEDICINAL HERB NEWS

A Newsletter of the North Carolina Medicinal Herbs for Commerce Project

Volume 1, Issue 1

Summer 2005

ALSO IN THIS ISSUE:

Spring Harvest Highlight	Pg. 2
Marketing Outside the Box	Pg. 2
Creative Drying Method	Pg. 2
Homeopathy 101	Pg. 2
Plant Disease Alert	Pg. 3
Weed Management, Organic Style	Pg. 3
Buyer's Corner	Pg. 4

FOR YOUR CALENDAR

- June 15:** Gaia Herbs, Inc. in Breard, NC holds a tour open to the public. Contact Karen at (828) 883-5903 to sign up in advance.
- June 27:** Organic Pest Management Workshop in Pittsboro, 7-9 p.m. Debbie Roos, (919) 542-8202
- July 12:** Tour available at Gaia Herbs. Contact Karen at (828) 883-5903 to sign up.
- July 22-24:** Wild Herb Weekend, presented by the NC Herb Association in Valle Crucis, NC. Contact (919) 469-8102.
- August 17:** Tour available at Gaia Herbs, Contact Karen at (828) 883-5903 to sign up.
- September 9-10:** Symposium on Medicinal and Aromatic Plants, Mountain State University, WV. www.mountainstate.edu/usda
- September 16-18:** Southeast Women's Herbal Conference in Black Mountain, NC. 1-888-929-0777 or www.redmoonherbs.com/womens_herbal_conference/

THE MEDICINAL HERBS FOR COMMERCE PROJECT BREAKS GROUND FOR A SECOND YEAR

By Jeanine Davis

Welcome to *NC Medicinal Herb News*, the quarterly newsletter of the Medicinal Herbs for Commerce Project, dedicated to sharing our successes and keeping cooperating growers, buyers, funders, and extension agents informed about the project.

Medicinal Herbs for Commerce is part of the NC Specialty Crops Program, a cooperative program between the College of Agriculture and Life Sciences at NC State University and the Marketing Division of the NC Department of Agriculture & Consumer Services. We are grateful for funding from the Golden Leaf Foundation, the NC Tobacco Trust Fund Commission, the NC Rural Economic Development Center, and the NCDA & CS. This project is dedicated to developing the NC Medicinal Herb Industry by helping growers produce high quality, organic crops and bringing buyers to the state who are interested in purchasing our herbs. This year, almost fifty cooperating grow-



From left to right: Jeanine Davis, Libby Hinsley, Amy Hamilton, and Woody Woodward

ers across NC will be involved in the commercial production of medicinal herbs including *Echinacea purpurea*, valerian, and California poppy, among others. The experiences of growers and buyers involved in the project thus far suggests there is potential for medicinal herbs to be a viable commodity for North Carolina's farmers, and this remains the overall goal of the project. We look forward to another successful year and we welcome your comments, suggestions, and support.

Dr. Jeanine Davis serves as the Project Leader, while Woody Woodward has taken over the role of Project Coordinator, previously held by Jackie Greenfield. Libby Hinsley is the Assistant Coordinator and Amy Hamilton remains Research Assistant.

ON THE SUMMER HORIZON

By Woody Woodward

Welcome to our project's newsletter, to be published quarterly to coincide with upcoming seasonal shifts. This issue concentrates on topics concerning the summer season and in preparation for the upcoming fall harvest.

We will offer field days again this year to include the new crop of growers now submitting applications for their start-up this

July 1st. Many of them will be planting a perennial herb this fall for harvest next year which some of our second year growers will help support with a trial or two. Thanks to each of you for your continuing support in this project. We have definitely learned that medicinal herbs can be successfully cultivated in this part of the world. If we strive for quality in the finished product as a top priority, our products will stand out in the marketplace.

We see success coming in at least two areas.

(Continued on pg. 2)

SPRING HARVEST HIGHLIGHT

By Libby Hinsley

Peggy Garrett of Person County was the first grower in the Medicinal Herbs for Commerce Project to harvest a crop in 2005. She planted *Valeriana officinale* last spring, and by harvest time this April, each plant root weighed approximately 1-1.5 pounds. The plants were undercut, pulled out of the ground, shaken off, cut into smaller pieces, and washed over screen-bottomed trailers using hoses. With the help of family and neighbors, Peggy harvested over 1000 pounds of fresh valerian root for sale to Botanical Supply, Inc. The fresh valerian root, like other cooperating growers' fresh herbs, will be used to create homeopathic herbal remedies. You might ask, "What is homeopathy?" See the brief explanation to the right for Homeopathy 101.



