

**Fall Equinox Focus Topic:  
On Farm Research**

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Look for Winter's Focus Topic:  
**Cultivating the Harvest**  
**Small Acreage Farming Conference**



# *Bringing Home the Harvest*

*Inland Northwest Community Food Systems Newsletter*

*Fall Equinox 1998*  
*Volume 1, Number 3*

## **The Challenge of Marketing to Restaurants: Keeping a Steady Supply**

*by Diane Green, Greentree Naturals*

GREENTREE NATURALS is a small organic farm located twelve miles north of Sandpoint, Idaho. We have been certified organic growers with the Idaho State Department of Agriculture since 1992. We have one acre in vegetable, herb and flower production and five acres in cover crops. We market our crops through restaurant sales, CSA subscriptions and the Saturday Farmers Market.

In our first year of market gardening, most of our produce sales were made at the Farmers Market at Sandpoint. Selling at the Farmers Market every Saturday was always enjoyable, although we did not always sell everything that we had brought to sell. There were always days that other vendors had an excess of the same produce that we had to offer. This inevitably brought the prices down and left us wondering why we were taking produce home at the end the market day.

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**Since we started selling to the restaurants,  
we have expanded our marketplace and  
increased our produce sales considerably.**

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I attended a Farm Direct Marketing Conference in Portland, Oregon in 1992. This was the first of many positive steps to expand our produce sales outside of the Farmers Market. One of the workshops covered the many aspects of how to make the restaurant connection with local chefs including how to approach them, when to call, and what steps to take to get a foot in the door. Attending this workshop gave me the basic information to make improvements in our marketing techniques. Since we started selling to the restaurants, we have expanded our marketplace and increased our produce sales considerably.

We tested the waters five years ago with a new French restaurant in Sandpoint. I took my seed catalogs in to meet with the owner/chef in February to see what kinds of things he might be interested in having for the summer season. I found that most of the things the chef wanted were items that would **not** grow in North Idaho. Most chefs have no idea what is involved with production of herbs and vegetables. With some searching through assorted catalogs, however, we were able to find enough items of interest to meet some of the restaurant's needs.

The first summer, we supplied the French restaurant with an assortment of salad greens, herbs and specialty produce. We ended up with a cold, rainy growing season and low yields. Still, we were able to furnish an assortment for the restaurant and prove to them that we were committed to providing quality produce.

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**Bringing Home the Harvest** is a quarterly newsletter of the Inland Northwest Community Food Systems Task Force and is published jointly by the University of Idaho Cooperative Extension, the *Palouse-Clearwater* Environmental Institute and Washington State University Cooperative Extension.

**Bringing Home the Harvest** shares the knowledge and experience of people working in community food systems and the opportunities and challenges facing small acreage farmers and market gardeners in the Inland Northwest. In addition to sharing information and resources, **Bringing Home the Harvest** helps make connections between producers and consumers in northern Idaho and eastern Washington, encourages sustainably produced foods, and works to enhance the economic viability of small scale producers and the communities where they live.

Articles for publication and letters to the editors are welcome and must include the name and address of the author. Opinions expressed in the newsletter are those of the individual authors and not necessarily those of UI, PCEI or WSU.

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We learned quickly to be certain that we had enough to meet the demands throughout the season. Staggered plantings are a necessity! If the chef wants 80 squash blossoms for a special dinner menu, you should be prepared to meet their needs. If you end up picking 80 squash blossoms, will you end up with no squash when they want it? Utilizing season extenders expanded our window of opportunity for earlier and longer seasons with assorted vegetables and flowers.

The second year proved to be much more successful for us as well as the restaurant. We began produce deliveries to another establishment and expanded the garden. The third year we added a third restaurant. This (1998) is our fifth year of selling to the restaurants, and we now sell to five of Sandpoint's finest. The garden expands a little every year to meet the needs of our established market.

