Summer Conference Looks to Be Biggest Yet!

by Steve Lorenz

Registration forms for the 2004 NOFA Summer Conference and Celebration of Rural Life should be in your hands by now, and, for those who want to avoid the paper route and like the convenience of online registration, it is available on the web at www.nofa.org. If you are still with me and haven’t dropped this paper to register immediately, maybe I can tell you a few things that will make you do just that.

Longtime Maine farmer Eliot Coleman will be giving an intensive 8-hour workshop to kick off this year’s conference. Coleman’s planned retrospective on 40 Years in Farming has garnered so much interest from the NOFA community that folks were calling about registering before registration forms had even been sent out. Eliot is hot—we anticipate the 250 preconference slots will fill up quickly, so if you want to hear numerous opinions on the state of organic agriculture, practical advice on farm planning, rototilling and winter growing, and tales of inspiration from our popular 2000 keynote speaker, run, don’t walk to your mailbox.

The preconference runs Thursday afternoon-August 12 (1-5 p.m.) and Friday morning-August 13 (8 a.m.-noon), and directly precedes the conference which gets underway Friday at 1:30 p.m.

We sincerely hope that Eliot Coleman gets you headed toward Amherst, Massachusetts, but if attending the preconference is just not in the cards for you and yours, then you absolutely must consider coming to the rest of the conference, which could possibly be the biggest one ever. On Friday night, we will have the great pleasure of hearing one of the most eloquent voices in the international agriculture milieu, Dr. Vandana Shiva of India. A fierce advocate for the protection of water rights and native seeds, and a foe of the genetic modification of crops, Shiva will lend a strong international perspective to our great regional conference. Writing in a recent commentary about the feared loss of the incredible variety in the Indian wheat crop due to Monsanto’s genetic modification and theft of Indian wheat seed (Wheat Biopiracy, April 24), Shiva is a dynamo of knowledge and force, a voice which—although fairly widely known on the world stage—needs to be heard by more people. She will bring her engaging oratorical style to the Robert Crown Center in August, and we at NOFA will have the extreme good fortune to be able to hear her describe the sometimes desperate and sometimes inspiring situation of farmers and peasants from India and other ‘developing’ countries. It is a keynote not to be missed, for sure.

The third piece of our Triple Crown of can’t-miss events this year is sure to be much attention on his appearance polling in the 5-7 percent range right now, there presidential candidate Ralph Nader. With Nader advocate and three-time (including this year) scribed libertarian) and longtime consumer

Saturday night debate between Republican the whole conference is “can’t miss”) is the miss events this year (though we like to think With the opportunity to pursue a debate on this scale falling into our collective lap, aren’t you glad we’re having it? We certainly don’t farm, garden, and/or buy food in a vacuum. In a further note about the debate, we will have a live feed of the debate going into a room in Franklin Patterson Hall for those who are either shut out due to a Crown Center sellout or elect to stay with children in a less-crowded environ-ment.

With all the hubbub about Coleman, Shiva, Nader and Paul, you might have started to think that we didn’t have any entertainment options at this year’s conference. That couldn’t be farther from the truth. At the preconference on Thursday night after a good, organic meal—new this year! the band Bo Bo Denk will provide good, live music to get you dancing. During the keynote, storyteller/musician John Porcino will delight kids and adults alike. He was in the lineup several years back and he is making a return to NOFA. Friday also is the night of the get-acquainted party and contradance with Rhubarb Pie, always a treat and a great way to kick off the weekend. On Saturday night, butting heads with the debate, is the ever-popular Steve Leicach and his participatory drumming journey. After the cool heads prevail at the debate, lots of folks will want to knock back some cool drinks and get funky with yezzybo band Dirty Rice. As always, we’ll have a number of videos available to entertain and inform throughout the weekend.

For adults and children alike, the old-fashioned fair on Saturday afternoon is something to look forward to: a triumphant parade led by tomorrow’s farmers leads to Dale Perkins’ awe-inspiring horse show, which leads to a vast array of games and contests, including peanut in a haystack, bobbing for tomatoes, a butter dance, relay races, and a blueberry pie eating extravaganza. Fair coordinator Tricia Cooper would love you—yes, you, you part-time fiddler, banjo player, or whatever you play—to bring your instrument to the fair to make merry, old-timey sounds for all of us. If you’re interested, contact her at triciacoop@hotmail.com or 617-558-3322. Likewise, if you’d like to sell or show your products during the farmer’s market (12-6 on Saturday), contact Tricia. Whether it’ll be a full stomach (for blueberry scones), a juicy tomato, or just fond memories, the Saturday fair will surely provide you with something to carry away.

The full and satisfied belly you’ll take away from the whole conference will either come compliments of Maria Skinner and Ellen Kettredge and the Hampshire dining staff, or from one or more of the food vendors who will sell their goods at the conferences during the weekend. In a clear break with the government’s anti-France directive, the menu features French Onion Soup, French Toast, and French Potato Salad; among other weekend culinary highlights will be a tortilla bar, whole grain pancakes with blueberries, and both lamb shepherd’s pie and vegetable shepherd’s pie and... localized (or maybe more?). Along with the vendors’ food which will be available for most of the day, NOFA Nibbles will make a partial return (under the guidance of veteran Randy Buck) in the way of good, inexpensive breakfasts to get you started right.

And with as much to possibly learn and do as there is at this conference, it is imperative to get started right in the morning. From Low Stress Livestock Handling to The Energetics of Herbs, from City Farm: A Model of Urban Agriculture to On Farm Seed Cleaning, from The Cost of Convenience to Creative Season Extension, you will need to get a nutritious breakfast. You

(continued on page 35)
The Natural Farmer Needs You!

The Natural Farmer is the newspaper of the Northeast Organic Farming Association (NOFA). Regular members receive a subscription as part of their dues, and others may subscribe for $10 (in the US or $18 outside the US). It is published four times a year at 411 Sheldon Rd., Barre, MA 01005. The editors are Jack Kittredge and Julie Rawson, but most of the material is either written by members or summarized by us from information people send us.

Upcoming Issue Topics - We plan a year in advance so that folks who want to write on a topic can have a lot of lead time. The next 3 issues will be:

- Fall 2004: The Organic Consumer
- Winter 2004-05: Organic Meat
- Spring 2005: Cucurbits

Moving or missed an issue? The Natural Farmer will not be forwarded by the post office, so you need to make sure your address is up-to-date if you move. You get your subscription to this paper in one of two ways. Direct subscribers who send us $10 are put on our database here. These folks should send address changes to us. Most of you, however, get this paper as a NOFA member benefit for paying your chapter dues. Each quarter every NOFA chapter sends us address labels for their paid members, which we use to mail out the issue. If you moved or didn’t get the paper, your bee is with your state chapter, not us. Every issue we print an updated list of “NOFA Contact People” on the last page, for a handy reference to all the chapter names and addresses.