Peggy Garrett of Person County washing a portion of a valerian root after harvest in April

HOMEOPATHY 101

- Homeopathy is a method of treating illness
 - Developed by Samuel Hahnemann, German physician who lived 1755-1843
 - Literally means "similar to what one feels"
 - Based on the law of similars—sick people are treated with very small doses of remedies that, in large doses, would cause the same symptoms of disease
 - Remedies are designed to trigger a reaction in the body to heal itself
 - Remedies are natural and chemical free
- To learn more about homeopathy, visit www.ashevillemnaturalhealth.com/

Harvest Tips

- ✓ Harvest when soil is dry
- ✓ Be creative about shaking off excess soil
- ✓ Have a well thought out plan BEFORE YOU BEGIN THE HARVEST

OUTSIDE THE BOX

The Medicinal Herbs for Commerce Project staff is here to support cooperating growers in the production and marketing of medicinal herbs. We continue to build relationships with bulk herb buyers and brokers in the natural products industry. We also encourage growers to explore other marketing outlets, including direct marketing of value-added products. Proactively seek information that will facilitate the type of marketing that makes sense for you. When produced according to applicable regulations, products such as herbal soaps, salves, and tinctures could present an opportunity for increased profits. Be creative, share your ideas, and let us know how we can work together to think outside the marketing box.

CREATIVE DRYING METHOD PROMISES GREATER AIR FLOW

Paige Lewis, a cooperating grower in Reidsville, has devised a way to dry his *Echinacea purpurea* in a bulk tobacco dryer to increase air flow and prevent plant material from being piled too densely and molding in the boxes. He'll insert pins into each box at 4 different levels, lay down chicken wire over the pins, and create four separate "shelves" per box. This method can also be used for other dried herbs.



ON THE SUMMER HORIZON (Continued from pg. 1)

One is the wholesale raw materials market, where cooperation among growers could yield increased volume of the higher demanded medicinal herbs. Another area involves smaller plantings of higher profit, value-added herbs which can be offered retail by aspiring entrepreneurs. This growing season, we all need to concentrate on post-harvest quality issues as demanded by the market, such as becoming certified organic and keeping up with heavy metal testing and tissue analysis. We can ensure quality during post-

harvest by keeping it low cost and using the best available methods wherever possible. We want this newsletter to stimulate you to think in those directions, for instance, the use of the pins within the boxes for drying found in this issue. If you can think of other ways to accomplish a high-quality post-harvest product, we would like to hear from you. Please consider this newsletter a two way street.

PLANT DISEASE ALERT: A POTYVIRUS IS ON THE PROWL

By Libby Hinsley

Potyvirus Identified in *Echinacea purpurea*

There's a plant disease impacting some of our growers' *Echinacea purpurea* plants. A diseased plant sample from a grower's field was analyzed at the NCSU plant disease clinic in Raleigh. The results showed that the plant was infected with a potyvirus. Potyviruses are aphid-borne. Infected plant leaves were yellowed, stunted, and the leaves were a bit curled and puckered (see photo). All of the plant leaves exhibited symptoms equally. Although in this particular case, a potyvirus has been identified, aster yellows has also been known to infect *Echinacea purpurea*. Yellowing of the leaves is also a symptom of this disease. It is vectored by leaf hoppers, among other things.



Echinacea purpurea plant infected with an aphid-borne potyvirus

Preventing and Reducing Disease Infestation

To prevent disease from destroying your crops, walk your fields regularly and pay attention to any unusual changes you see in your plants. Be on the lookout for yellowing, stunted, or wilting plants, as these could be signs of disease. All infected plants should be removed and destroyed to prevent further spreading. Take care to thoroughly clean all equipment used during the plant removal to avoid re-infecting your field with contaminated equipment. Keeping your fields well weeded is also a key to reducing your chances of disease infestation, as weeds can serve as habitat to common disease vectors such as leaf hoppers.