The biggest challenge has been to keep a steady supply of all types of produce. Figuring out production needs has been a continued learning experience for us also. We started out struggling to come up with three pounds of salad mix a week. We now sell twenty-five pounds a week from the 1<sup>st</sup> of May to the end of September. Keeping a steady supply of baby lettuces during one of the hottest summers on record was quite miraculous. We needed enough basil to keep a healthy rotation for harvesting six to eight pounds a week. Staggered plantings of beans kept us harvesting 100 pounds every four days.

We have formed a growers collective which brings in other small farms like ours to combine our resources and meet the demands of the market. At this point, the demand exceeds what we are able to deliver. We decided that it made more sense to work with other farmers and share the market. This keeps us from being in competition with each other, increases the volume of product that we have to offer, and makes it more of a community enterprise.

Pricing of produce is a point of contention that often comes up for discussion with restaurants. Why would they pay twice as much to buy from you when they can get it cheaper brought in from two thousand miles away? Small-scale producers can not compete with the large-scale farms of California and Texas. We do not have the funds to bring in crews for planting and harvesting. It is very important NOT to compromise yourself by trying to compete with the large farms and cheap produce! If an establishment is not willing to spend a little more with your produce, then it is time to look for another restaurant that will.



What the local farmer provides is a "no waste" product. What is delivered to the restaurant is usually no more than 24 hours from the field to the kitchen. This should be worth more per pound! What they purchase from the commercial produce suppliers is already at least seven days old (often older) and ends up with quite a bit in the garbage can. I still remind them of this five years later when the subject of costs comes up. It is very important to educate your customer about these things.



## Suggested Resources

### Books:

*Going Local: Creating Self-Reliant Communities in a Global Age* by Michael H. Shuman, The Free Press, Simon & Schuster. The concepts in *Going Local* played an important role in planning the focus of the March 7<sup>th</sup> post conference sessions of the INW Small Acreage Farming Conference (see page 8). With specific examples, Shuman discusses the benefits of investing locally and supporting community development.

### Websites:

Healthy Farmers, Healthy Profits

[http://bse.wisc.edu/HFHP/HFHP\\_home.htm](http://bse.wisc.edu/HFHP/HFHP_home.htm) This site has labor efficiency tip sheets from the Healthy Farmers, Healthy Profits project at the University of Wisconsin-Madison. The goal of this project is to find and share work efficiency tips that maintain farmers' health and safety & also increase profits.

The Farmer Direct Marketing Web Site

<http://www.ams.usda.gov/directmarketing>

The site features a monthly newsletter, publications, a bibliography, and schedule of national and regional conferences and workshops. Resources such as information about list servers and links to other USDA and federal programs, state departments of agriculture, national and regional associations, and individual farmers and public markets with web sites are available. The web page also provides contact information, and eventually will feature on-online order forms for publications.

It is important to ask lots of questions of the chefs you are dealing with. How large do they prefer their squash? What kind of squash do they want? What is too large? What do they like to use for garnish? I have learned that most fine chefs prefer baby vegetables; the flavor is sweet and the fruit is tender. I have also found through the restaurants we have dealt with, that quality chefs prefer only quality produce. And, by only providing them with the best we have to offer, we have created a niche for ourselves that has become a relatively secure market for our product.

**It is very important NOT to compromise yourself by trying to compete with the large farms and cheap produce!**

We have developed a restaurant survey that we now mail out to old and new customers every year. It lists what we grow and asks them to give us an estimate of how much they think they will use weekly. This helps us determine how much to plant for the season. And also gives us the comfort of knowing that we already have the market for what we are planting.

We have learned when dealing with the restaurants to be consistent with time of calls and deliveries. Ask the chef what would be a good time to call. What days do they prefer deliveries? Guarantee your products for freshness and quality. If there are any problems, replace the produce!

I would encourage anyone considering sales to this type of outlet to start with only **one** restaurant for the first year. Figure out what works for you. I have found that a lot of growers are not comfortable with dealing or delivering the produce. It takes an extra effort to work with the schedule of a dining establishment. We feel that it is worth the effort due to increased volume of sales.