As a membership paper, we count on you for articles, art and graphics, news and interviews, photos on rural or organic themes, ads, letters, etc. Almost everybody has a special talent or knows someone who does. If you can’t write, find someone who can to interview you. We’d like to keep the paper lively and interesting to members, and we need your help to do it.

We appreciate a submission in any form, but are less likely to make mistakes with something typed than handwritten. To be a real gem, send it via electronic mail (Jack@mhof.net) or enclose a computer disk (Macintosh or PC in Microsoft Word ideally). Also, any graphics, photos, charts, or films you can enclose almost certainly make your submission more readable and informative. If you have any ideas or questions, one of us is usually near the phone - (508) 555-2853, fax (978) 355-4046. The NOFA Interstate Council website is www.nofa.org.

ISSN 1077-2294 copyright 2004, Northeast Organic Farming Association

Dear NOFA,

I just received your 30th Annual Summer Conference of Northeast Organic Farming Association (NOFA) invitation.

Your Saturday night debate will be Ralph Nader vs Ron Paul, Republican Congressman, on the topic of “Wise Governance”.

Does anybody out there think that Al Gore would have扭转s the CIA reports to make a case to abandon essentially Afghanistan and start a second war against Iraq. Due to this second and unnecessary Iraq War, we have not found Bin Laden yet. Sure right now Bush is really looking because he wants him in time for his election, not because he should have gotten him and Mullah Omar right away. It would have been the best lesson to Saddam who did not cooperate with Bin Laden at all - they had separate power interests. Saddam was in a box. We killed many civilians - estimate is 10,000 and caused a lot of ill will and created instead of diminished the terror threat. Connie Rice, civil right lawyer said it best: “The one who is really happy about the US declaring conventional war against an entire state of Iraq (which harbored no terrorists at that time) is Bin Laden.”

I hold Nader responsible for the entire mess of Iraq because he was a spoiler in 2000. We would have Al Gore in office and he would not have done this. We would have made a model state in Afghanistan and created a lot of good will and controlled the violence with enough police and not be growing huge Heroic Poppy fields over there as we are now doing.

Nader should not be invited to speak at all in 2004. You did not invite any Democrat. That is not fair and balanced.

We should impeach Bush for dragging the country into a needless war amongst several crimes and misdemeanors. We cannot impeach him because the House and Senate has a majority of Republicans.

By the way, if Ken Starr had not pushed for a Clinton impeachment and if the journalists had not reported only on Lewinski and of course if Clinton had not acted sexually stupid and immoral then we would have caught Bin Laden in Afghanistan during

Organic Greens

by Jack Kittredge

For many organic farmers in the Northeast, greens are a mainstay. Their short growing period and high value per square foot lets even very small operations grow them profitably. Their ability to withstand cold and grow in low light makes them ideal for times a year at 411 Low cost row covers and hoop houses. Their perishability draws consumers back to the farmers market or CSA every week for continued sales.

In this issue we examine how a number of growers select, plant, transplant, weed, fertilize, irrigate, harvest, transport and market the large variety of greens suitable to raise here. These growers market to restaurants, health food stores and distributors, and to individuals via farmers markets and farm stands. While many of them are larger and more specialized than your typical NOFA farm, their practices can easily be scaled back to one or two beds instead of dozens.

Whether you are a farmer, gardener, or just enjoy learning how the greens you like are tenderly cared for before they reach your plate, we hope this issue is enlightening!

Organic Greens - this is for those offering products or services on a regular basis! You can get real attention with display ads. Send camera ready copy to Dan Rosenberg, PO Box 40, Montague, MA 01351 (413) 863-9063 and enclose a check for the appropriate size.

For season extension via low cost row covers and specialized than your typical NOFA farm, their

The NOFA Exchange - this is a free bulletin board service for NOFA members and TNF subscribers.

Note:

- Half page (7 1/2 tall by 10" wide) $300
- One-quarter page (7 1/2" tall by 1 1/8" wide) $80
- Business card size (1 1/2" tall by 3 1/8" wide) $15

Frequency discounts: if you buy space in several issues you can qualify for substantial discounts off these rates. Pay for two consecutive issues and get 10% off each, pay for 3 and get 20% off, or pay for 4 and get 25% off. An ad in the NOFA Summer Conference Program Book counts as a TNF ad for purposes of this discount.

Display Ads - this is for those offering products or services on a regular basis! You can get real attention with display ads. Send camera ready copy to Dan Rosenberg, PO Box 40, Montague, MA 01351 (413) 863-9063 and enclose a check for the appropriate size.

Discounts: Advertisers are helping support the paper so please support them. We cannot investigate the claims of advertisers, of course, so please exercise due caution when considering any product or service. If you learn of any misrepresentation in one of our ads please inform us and we will take appropriate action. We don’t want ads that mislead.

Sponsorships: Individuals or organizations wishing to sponsor The Natural Farmer may do so with a payment of $200 for one year (4 issues). In return, we will thank the sponsor in a special area of page 3 of each issue, and feature the sponsor’s logo or other small insignia.

Staff Contact for Display Ads or Sponsors: Send display ads or sponsorships with payment to our advertising manager Dan Rosenberg, PO Box 40, Montague, MA 01351. If you have questions, or want to reserve space, contact Dan at (413) 863-9063 or dan@realpickles.com.

The Natural Farmer

Summer, 2004

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Dear Gudron,

Thank you for your letter of March 6 regarding Ralph Nader’s expected appearance at the NOFA Summer Conference this August. Let me give you a little background on the invite. A generous NOFA member came up to me at last year’s conference and offered to cover the costs of inviting two specific individuals to this year’s conference. He suggested that we invite Ralph Nader, a progressive more “government hands off” politician and Ron Paul, a libertarian more “government hands off” politician to debate the topic of “Wise Governance”. We on the NOFA Summer Conference Committee discussed the potential ramifications of such a debate and decided that because NOFA would not be endorsing either man’s views, but merely giving them a forum to express them, that such a debate might be a great opportunity for us as an organization to bring to each of them issues of organic farming and how government should address our concerns. It seemed then that such a debate could be a great opportunity to stir up some ideas and good thinking amongst our membership.