WEED MANAGEMENT, ORGANIC STYLE

By Libby Hinsley

In organic production systems, weed management can be particularly difficult. Managing weeds is critical when plants are in their early stages of development. Several methods can help. A good living mulch, or cover crop, planted in between crop rows can add nutrients to your soil while keeping weeds under control. In addition, simple tools such as flame weeders and wheel hoes can come in handy during the early stages of plant development.

can be effective for eradicating beds and in prior to crop. Wheel hoes are also effective, particularly when used on the same instrument, such as the Glaser Wheel Hoe does.



A nicely weeded field of California poppy

Flame weeders are effective for eradicating weeds in stale planted beds before germination. Wheel hoes can also be effective, particularly when used on the same instrument, such as the Glaser Wheel Hoe does.

At least one of our cooperating growers reports making use of a Glaser Wheel Hoe and finding it exceedingly useful. Making use of mechanical cultivation methods, where possible, will also save time and increase your efficiency.

For organic weed management, nothing can replace a proactive approach. Anything you can do to stay ahead of the weeds and be diligent in your eradication efforts will be a boost to your overall crop success.

WHERE, OH WHERE, ARE THE ORGANIC SUPPLIES?*

Certified organic fertilization and pest management supplies can be difficult to locate in North Carolina, but NC growers do have some options. Medicinal Herbs for Commerce staff makes a list of regional providers of organic production supplies available to cooperating growers. Below are a few such suppliers:

- Asheville Agricultural Systems, providing almost exclusively organic production supplies at locations in Asheville, Durham, and Greensboro. www.ashevilleag.com; 1-877-653-4112
- NewOb, Inc. provides packaging materials to use in conjunction with bailers. Contact Jim Bowen if you're interested: (919) 210-1411. Willing to work with small quantity needs with lead time.

* Inclusion of a company does not constitute an endorsement of products or services offered. Exclusion does not imply inferior products or services.

Resources for organically managing weeds and pests are also available at no cost from ATTRA, the National Sustainable Agriculture Information Service, online at www.attra.org.

**Mountain Horticultural Crops Research
 and Extension Center**

455 Research Drive
 Fletcher, North Carolina 28732

Phone: 828-684-3562
 Fax: 828-684-8715
 Email: woody_woodward@ncsu.edu or libby_hinsley@ncsu.edu



Medicinal Herbs for Commerce: A project to encourage the diversification of North Carolina
WWW.NCGERB.ORG | WWW.NCNATURALPRODUCTS.ORG | WWW.NCSPECIALTYCROPS.ORG

BUYER’S CORNER

Sending Pre-Shipment Samples to Prospective Buyers

By Jackie Greenfield of Gaia Herbs, Inc.

Growing a high quality botanical for the natural products industry is the first step to becoming a successful producer. How your product is handled after harvest will determine if the material is fit to sell. Buyers of raw materials often request samples before purchasing to examine how the material looks, feels, smells, and tastes. Additional testing can include correct species identification, percent moisture content, microbial testing, and analysis of bioactive levels.

Once a prospective buyer has been identified, send a representative sample of your plant material. For example, if a buyer is asking for dandelion root, you would not send a sample of dandelion leaf. If a buyer requests a fresh product, you would not send a dried product. If the buyer is purchasing flowers, it would not be acceptable to

send a sample of the immature plant before the flowers emerge.

Sample sizes can vary based on plant type and part used, but usually 30-60 grams are sufficient to send. Put the plant material in a food grade, zip-lock, clear plastic bag, attaching a label that includes the following information:

1. Date
2. Common and botanical name of plant and plant part
3. Your name/farm
4. Your address and telephone number
5. Lot number (very important)
6. Certified organic (if applicable)

The lot number is the reference number that identifies the grower’s field and/or crop harvest date. Most buyers require a lot number to maintain a paper trail on any product used and manufactured.



A labeled final product from a cooperating grower in Lenoir County. You need the same information on a pre-shipment sample label

If the plant material is fresh, ship the sample overnight and include an ice pack if needed. Once the sample has been mailed, notify the buyer of its arrival. After one week, follow up with a telephone call. Good luck!