When we sell at the Farmers Market, we sell in one pound lots. This takes a lot of time to bag things up. To the restaurants, we sell in five to twenty pound lots or cases, and we know that the product is sold when we deliver. Our season is April to September, with the peak sales during the tourist season in July and August.

We still sell at the Farmers Market once a week, and have found increased sales with larger orders from the restaurants. We have made a commitment to deliver twice each week to the restaurants. Depending on what is happening with the customer base coming through town, deliveries often end up being two and three times a week in the peak tourist season. We will do whatever we can to work with the chefs and provide them the freshest quality produce we have to offer.

Most of us who have chosen to become farmers or market gardeners are ready to become sustainable at what we do. I have learned through a lot of trial and error that marketing the product is half the art of being successful as a farmer. Cultivating a cash crop is equally as important as finding the market for that crop, and restaurants have great market potential. So many local growers ask me "How do you do what you do?" that I have decided to write a book about "How to Sell to Restaurants."

We all need as much information as we can find to help us be more successful as producers. Hopefully I will complete my final chapter of this book and get it to the press this winter. Anyone interested in more information about this publication can contact me at Greentree Naturals (208) 263-8957 or [gtreenat@dmn.net](mailto:gtreenat@dmn.net). 2003 Rapid Lightning Road Sandpoint, ID 83864.



**Producer-Directed Research Effort  
Calls for Proposals**

*Prepared by Kristin Kelleher, WSARE  
Communications Specialist*

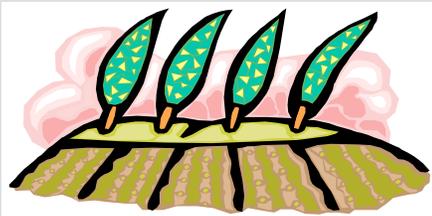
(Logan, UT) -Producers and producer groups residing in the Western U.S. can compete for grants to identify, evaluate and test their "in-the-field" sustainable agriculture practices and challenges through an effort sponsored by the USDA Western Sustainable Agriculture Research and Education (Western SARE) program. A call for proposals will be released October 13, 1998.

Individuals can apply for grants of up to \$5,000; producer groups (three or more farm/ranch operations working cooperatively) can apply for up to \$10,000. A total pool of \$120,000 is available in the region for one-year grants. Completed proposals will be due at the program's administrative office at Utah State University by 5:00 p.m. (Mountain Standard Time), January 15, 1999.

To request application materials, contact the host office at Utah State University at (435) 797-2257 or [wsare@mendel.usu.edu](mailto:wsare@mendel.usu.edu)

The call for proposals will also be available on-line via the Western SARE Web site at <http://ext.usu.edu/wsare/>

According to soil scientist Phil Rasmussen, regional coordinator of Western SARE, grant reviewers will be looking for proposals that clearly define local sustainable agriculture problems or issues and propose innovative solutions. On-farm tests of suggested technologies and approaches are strongly encouraged.



**Recipe Corner**

*by Colette DePhelps*



**Summer tourists enjoy some on-farm "culinary research" at Killarney Farm.**

**PAO DE LÓ**

Pronounced "pow ja low," this Brazilian birthday cake was one of the most popular dishes served on the Killarney Farm tour in August. During the summer, it is wonderful topped with fresh berries and cream. In the winter, try topping the cake with frozen berries, a lime glaze, guava paste or just plain. Any way, it is guaranteed to be a treat -- especially when made from locally milled flour, milk and eggs.

- 4 farm fresh eggs
- 1 1/2 to 2 cups organic sugar
- 2 cups organic, unbleached wheat flour
- 1 cup boiling 2% or whole milk
- 1 teaspoon non-aluminum baking powder
- 1 teaspoon grated organic lemon rind

Preheat oven to 375 degrees. Grease and flour a bundt pan. Beat egg whites till fluffy; add yolks, mix well. Add sugar, flour, and lemon. Pour in boiling milk. Finally, mix in baking powder.

Pour batter into bundt pan. Bake for 35 minutes or until done. Allow cake to cool slightly in the pan. Invert to remove from pan. Cool on a wire rack. Place on a large cake plate. Top with fresh berries and cream, guava paste or a lime juice and sugar glaze.