We were quite excited when first Ralph Nader, and then Ron Paul accepted and agreed to attend the conference. Some time later Ralph Nader announced as a candidate for president. So we got our evening promises to put fundamental political questions on the table for NOFA members and non-members alike. 7

I do not believe a balanced presentation is possible without representation from the Democratic Party. Obviously this event has grown quite controversial with Nader’s announcement of his candidacy. But we feel that NOFA members deserve to hear these men despite this new development.

NOFA is not a political organization. In my role as Summer Conference Co-Coordinator it is not appropriate that I debate with you why George Bush was elected president or your many “what ifs” if he hadn’t been elected. The mission of the NOFA Conference is to bring together folks on the topic of our shared passion of organic farming in the North-east. Having Ralph Nader and Ron Paul speak in a debate at the conference is not an endorsement of either of them. It is an attempt to bring more ideas to our membership for them to analyze and respond to in their own lives and situations back home.

I checked for your name in the NOFA/Mass database but it wasn’t there. I am hopeful that you will change your mind and continue the debate within NOFA, but if you do want to quit, you will need to cancel your membership with the state in which you joined.

I do not expect either Mr. Nader or Rep. Paul to make a campaign speech. They know that is not what we invited them for, and that we will have debate rules and a moderator prepared to enforce them. I am sure they will both respect our rules.

We invited both Mr. Nader and Rep. Paul to debate each other because these two men have approaches to governance that, while divergent, are each shared by many NOFA members. We thought a debate that compares and contrasts them would be attractive to anyone seriously considering issues of governance and public policy in these difficult times. We set this up and invited these men months before Mr. Nader announced as an independent candidate.

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Sincerely,  

Julie Rawson,  
NOFA Summer Conference Co-Coordinator

Dear Conference Committee:

Since Ralph Nader is now a presidential candidate, the political rules would indicate that there be a spokesperson from each major party. Since Congressman Paul is a Republican, may I suggest that a Democrat also be invited to participate.

You mention in the lead article of The Natural Farmer (Spring 2004, Vol 2. No. 60) that “the evening promises to put fundamental political dimensions that we haven’t previously dealt with at NOFA conferences in the past. But we have decided to go forward with this debate and hope that its intended purpose of giving folks an opportunity to share their views, hear the views of two national thinkers and politicians who hold minority positions and go home richer and more educated will be accomplished.

Sincerely,

Diana (Danny) Rivet

NOFA Summer Conference Co-Coordinator

Dear Danny,

Thanks for your thoughts on Ralph Nader’s participation in the debate this summer. I must respectfully disagree with your conclusion, however, that we need to invite a third person, a Democrat. For one, Rep. Paul is hardly a spokesperson for the Republican Party. He is, if anything, noted for his libertarian views. For another, such a rule would also require us to invite representatives of numerous third parties into the debate, totally destroying its purpose.

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Sincerely,  

Jack Kittredge,  
NOFA Summer Conference Co-Coordinator

Sincerely,
Blow Your Own Horn!

3 Farm Acres for Lease in Acton, MA. Historically farmed South Acton property (w/ owner’s residence) - currently maintained as open meadow. Bounded by Ft Pond Brook for irrigation, good road frontage. Owner has local and state permit approvals. Interested in long term relationship. Suitable for CSA, fruit orchard, berries, annuals or perennial crops, wildflowers, hay, or grazing. Located close to Route 2, South Acton MBTA Commuter Rail Stop, and Route-495 Contact: Hadley Farm - 978 263-4775.

NOFA Exchange

Small dairy farm in Jeffersonville, VT seeking a self-motivated individual for a management/hands-on position. Responsibilities include repair and maintenance of all machinery, fieldwork, farm construction and equipment operation, some carpentry and chainsaw work. Valid driver’s license is necessary. Individual must be a team player who possesses good planning and organizing skills. Accountability for performance is required. Competitive salary, uniforms and perks available for the right person. Please call 802-644-3138 to set up an interview.

Lifetime Farm Opportunity. 35-acre founding NOFA farm. Mixed farm plus 210 member CSA. Available to experienced farmer(s) through work-in-situation with eventual sale. Two residences (one for mentoring/retiring farmers), large barn, workshop, sheds, greenhouses, apprentice cabins, a commercial-scale bakery, and extensive improvements. Land being transferred to a community land trust to keep the farm affordable in perpetuity and assure continued agricultural (organic or biodynamic) use. Permanent and secure tenure through 99-year renewable & inheritable lease on the land. Please reply with letter outlining experience and vocational goals. Sam & Elizabeth Smith, Caretaker Farm, 1210 Hancock Rd, Williamstown, MA 01267. Sam@caretakerfarm.org.

Intern Positions: Wild Roots Farm is looking for 4 interns with a passion for learning experientially and strong interest in sustainable agriculture and off the grid living. Work and learning involves complete production involvement for a 100+ member CSA (plus wholesale and garlic); marketing, spring greenhouse work, seeding, transplanting, weed control and harvest. Learn about rare breeds, Icelandic sheep and Highland cows. Use a broadaxe, adz and chisel while building a log cabin using alternative energy. Can, dry, root cellar, freeze and wild craft. Intern cabins and stipend. Amy and Wes Gillingham, 669 Cattail Road, Livingston Manor, NY 12758 845-439-4799.

For Sale - 22 organic acres, beautiful farmhouse, large pond, small established apple orchard, and assorted fruit trees and bushes; extensive flower gardens, large organic vegetable and herb garden, conveniently located to Middlebury, Vermont. Please call (802) 352-4416.

Certified 27 acre organic farm is seeking a full-time year round farmer/educator. Qualifications: 2 to 4 year degree in the field and/or equivalent experience in agriculture, with carpentry and mechanic skills, who loves teaching and working with people. Computer skills a plus. Excellent benefits, salary starting at 30K, no housing. Position available June 1. Send resume and cover letter to NCORF, Lynda Simkins, 117 Eliot Street, Natick, MA 01760 or e-mail us at ncorganic@aol.com. I am retired and am looking for a small house with an acre or two of land to rent, with an option to buy, or to buy outright. The ideal place would be 2 1/4 hours from White Plains, NY. I use the library’s computer and can be reached at petvarl45@yahoo. My telephone number is 914-698-2339.