**Cooking in Season --Ginger Carrot Soup**

- 1/4 cup butter
- 2 pounds carrots
- 2 large onions
- 1 tablespoon peeled, minced ginger
- 2 teaspoons grated orange peel
- 1/2 teaspoon ground coriander
- 3 cups vegetable stock or water
- 1/2 cup fresh parsley
- Salt and pepper to taste

Melt butter; add chopped carrots and onions. Cover and cook about 15 minutes, stirring occasionally, until vegetables begin to soften. Stir in ginger, orange peel, coriander and two cups stock. Simmer about 30 minutes until carrots are very soft. Puree in food processor. Return soup to pot. Add remaining stock and parsley. Heat through. Season with salt and pepper and serve hot. Serves four.

All research proposals must be led by one or more producers, include a professional agricultural technical advisor (a farm advisor or university researcher, for example), and provide a plan for sharing gained information with others in the community.

Grant proposals are first reviewed and evaluated by a diverse group of producers, researchers, educators and administrators who are familiar with sustainable agriculture. Final selections are made by an appointed panel, at least half of which are producers. All funding is awarded competitively.

Any commercial producer or producer group is eligible to apply for a grant, but only one award will be bestowed annually to an individual producer, farm/ranch enterprise or producer organization.



**About SARE**

The federal SARE program is managed by the U.S. Department of Agriculture's Cooperative State Research, Education and Extension Service, and directed regionally by four independent, broad-based councils.

Utah State University is host to the SARE program in the Western region, which includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming and the Island Protectorates.

**(For more information about this program, please contact Cinda Williams, 208/885-7499)**

**An Exercise in Market Surveying:  
Locally Grown Apples Rated by Market Gardeners**

*by Vickie Parker-Clark*

What apple varieties should I grow? That's a question that members of the Small Acreage Farming/Market Gardening short course tried to answer through a quick exercise in market analysis. Six locally grown varieties were put to the test for aroma, texture, flavor, and overall appearance. All apples were purchased at the same time from the same producer and refrigerated for two days before the test. Apples were cut up as needed during the market analysis exercise to prevent browning. Varieties were numbered so knowing apple names would not bias class members. Each person rated the apples, and then posted their results on a summary chart using green dots to indicate a "great" rating, orange dots to indicate an "OK" rating, and red dots to indicate a "Yuck!" rating.

Here are the results of our market analysis:

	Great % of class	O.K. % of class	Yuck! % of class
Jonagold	92	8	0
Braburn	58	42	0
Red Delicious	0	58	42
Laura Red	8	69	23
Jonathan	8	31	61
Empire	21	50	29

If the great and O.K. ratings are combined into an "acceptable" category, only one of the varieties, Jonathan, was eliminated (got less than a 50% acceptable rating).

Discussion followed on the importance of:

- identifying your customers (why would they buy your apples?)
- educating your customers (how do they store and use your apples?)
- adding value to apples through pies, cider, butter, etc.
- continually keeping up with tomorrow's trends
- doing in-depth market analysis before you plant one tree!

Our market survey exercise was not developed as a scientific study, but at a basis for discussion about production and marketing of tree fruits.





## Shared-Use Commercial Kitchen Network Conducts Surveys

by Vickie Parker-Clark

The Kootenai/Benewah/Shoshone Shared-Use Commercial Kitchen Network task force was formed last spring to determine the interest level of restaurants, senior citizen centers, and other owners of health department approved kitchens to rent those kitchens during "down time" to specialty foods producers. The task force borrowed this idea from the Montana Triangle Kitchen Network in north central Montana. Past discussions with specialty foods producers and potential producers in this three county area in northern Idaho indicated that the region's two available commercial kitchens were too far away (one west of Spokane WA and one at Sandpoint ID). The task force members also thought some kitchen owners who have seasonal business fluctuations might welcome additional income from renting out their kitchens.