Many Hands Organic Farm in Barre, Massachusetts still has shares available for our 2004 CSA season. Starting June 21 and running for 20 weeks, we offer a wonderful array of vegetables, small fruits, and flowers. Shares cost $450. See our website at www.mhof.net or call us at (978) 355-2853. We also raise organic free range pigs and chickens and are taking orders for pork and chicken for 2004. Pre-order your organic frozen lard (available late October) to avoid disappointment.
It is ethical to test pesticides and pollutants on human volunteers in order to determine whether environmental safety standards can be lowered, a top panel of scientists said in February in an opinion that is expected to strongly influence government policy. Many scientists and ethicists have argued that such research is never justified, and yesterday’s unprecedented verdict by the National Academy of Sciences took environmentalists by surprise. Currently, to determine what level of a toxin is safe for human exposure, regulators at the EPA first determine what dose is toxic to animals. Regulators divide that dose by 10, because humans may react more sensitively than animals — called the “inter-species safety factor.” Because some people are more sensitive than others, regulators lower the potentially toxic dose by another factor of 10. Finally, to protect children and fetuses, federal Environmental Protection Agency banned them from indoor use in stages, from 2000 to 2002, while both pesticides are still used in agriculture and are commonly found on produce.

The ranking of the world’s richest people as estimated by Forbes magazine is given below. Listings include rank, name, home country or state, age where known, wealth in billions of dollars and source of the money.

1. William Gates III, U.S., 48, $46.6, Microsoft
2. Warren Buffett, U.S., 73, $42.9, Berkshire Hathaway
3. Karl Albrecht, Germany, 84, $23, supermarkets
4. Prince Alwaleed Bin Talal Alsaud, Saudi Arabia, 47, $21.5, investments
5. Paul Allen, U.S., 51, $21, Microsoft, investments

A senior scientist at the Department of Agriculture says its scientific experts have been pressured by top officials to approve products for Americans to eat before their safety can be confirmed. In particular, the scientist said, approval to resume importing Canadian beef was given last August before a study confirming that it was safe. Canadian beef was banned after mad cow disease was found in the United States in February in an unprecedented verdict by the Nebraska Farmers Union (NEFU) has declared victory in the defeat of a bill introduced on behalf of Governor Johanns to weaken the
A study that links lawn chemicals to bladder cancer in Scottish terriers could help shed light on whether they cause cancer in some people. Purdue University researchers surveyed 83 owners of Scottish terriers whose pets had recently been diagnosed with bladder cancer for their report, published in the Journal of the American Veterinary Medicine Association. “The risk ... was found to be between four and seven times more likely in ex- posed animals,” said Larry Glickman, professor of epidemiology and environmental medicine in Purdue’s School of Veterinary Medicine. “We hope to determine which of the many chemicals in lawn treatments are responsible.” The National Cancer Institute says about 38,000 men and 15,000 women are diagnosed with bladder cancer each year. The American Farm Bureau Federation’s most recent quarterly survey found the price for an assortment of groceries — including cheese, eggs, chicken, bacon, apples, potatoes and vegetable oil — jumped six percent from the fourth quarter and ten percent from the same period a year ago. “We have not traditionally seen spikes of that magnitude,” said Mace Thornton, a spokesman for the Farm Bureau. The U.S. Department of Agriculture’s index of prices received by farmers, for instance, hit the highest level in March since record-keeping began in 1910. “I don’t think we expect anything, as we look at 2004, to be down,” Keith Collins, the department’s chief economist, said in an interview. Higher fuel costs are also contributing, as manufacturers pass on increased processing and transportation costs. source: Agribusiness Examiner #344

Recently, a congressional committee released emails between the United States and Europe about the future of scientific research, technology innovation and entrepreneurial risk-taking. At issue is a pro- posed EU directive that would force companies to prove chemical products introduced into the marketplace are safe before being granted permis- sion to market them. Existing laws allow most chemical-based products to be introduced without prior assurances by the company of their safety. The proposal is that 99% of the chemical sold in Europe have not passed through any environmental and health testing review process. Under the pro- posed EU standards, companies would be required to register and test more than 30,000 chemicals at an estimated cost of nearly 6bn Euros. The American chemical industry is furious. The US says the EU chemical regulations threaten the export of over $20bn in chemicals the US sells to Europe each year. At issue is a huge cost to farmers: EU chemical-based products would cost more than 15 years experience with the agency and has been given awards and accolades for being a superior employee during that time. “They’re bad — I’m telling you, they’re bad,” he added. source: Agribusiness Examiner April 26, 2004, Issue #341

Prices have been rising sharply in recent months for all kinds of basics, including milk, meat, eggs, oil and produce, giving supermarket shoppers their first taste of serious food price inflation in years. At the retail level, the American Farm Bureau Federation’s most recent quarterly survey found the price for an assortment of groceries — including cheese, eggs, chicken, bacon, apples, potatoes and vegetable oil — jumped six percent from the fourth quarter and ten percent from the same period a year ago. “We have not traditionally seen spikes of that magnitude,” said Mace Thornton, a spokesman for the Farm Bureau. The U.S. Department of Agriculture’s index of prices received by farmers, for instance, hit the highest level in March since record-keeping began in 1910. “I don’t think we expect anything, as we look at 2004, to be down,” said in an interview. Higher fuel costs are also contributing, as manufacturers pass on increased processing and transportation costs. source: Agribusiness Examiner #344

According to a study that links lawn chemicals to bladder cancer in Scottish terriers, certain chemicals may increase the risk of bladder cancer in some people. The study, published in the Journal of the American Veterinary Medicine Association, found that terriers were between four and seven times more likely to develop bladder cancer than dogs not exposed to lawn chemicals. The study was conducted by researchers at Purdue University, who surveyed 83 owners of Scottish terriers with bladder cancer. The researchers hope to determine which specific chemicals in lawn treatments are responsible for the increased risk.

The study findings suggest that certain lawn chemicals may pose a risk to human health. However, further research is needed to confirm these findings and to determine the extent of the risk. Until more is known, it is advisable to use synthetic lawn fertilizers that are less likely to cause cancer in humans and animals. It is also recommended to use water-based rather than chemical-based lawn treatments and to avoid using lawn chemicals in areas where other animals live.

The study's findings are cause for concern, especially for pet owners who use lawn chemicals. It is important for pet owners to be aware of the potential risks associated with lawn chemicals and to take steps to reduce their exposure to these substances. This may include using alternative lawn care methods, such as natural fertilizers, and avoiding the use of lawn chemicals in areas where other animals live.

The study's findings highlight the importance of conducting thorough research before using lawn chemicals, especially in areas where other animals live. It is important to consider the potential risks associated with lawn chemicals and to use them judiciously to minimize any harm that may be caused to humans and animals.
GMO Contamination Hurting Organic Farmers

The Organic Farming Research Foundation has found that organic growers are incurring a variety of direct financial and operational impacts from genetically engineered crops. According to a national survey of organic growers conducted by the foundation, 17% of respondents (1034 farmers responded) said they had already conducted GMO testing on seed or other inputs to see if their operation was endangered. Of those, 11% had results showing that contamination had occurred. Also, 24% of respondents said they had discussed GMOs with neighbors, 19% said they had increased buffer areas, 18% had discontinued use of certain inputs, 15% have adjusted timing of crop planting, 13% have altered cropping patterns, and 9% have changed cropping locations. About 30% characterized their farm’s risk of GMO contamination as high or very high, with 48% of them saying their primary concern was contaminated seed stock, 42% identifying pollen drift, and 30% naming farm inputs. source: OFRF Information Bulletin #13

Citizen Opposition on the Increase

Monsanto development of Roundup Ready wheat has been deferred, the company announced on May 10. Carl Casale, executive vice president of Monsanto, stated that "we recognize the business priorities." The Washington Post describes Monsanto’s decision to scrap GM wheat as “the biggest defeat yet for advocates of agricultural biotechnology — and a victory for skeptics who have been genetically engineered crops or animals. The biotechnology industry may file a lawsuit trying to overturn the new law. The industry argued that biotechnology regulation should be left to the federal government, otherwise biotech companies will have to wade through a hodgepodge of local laws. The industry spent more than $500,000 to defeat the measure in a county of 47,000 registered voters. “They had the money, we had the people," said Els Cooperrider, who led the local ballot measure. Led by organic vintners and farmers, backers of the ban raised and spent close to $100,000. source: Associated Press Wed, Mar. 03, 2004

Vermont’s governor signed the nation’s first GMO labeling law on April 26. The law requires manufacturers of genetically modified seeds to label and register their products. Under the bill, seeds that are genetically altered or engineered must be labeled as such after Oct. 1. Seed manufacturers must report their total sales in the state to the Secretary of Agriculture every Jan. 15. source: Vermont Press Bureau, 4/27/04

California environmentalists are hoping to place an initiative on the November ballot that would prohibit GM crops from being grown in San Luis Obispo County. The ballot measure was prompted by a proposal from biotech firm Ventra Bioscience to grow rice engineered with human genetic material in the county. source: http://www.gmwatch.org/archive2.asp?arcid=3408

US grain millers are seeking biotech controls. The North American Millers Association (NAMA) sent a letter to the USDA’s Animal and Plant Health Inspection Service warning that the nation’s food supply is at risk of contamination from crops that have been genetically modified for pharmaceutical or industrial uses but not approved for use in food. In its letter, NAMA asked APHIS to prohibit food crops, especially corn, from being used in plant-made pharmaceutical products. It also seeks to expand grain segregation systems, create valid testing to detect problem plants, and mandate liability insurance coverage to indemnify food industry players from costs incurred if products are contaminated with GMO material. NAMA has significant concern that current confinement systems for controlling the seed, pollen and output of plant-made pharmaceuticals and industrial products cannot control 100 percent of the genetic material ... or prevent deliberate evasion of the security protocol. NAMA represents 45 companies, including General Mills Inc., PepsiCo. Quaker Oats, and ConAgra Foods Inc., which make food products from corn, wheat, oats and other grains. source: Crop Decisions.com, Mar 25, 2004

Health Risks from GMOs Cited

The French newspaper Le Monde reported on April 22, 2004 the existence of secret documents revealing health impacts of the GM maize which were described as “very disturbing” by scientists of the French commission for genetic engineering (CBG). The impacts included kidney malformations and...
Junk DNA reveals a vital role. A new study published in Nature reveals that what was thought to be genetic rubbish or “junk” DNA in the genome plays a “vital role” in controlling genetic activity. David Haussler of the University of California, Santa Cruz, said the finding was so unexpected “It absolutely knocked me off my chair.” Geneticist Kerstin Lindblad-Toh, of the Broad Institute in Cambridge, Massachusetts, says: “This is the tip of the iceberg” in terms of the breadth of our ignorance about how genes really work. source: http://www.gmwatch.org/archive2.asp?arcid=3442

GMO Risks to the Environment Raised

Countamination found in GMO refuges. According to a report published in the May 10 online edition of PNAS, US Environmental Protection Agency (EPA) guidelines on the planting of “refuges” - areas in which a non-transgenic crop is grown to allow survival of susceptible insects adjacent to GM crops — could actually increase the risk of pests acquiring resistance to the GM crops. If Bt crops were grown wall-to-wall, everyone would expect resistance in insects to evolve overnight. The EPA rules say that if you grow Bt corn, you must plant a refuge of non-Bt corn for at least 20 percent of your crop. Caterpillar that can provide a refuge of Bt corn is rare at first and only a few resistant adult moths emerge from Bt corn fields. But refuges of non-Bt corn produce lots of susceptible moths. So, the idea is that the uncommon resistant moth will mate with the more abundant susceptible moths. Their hybrid progeny would be killed by feeding on Bt corn. Thus, Bt resistance would not increase quickly. But non-Bt corn refuges must be close enough to Bt corn so Bt-resistant moths will almost certainly mate with only with Bt-susceptible moths from refuges. Until now, researchers didn’t consider that the Bt and non-Bt corn refuges were close enough to mate, potentially reducing the amount of non-Bt corn in the refuge. The study found low to moderate levels of Bt toxin were detectable in ears of non-transgenic maize growing up to 31 meters away from the GM crop, with levels decreasing with distance. According to Charles F. Chilcuit author of the report, “No one really went into the idea of what will happen if you plant the non-Bt refuge too close to the Bt crop. And I’m not sure what that is.” source: http://www.pnas.org/cgi/content/abstract/0400546101

Foreign Opposition Mounts

Venezuela’s President Hugo Chavez Frias announced in April that the cultivation of GM crops will be prohibited on Venezuelan soil, establishing the most sweeping restriction on transgenic crops in the Western Hemisphere. Before a recent international gathering of supporters in Caracas, President Chavez admonished GM crops as contrary to the interests and needs of the nation’s farmers and farm workers. He emphasized the importance of food sovereignty and security - required by the Venezuelan Constitution - as the basis of his decision. Instead of allowing small farmers to grow transgenic crops, these fields will be used to plant yuca (an indigenous crop), Chavez explained. He also announced the creation of a large seed bank facility to maintain indigenous seeds for peasants’ movements around the world. source: http://www.gmwatch.org/archive2.asp?arcid=3307