We developed surveys and sent them out to over 450 establishments in the three county area. Of those returned, fourteen businesses or organizations indicated interest in pursuing this idea. When asked what days of the week their kitchens could be rented, the distribution was fairly uniform, with Wednesdays and Sundays having a slightly higher availability. Not surprisingly, time of day most available is midnight to 6 a.m. (71% of respondents) followed by evenings (43%).

## How Do You Answer All Those Production Questions?

### EXPERIMENT

by Vickie Parker-Clark

Small acreage farmers are always experimenting. Which of these varieties yields the most? What's the best mulch for weed control? How can I eliminate insect pests organically? All of these questions and many more pop into your heads daily. And if you do experiment, how do you know that you get reliable results?

You can answer your questions reliably by following some simple guidelines when setting up and conducting your experiment. These guidelines allow you to set up experiments with fair and unbiased comparisons. Three "ingredients" make this possible: check treatments, replication, and randomization.

- ✓ **Check treatment** - to define a check treatment, first we must define a treatment. That is whatever you want to test. For example, if you want to test new varieties to see which one yields the most, each variety is a treatment. Your check treatment would then be a variety that you've grown for years and know how it performs. If you want to test the effect of different levels of nitrogen on yield, your check treatment would be no fertilizer. You should keep the number of treatments to a minimum - no more than three or four in each experiment.
- ✓ **Replication** - Repeating the same treatment several times. This allows you to measure results from the same variety, for example, that may grow differently due to soil differences, irrigation differences etc. Averaging replications within each treatment then tells you which treatment really did the best in your environment.
- ✓ **Randomization** - You don't want to bias your experiment by putting all replications of one treatment in an area that either gives it an advantage or disadvantage, e.g. more water, better fertility, in a weedy area. So, you want to randomize the treatments. University of Idaho Extension Publication CIS 1041, Conduct Your Own Garden Research, shows several ways you can randomize treatments.

What else do you need to consider before starting your experiment? Well, the obvious is choosing a question you want to answer. This may sound obvious, but you may have lots of questions. So be specific, and keep it simple. It helps to write down your question and make sure it's in the form of a simple sentence, not a compound one (remember English grammar?).

Next you need to determine what information you need to gather to answer the question. Do you need to collect yield data, quality data, weed species data?

You also need to select a site. The site should be as uniform in slope, soil type, water movement, sunlight, etc. as you can find. When the site has been selected, draw a map of the area. This will help you place your experiment in the most uniform area. Lay out your experiment on the map, and then in the field.

Next you will want to collect the data. It's critical that you are consistent. Take yields on all plants at the same time, measure quality in the same way, count numbers of weeds per area with the same grid or ruler for all replications, etc. Count each replication SEPARATELY. For example, don't pick fruit from all plants of one variety in the same basket. Use separate baskets. As you collect your data, make general notes about field condition, pest pressures, broken irrigation pipe, weather, etc. These notes will be valuable when you start analyzing your data.

Seasonal availability was also not surprising with January, February, and March available by 93% of respondents, and November, December, and April available by 86%. (It might be noted that November and December are peak times for specialty foods producers getting ready for Christmas.) Other months were in the 60 to 70% range. The most common rental fee required was \$15-20/hour (43%). Lower rentals were not popular with 7% indicating a rental fee requirement of \$10-15 and 15% at \$5-10/hour. Twenty one percent of the respondents wanted \$25-30/hour. Food safety training would be required by 79% of establishments, most requiring health department standards for the training.

When asked about equipment availability, 50% had no extra storage space for outside users, 36% did have extra refrigerator and/or freezer space, 57% had a commercial mixer, 43% had a food processor, and 14% had a boiling water canner. Other equipment was surveyed as well, but due to space limitations, won't be reported here. Seventy-one percent had no insurance to cover use of the equipment by other users. Most of the kitchen owners preferred to work with individual users rather than a cooperative manager (71%). When asked if they wanted to be included in a directory, 64% indicated they would.