Indian GM cotton failure routes BJP. The toppling of India’s ruling pro-GMO Bharatiya Janata Party in May was in part caused by last year’s massive failure of Monsanto’s Bt cotton. According to IPS news, many mass suicides by farmers, especially in the state of Andhra Pradesh, were cotton growers who had experimented disasterously with genetically modified seeds supplied by large multinationals. In the first few months the farmers were delighted with the crop since it grew fast and looked healthy. Most satisfying was that the leaves were not being eaten by worms. Unfortunately, in the fourth month, the Bt cotton stopped growing and producing new buds while the existing cotton bolls did not get any bigger. The crop then wilted and dried up at the peak bolling stage. This was accompanied by leaf-dropping and shedding. There was also bursting of immature bolls and heavy infestation of bollworms. In the state of Andhra Pradesh 79% of the crop was lost. In Madhya Pradesh 100% of the crop was lost. In Maharashtra, the Bt crop has failed across 30,000 hectares. In Gujarat, it was completely destroyed by the bollworm. Congress party workers used the issue to blunt the Bharatiya Janata Party’s ‘India Shining’ motto during the election. source: http://www.gmwatch.org/archive2.asp?arcid=3464

GM Maize Sunk by Welsh Assembly. An insurgent movement of Labor members in the Welsh Assembly forced the Welsh Environment Minister in March to agree that he would not add a GMO maize variety to the National Seeds List without the authorization of the Assembly through a free vote. Opponents agree that there is no chance the that the current Assembly will vote for the listing. The Minister has a UK veto on the listing of GM seeds, so failing such a vote the maize cannot be added to the Seeds Register and thus cannot be grown anywhere in the UK. Shortly after the announcement Bayer CropScience announced it was discontinuing its efforts to grow genetically modified maize in England. source: Independent, April 4, 2004

Federalism at Work Down Under? Although the Australian government has not approved GM crops, state governments have the power to ban such crops for marketing purposes. On March 23 Victoria state extended a moratorium on GM crops until 2008, shortly after Western Australia and Tasmania both announced plans for outright bans. Victorian Premier Steve Bracks said the state wanted to protect its “clean and green” image and ensure exports remained sound. South Australia and Western Australia have also been reported. source: http://www.gmwatch.org/archive2.asp?arcid=3138

In the West Kimberly region, Aborigine farmers have turned down a proposed GMO cotton industry for Broome, and told the West Australian Angela faces severe food shortages but has aligned itself with four southern African nations - Malawi, Mozambique, Zambia and Zimbabwe - which have banned imports of GM food. Gilberto Buta Littucuta, Angola’s minister of agriculture, said the food was rejected “because so far we don’t know for sure what impact these products might have on either human or animal health.” Zambia is now exporting its cotton for processing to Angola source: http://www.gmwatch.org/archive2.asp?arcid=3113

Is the Future of GMOs Growing Dim? According to an article in Wired magazine, researchers are beginning to understand plants so precisely that they no longer need transgenics to achieve traits like increased yield resistance, durability, or increased nutritional value. Over the past decade, scientists have discovered that our crops are chock-full of dormant characteristics. Rather than insert, say, a bacteria gene to ward off pests, it’s often a beneficial characteristic that’s already there. The result: Smart breeding holds the promise of precisely that they no longer need transgenics to achieve traits like increased yield resistance, durability, or increased nutritional value. Over the past decade, scientists have discovered that our crops are chock-full of dormant characteristics. Rather than insert, say, a bacteria gene to ward off pests, it’s often a beneficial characteristic that’s already there. The result: Smart breeding holds the promise of precisely that they no longer need transgenics to achieve traits like increased yield resistance, durability, or increased nutritional value. Over the past decade, scientists have discovered that our crops are chock-full of dormant characteristics. Rather than insert, say, a bacteria gene to ward off pests, it’s often a beneficial characteristic that’s already there. The result: Smart breeding holds the promise of
Mad Cow Disease News

The GMO Connection

According to John Stauber, author of the 1997 book Mad Cow USA, bovine growth hormone and mad cow disease are linked. The link was explained to him in 1992 by a retired Eli Lilly drug researcher who worked with the hormone. There, he learned that if an animal is injected with BGH, it will have to feed them fat and protein supplements, because BGH takes a high toll as it helps milk production. Likely to be used, he said, would be "the cheapest form" of fat and protein: slaughterhouse waste. And this waste, the researcher said, would inevitably include parts of animals infected with mad cow disease - and the disease would be passed on. source: http://www.gmwatch.org/archive2.asp?arcid=3413

The Feed

Canadian officials have traced to two mills the federal regulation and touts the virtues of voluntary efforts to deal with all manner of national problems. So it was quite a shock when heavy-handed regulators at the U.S. Agriculture Department forced a private company test all the cattle it slaughters for mad cow disease…The stated reason for the rejection was that the rapid tests are licensed only for surveillance, not to guarantee consumer safety. But critics contend the department is primarily trying to protect the beef industry from pressure to test all 35 million or so cattle slaughtered in this country annually. Such blanket testing would raise production costs, and discovery of a single case of mad cow disease, or even a false positive, might cause American beef sales to plummet…If the cattle industry has the clout to sway a government department on this kind of issue, it probably has the clout to influence federal officials when it comes to questions much closer to the interests of American consumers.”

The USDA Enforcement

On March 3 the USDA Inspector General, Phyllis K. Fong, announced that the government has begun a criminal investigation into whether documents were falsified in the Washington State case of mad cow disease. According to a New York Times report, the official records of the veterinarian at the slaughterhouse, released by the Agriculture Department in January, said the animal, a 5-year-old bull, "was alert,” meaning that it was conscious but down on its sternum, or chest, before it was killed. But three witnesses — the worker who killed the animal, the trucker who hauled it to the slaughterhouse, and the owner of the slaughterhouse — have all said publicly that it was walking. Dave Louthan, the slaughterer at Vern’s, said in a February interview that the cow walked to the edge of the truck when he killed it with a “knocking gun” to mercifully end its suffering. "If you tell them the cow is under 30 months (old), they won’t bother with it.” The agency’s position is cows under 30 months are unlikely to test positive, even if infected, because the incubation period is several years. Yet, more than 20 cows under this age have tested positive worldwide, including one as young as 20 months in the United Kingdom. source: UPI, 5/8/04

The Regulations

The U.S. beef industry is pushing back against the federal ban on lame or “downer” cattle that was put into effect in December to protect humans from mad cow disease. The main platform for easing the government’s new restrictions is a bill co-sponsored by Rep. Collin Peterson, Dem.-Minnesota, and Rep. Jim Oberstar, Dem.-Minnesota, that would exclude from the ban animals that suffered broken legs and other ailments unrelated to the disease. Peterson and his supporters say the current ban is costing farmers millions of dollars while doing nothing to protect consumers. Faced with a minimum of $75 million in annual losses from the new USDA policy, U.S. cattle ranchers have started to argue that there’s no reason to lump nonbacterial cattle together, particularly since many of them have broken legs or hooves. “We don’t support animals that are unfit for human consumption on our own farm,” said Bryan Dierlam, the cattlemen association’s director of legislative affairs. “But an injury on the farm should not be a litmus test for that.” source: Sacramento Bee, April 19, 2004

The Testing

Ask the people around you if they believe the government is adequately protected against mad cow disease. At a time when the department should be bending over backwards to reassure consumers, it keeps taking actions that suggest more concern with the financial interests of the beef industry than with protecting public health...Now the department has been caught refusing to test a cow that collapsed at a slaughterhouse in Texas, thus such a collapse could be an indication of mad cow disease. The department’s own inspectors at the site wanted to take a brain sample for testing but were overruled by their regional office…There is no evidence yet that mad cow disease is spreading in the beef industry, but it is controlled by it. It seeks not to protect the product, but to move it…In the long run, the move helps no part of the American food industry, which should never be insulated from the truth that the customer is always right.” source: Salt Lake City Tribune editorial, April 20

The Editors

“The Bush administration generally frowns on federal regulation and touts the virtues of voluntary efforts to deal with all manner of national problems. So it was quite a shock when heavy-handed regulators at the U.S. Agriculture Department forced a private company test all the cattle it slaughters for mad cow disease…The stated reason for the rejection was that the rapid tests are licensed only for surveillance, not to guarantee consumer safety. But critics contend the department is primarily trying to protect the beef industry from pressure to test all 35 million or so cattle slaughtered in this country annually. Such blanket testing would raise production costs, and discovery of a single case of mad cow disease, or even a false positive, might cause American beef sales to plummet…If the cattle industry has the clout to sway a government department on this kind of issue, it probably has the clout to influence federal officials when it comes to questions much closer to the interests of American consumers.”

“Any wisp of hope that the United States Department of Agriculture exists to protect consumers from unsafe food — and it has long been no more than a wisp — totally disintegrated earlier this month…The official reason for refusing Creekstone Farms permission to use the quick-turnaround tests developed by the Japanese government was that the tests aren't accurate enough to ensure total safety…An infinitely more likely reason for the USDA action is that, as independent cattlemen and boutique meat processors say, the tests would force the beef industry to make downers — the meat industry in America, but is controlled by it. It seeks not to protect the product, but to move it…In the long run, the move helps no part of the American food industry, which should never be insulated from the truth that the customer is always right.” source: Salt Lake City Tribune editorial, April 20
Organic Industry News

NOP Changing the Meaning of Organic?

by Liana Hoodes

In the past several weeks, the USDA National Organic Program (NOP) has placed a series of “Guidances” and “Directives” on its website that undermine organic integrity and even their own standards. This was done on the eve of the National Organic Standards Board (NOSB) meeting without any prior notification or review by the NOSB.

While the substance of the web postings is not good, the process (not) used was worse, and it is not clear how or why the NOP has the ability to make instant decisions such as these. If nothing else, these “Guidances” or “Directives” must be repealed, and at least reviewed by the NOSB prior to any further action.

NOSB and NOP Update

In mid-April, NOP put out 3 “guidelines” and a “directive” on their website. [At the Apr. 28-30 NOSB meeting, NOP informed the audience that they are all actually “directives”; however there is virtually no information about the definition of either or the differences between them. As of May 9, there has been no change in their status as “Guidance” on the website]. These pronouncements were posted on the web (go to (http://www.ams.usda.gov/nop then Today’s News for April 14, and April 23 [see below for more detail]) with no prior notice or review by the National Organic Standards Board (NOSB), as required by law.

Scope Guidance: There will be noNOP organic labeling of: personal care products, health care products, fertilizers, aquatic animals or pet foods. However, a non-NOP organic label (with no standards and no verification) may be used on any of these products. This will undermine the organic label, especially in fish and pet foods, where NOP compliance has been possible, and NOP labels have been used or were in the last stages of development. This scope directly contradicts the scope guidance promulgated by the agency two years ago (no longer available to review), and therefore should have had full notice and comment review.

Pesticide Use: Allows use of pesticides with EPA List 2 and 3 inerts if after “reasonable effort (contacting the manufacturer, EPA, and other “USDA accredited certifying agents”) [ACA’s or producers] “are unable to ascertain whether inerts in a pesticide are allowed under the NOP!” Not only does this policy put the burden of proof on farmers, certifiers, and consumers, who may not be legally able to find out the specific ingredients of a pesticide, but it encourages pesticide producers to continue (in fact, increase) their policies of not disclosing their ingredients. Under this directive, as long as a manufacturer declines to voluntarily disclose non-compliant inert ingredients, its product would be allowed in organic production. Once again, this is a clear violation of all understandings of organic systems and consumer confidence, and should have been vetted in the public through NOSB, with notice and comment.

During the NOSB meeting (April 28-30), all NOP staff (Rick Matthews, Barbara Robinson, and Keith Jones) noted several times that these were clarifications of existing law and regulation, and as such, would not be open to any public comment period. Essentially, these guidelines are effective immediately.

Interestingly, during an OTA visit with Ken Clayton (AMS Associate Administrator) following the promulgation of the Scope Guidance, he noted that this document was open to public comment, and had no specific timeline for implementation.

Many NOSB members expressed outrage at these NOP policy statements; both at their content, and at the process which kept them out of the loop. In order to show a united concern, the Board passed a resolution which expressed opposition to the lack of notice and consultation with the NOSB, and requested that the NOSB Policy Committee review the substance of the directives for a more detailed public comment regarding these items at a later date.

The National Campaign for Sustainable Agriculture Organic Committee presented comments at the meeting critical of the NOP Guidelines/Directives, and the process used. The written comments (completed before the promulgation of the Pesticide Use Directive) are available on the NCSCA website, or by request.