At the September task force meeting, we decided to explore the idea of developing a shared-use commercial kitchen directory with the fourteen interested establishments. The directory will include the rental requirements indicated by participating kitchens: fee structure, liability requirements, user training in food safety, contact person, etc. We will work with the Panhandle Health District to determine the use category for each of the participating kitchens. The directory, when completed, will be available to specialty foods producers and potential producers in the three county area.

**(For a copy of the survey summary, contact Vickie Parker-Clark, 208/667-6426 or [vparkerclark@uidaho.edu](mailto:vparkerclark@uidaho.edu))**

Lastly, you will make your conclusions. You do that by comparing the average response of each treatment, using the numbers you gathered from all your replications. Do not discard data that doesn't agree with what you expected to find. If one treatment clearly outperforms all the rest, your conclusion is fairly straightforward. If this is not the case you may want to do a statistical analysis. There are a number of simple statistics packages for personal computers.

Don't be afraid to experiment. There are more questions to be answered for small acreage farmers than there are resources to answer them. You don't have to wait for somebody else to solve your problem. You can do it! It's fun!

(For more information, read "Conduct Your Own Garden Research" by Vickie Parker-Clark & Ed Bechinski, CIS 1041. \$1.50. It can be ordered through your local Univ. of Idaho Extension office or from Ag. Publications, Univ. of Idaho, Moscow ID 83843. (208) 885-7982.)

### Gift Baskets for Legislative Tour

*by Beth Malouf*

This fall, sixteen lucky Idaho state legislators received gift baskets, welcoming them to their tour of North Idaho. The baskets, prepared by the Kootenai County Farmers' Market Association, were full of locally grown and locally produced foods. While the food caught the attention of the legislators, a brief note explaining "Who are we?" gave them some valuable information about farmers' markets in this region. This note included specific economic information (such as gross annual sales at the Kootenai County Farmers' Market were over \$100,000 in 1998) and the general benefits of active farmers' markets on the communities (such as the opportunities they create for developing entrepreneurial skills). Legislators were also informed about the diverse marketing plans of local producers, including CSA's, catalogs, grocery stores, restaurants, and wholesale. A card attached to each said: "The small acreage farmers and specialty food producers who participate in the Kootenai County, Moscow, and Sandpoint Farmers' Markets hope you enjoy your tour!"

The exposure to local produce and food products was meant to give Idaho legislators a better appreciation for the importance and diversity of Idaho agriculture. For more information about the tour and baskets, contact Barbara Arnold with the Kootenai County Farmers' Market Association.



**Vickie Parker-Clark and Barbara Arnold present gift baskets highlighting local products**



## Greenhouse Solarization to Control Fungus

by Larry Higgins, Sacred Earth Farm

Our small commercial organic farm is located in a mountainous region of north Idaho 60 miles from the Canadian border. Being subject to a relatively short growing season, producing hot weather crops in a greenhouse has always been a desirable option for us. However, fungus and molds became an ever-increasing problem in our greenhouse raised beds.

After trying various organic remedies to eliminate the fungus and molds and meeting with unsatisfactory results and continually declining yields, we realized we needed to approach our problems differently. We applied for a USDA Sustainable Agriculture Research and Education Producer-Directed Research grant (see page 4 for more information on this SARE grant) to investigate a viable solution to our fungus and mold problems.

Our original greenhouse production schedule included growing bedding plants and greens on tables in the spring, then removing the tables from the greenhouse and planting tomatoes, peppers, basil and cucumbers in our greenhouse raised beds. Late in the summer is when our fungus problems arose, resulting in reduced yields and a subsequent loss of income.

Our research plan was to continue raising bedding plants and greens in the spring then to solarize the soil in the heat of midsummer. Following this, we would forgo raising tomatoes and other hot weather items. We would then and transplant salad greens into the greenhouse for late summer and fall harvests. With this process, we hoped to achieve the same income as with our former regime.

PLEASE JOIN US FOR

## Cultivating the Harvest

### Inland Northwest Small Acreage Farming Conference

March 4<sup>th</sup> - 7<sup>th</sup> 1999

Student Union Building (SUB) at the University of Idaho, Moscow, ID  
Coordinated by the Inland Northwest Community Food Systems Task Force

Keynote speakers will discuss successful small acreage farming and scale appropriate agriculture. You will have the opportunity to choose from over thirty sessions led by experienced small-acreage farmers and other qualified professionals. We have grouped the sessions into four topic areas:

- **Sustainable and Organic Production Systems** sessions will include Soil Health and Managing Fertility, Cover Crops and Green Manure, Drip Irrigation Basic Entomology, Composting, and Organic Methods of Pest Control.
- **Producing and Marketing Specialty Crops and Value-Added Products** sessions will focus on Value-Added Processing and Marketing, Pastured Poultry, Botanicals, Fresh Market Vegetables, Perennials and Cut Flowers.
- **Risk Management Through Creative Marketing** such as Community Supported Agriculture (CSA), Grower Collectives and Cooperatives, and Marketing to Restaurants, and Marketing on the Internet.
- **Reducing Risk Through Effective Farm Management** sessions will discuss What to Produce: Land and Enterprise Selection, Apprenticeships and Farm Labor, Financing Your Small-Acreage Farm: Start-Up and Expansion, Goal Setting and Planning.

**Conference Schedule:** Thursday, March 4<sup>th</sup> we will have pre-conference tours in the Moscow-Pullman Area. The main conference sessions and keynote speakers will be Friday and Saturday, March 5<sup>th</sup> and 6<sup>th</sup>. The Small Acreage Farming Trade Show will be from 3 -5 p.m. in the SUB Ballroom on Saturday. The Palouse Folklore Society will be hosting a contra dance for conference participants and community members on Friday at 7:30 p.m. On Sunday, March 7<sup>th</sup> we will have post-conference sessions that focus on developing community-based economies and the economics of locally owned food and farm enterprises. NOTE: Some conference scholarships are available.

For more information about "Cultivating the Harvest," contact Colette DePhelps at PCEI 208/882-1444 [dephelps@pcei.org](mailto:dephelps@pcei.org).



## How can you make sure we all eat well at this conference?

We are committed to living and eating well, and we want to make sure the meals at this gathering reflect our commitments. To us, eating well means eating healthy, locally grown foods. Peggy Adams is coordinating this effort and would like your input as soon as possible (by December 15<sup>th</sup> 1998). Conference participants will have the option to purchase a meal plan providing lunch on Friday and Saturday and dinner on Saturday. The post conference participants will have a brunch on Sunday.

Please send to [peggy931@uidaho.edu](mailto:peggy931@uidaho.edu) or call Peggy at PCEI (208/882-1444):

- ✓ Menu ideas and/or vegetarian recipes for lunch, dinner, or brunch that use food available in the Inland Northwest in March,
- ✓ Information about what food products (and how much) you would have available to sell or donate at that time.

To solarize the soil, we prepared the beds for planting and soaked the soil. At this point, a thin layer of clear plastic was laid over the soil. The greenhouse was then closed up, letting the soil bake for 5-6 weeks. From what we had read, we expected this process to control the fungus as well as stimulate microbes in the soil.

The change in our greenhouse management regime was a success! We showed higher sales from the out of season greens than from prior hot weather crops. The fungus problems didn't show up in these crops either.

There were other benefits to the greenhouse solarization that were hard to measure financially:

- Freed up labor during solarization for other areas of the farm.
- Water was saved not watering a thirsty greenhouse.
- Earthworm activity after solarization greatly increased.
- Provided a late, out-of-season, high demand item, while extending the marketing season.
- Eliminated a lot of stress from fighting fungus that was hard to control organically.
- Fewer insect problems after solarization.
- Reduced fall heating costs.

After one season of trying this system, we were pleased and excited with the results. Solarization seems to be a low-tech, low cost method of controlling pest and fungus while still allowing a northern grower to profit from his/her greenhouse.

For more information on this greenhouse solarization project, write to:

Sacred Earth Farm  
1155 Gold Creek Ridge Road  
Sandpoint, ID 83864  
208-263-7647

## Experimentation Helps Meet the Complex Requirements of Echinacea

by Ira Greene, North Idaho Botanicals

Plants such as Echinacea develop complex methods to delay germination of their seeds in order to increase survival potential. *Echinacea angustifolia* (narrow leaf purple coneflower) is a tough seed to germinate. It needs "cold stratification," a temperature variation produced by freezing and thawing. To optimize the germination of my Echinacea seeds, I experimented with a variety of methods and conditions.

One method I tried to mimic nature's temperature variations was to move the seeds in and out of the freezer and refrigerator. With this method I only got about a 60% germination rate. Optimum germination was at 68 degrees F.

The seed that I placed outside over the winter in flats did much better with a 71% germination rate. The problem with using flats is that this plant requires an extremely deep cell flat. In a shallow flat, the root, where most of the growth occurs, turns sideways, and the vigor of the plant is cut off. This year I have solved this problem by using pine cells, normally used in the tree planting business. These are deep 4.75 inch cells with 1 inch across at the top. With the right soil mix, the plants pop right out of the cells and transplant shock, which is the tough part of growing and planting, is minimized. I also soaked some of my seed in a 1% hydrogen peroxide solution to increase germination, but I noticed no real increase.

The main factor in growth was in my soil. The area that was lime rich with pH ranges from 6.5 to 8, even with poor nitrogen, produced the best roots. Root growth takes 3 years for optimum alkaloid production and with a market price of between \$25 + \$35 per pound dry. Northern Idaho's growing conditions make this a prime plant for our region.

The time of harvest and the drying procedures you use affect the quality of the alkaloid concentrations in various plant parts. I have a large drying room with hot water coils in the floor and good circulation from greenhouse fans. The temperature is critical. My suggestion to most farmers is to get the book by Tim Blakley "Medicinal Herbs in the Garden, Field, and Marketplace" and "Echinacea" by Steven Foster as these two books outline everything one needs to know about producing Echinacea..



### *Echinacea sp.* cultivated in the Inland Northwest

If I were doing things again, I would have used more machinery rather than hand labor. These plants are naturally labor intensive, and even though one needs to treat them in special ways, I learned shortcuts. The most important shortcut is proper soil preparation with lots of lime and some nitrogen. This year I am starting greenhouse cultivation in February in order to have an older plant by planting time in June.

For more information, contact Ira Greene at [iragreene@juno.com](mailto:iragreene@juno.com).



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### **Inland Northwest Food and Farming Calendar**

**Jan 12-Feb 23 University of Idaho Short Course: Practical Plant Pathology: Emphasizing Diseases of Landscape and Garden Plants**, Tuesdays, 6-9 p.m. This course will give participants 1 UI credit, 15 hours of Idaho Department of Agriculture and 15 hours of Washington State Pesticide Use Recertification credits. Contact: Terry Finnerty at Bonner County Extension, 208-263-8511 for more information.

**Jan 26-Apr 27 Small Acreage Farming/Market Gardening course**, Tuesdays, 6-9 p.m. UI Extension Office, 106 E Dalton Ave, Coeur d'Alene, ID. Cost is \$125/person and preregistration by Jan 12th. (208-667-6426 for more info.)

**Jan. 15 SARE Producer Grants due** (see page 4 of this newsletter for details)

**Jan 20-22 Joint North American Farmers' Direct Marketing Assoc. and Great Lakes Vegetable Producers Conference**, Grand Rapids Michigan. Preconference tour 17-19th, and post conference tour 23rd. (616-887-9008 for more info.)

**Feb 18-20 Western Canadian Medicinal and Aromatic Plants Conference**, Kelowna BC (208-667-6426 for more info.)

**Feb. 25-27 Pacific Northwest Farmers' Direct Marketing Conference**, Medford OR (509-547-5538 for more info.)

**Mar 4-7 INLAND NORTHWEST SMALL FARM CONFERENCE, MOSCOW ID** (208/882-1444 for more information -- see page 8 of this newsletter for details).

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