There was extensive public comment by many groups and individuals — all opposed to the recent actions of the NOP.

[Since their first use of Guidelines, Directives, or “Q&As” the Department has been unclear, erratic, and altogether non-transparent about what these documents actually mean for implementation of the program by Accredited Certifying Agents (ACAs), producers, and consumers. Are they to be followed to the letter, or are they just suggestions? Which will be considered legal parameters (inadherence would be a violation), and which are merely recommendations? This lack of clarity reached new heights during the NOSB meetings, and subsequent OTA Trade Show conference sessions run by the NOP where they even suggested different Guidance levels 1 and 2. As yet, there is no official standing for any of them].

During the OTA All Things Organic Trade Show on Monday May 3rd, immediately following the NOSB meetings, many meetings were held to figure out possible responses. In addition, many possible responses have been suggested throughout the community.

One thing that we will be doing shortly is sponsoring a letter of organizational concern to Secretary Ann Veneman. If your group is interested in signing it, go to www.sustainableagriculture.net and click on “organic issue”.

Accredited Certifiers Association Forms

The Accredited Certifiers Association (ACA) is a new organization that was formed with the goal of providing a forum and voice for the diverse certification agencies.

The purpose of the ACA is to provide a forum for USDA-accredited certifiers to:

- Develop uniform criteria for certifying operations under the NOP
- Provide training on all aspects of the NOP
- Provide a forum for discussing issues impacting organic certification
- Develop strategies for reform of laws affecting organic certification
- Facilitate communication and sharing of information among organic certification agencies.

We are planning an organizational meeting in Washington, DC, in conjunction with the Natural Products Expo East this October. We look forward to your participation!

Membership is open to all USDA-accredited certifiers, and we actively seek your support and suggestions.

Accredited Certifiers Association

Thanks for your support!

Baystate Organic Certifiers (MIC), Don Franzcyk
Midwest Organic Services Association (MOSA),
David Engel
MOFGA Certification Services, LLC, Mary Yurlina
Northeast Organic Farming Association-NJ (NOFA- NJ), Erich Bremer,
NOFA-NY Certified Organic, LLC, Lisa Engelbert and Carol King
Oregon Tilth Certified Organic (OTCO), Pete Gonzalves
Organic Crop Improvement Association, W1 Chapter #1 (OCIA), Dale Johnson
Pennsylvania Certified Organic (PCO), Leslie Zuck
Quality Certification Services (QCS), Marty Mesh
Stellar Certification Services (SCS), Anne Menendez

Thanks for your support!

Vermont Organic Farmers (VOF), John Cleary

Note: At the All Things Organic OTA trade show, the OTA Organic Certifiers Council (OCC) voted to dissolve and fully support the efforts of the new Accredited Certifier Association.
Last January and February, in fact year-round, we harvested more than 400 pounds of greens per week from a 3200 square foot growing facility. Five layers of shelving and fluorescent lights are installed in a 25' by 25' wooden insulated building. All our cash crops, wheatgrass, sunflower greens, radish greens, and snow pea greens are grown on trays of soil. Black River Produce, a local refrigerated trucker delivers to most of our retailers in Vermont and to the distributors in Boston. Everything else is shipped via UPS with ice gel packs.

Land and Composting

Our land (soil) is in 28 compost boxes that line the walls of the 92 by 28 foot greenhouse. When fully composted, soil is shoveled into trays that have been placed on a sheet of plywood supported by saw horses. When the soil is clumpy or slightly wet we use an electric roto tiller to break up the clumps. Fortunately Mantis is selling an electric tiller again.

Electric tillers were on the market for only two years and then for 5 years you could only buy gasoline powered tillers which can’t be used indoors because of the fumes. We kept the one electric tiller alive by replacing handles, switches, and brushes in the motor. Mantis would not sell a complete electric unit but they had all the parts so we slowly bought all the parts to assemble a second unit to build a little redundancy into our operations. After the soil in the trays is spread smooth and rolled with a piece of pvc pipe, the trays are then moved by hand to another plywood table for planting. Soaked and slightly sprouted seed is spread on the trays which are then stacked (about 15 trays high) on 4 wheel dollies. After a 2 or 3 day germination, the trays are ready to be moved to the growing shelves. In less than 8 days from the time we soaked the seed, the trays are gophered to the harvest table to be harvested with single edge razor blades into bus tubs for bagging into one pound or 3 ounce reclosable bags. The guys load up the trolley with the harvested trays and move them to the greenhouse. This root stubble is broken up and layered into the compost boxes where the red wiggler worms will digest the organic matter in less than two months time. To aid ventilation in the boxes we insert drainage pipe and also drill holes into the sides of the boxes.

The Best Fertilizer is the Farmer’s Footsteps

I have this concern that what we do is not considered farming. But we grow our crops on soil that is rich with worms, we compost plant residues, and must make sure plants have sufficient water and light.

The best fertilizer is the farmer’s footsteps. In our greenhouse environment. I encourage the harvesters to look at what they are harvesting.

Are the leaves dry? Are the stems one color all the way down to soil level or do they change color? Any differences from the normal please let me know. Let’s try to find out why. How is the soil coming out of the boxes? Is it fully composted and crumbly or is it wet with clumps of roots still visible? The hardest time of the year for our soil bank is late January through early April. The greenhouse has been colder than normal and digesting microorganisms slow down in the cold. That is why we add encouragement to the soil environment by adding a compost bio-activator during this time. It contains microorganisms plus food for them to keep thriving. This food and the life cycle of the soil life add to our fertility. Even though we take off the top growth, we are continually cover cropping our soil. Every year we recycle a portion of our soil banks to permanent location on top of our outdoor plots. We replace the lost volume by slowly mixing in washed masonry sand when we are composting the root stubble from harvested trays. It is best to put in any amendments before the composting process. That way the new amendment has a chance to be more fully incorporated into the overall soil life. A healthy soil life yields produce with better flavor and keeping quality. Since we are continually cover cropping the soil, there is a tendency to build up organic matter which holds moisture eventually...
interfering with proper drainage. Sand helps our soil to drain especially during the cold winter months. For a few weeks each winter, usually late March, the soil is so wet coming out of the boxes and into the trays for planting, that the planters do not need to even water the trays. But for the rest of the year we usually water the soil filled trays just before spreading the seed. There is also an exception to this. Two of our crops that like the cold, wheat and snow peas, have a tendency to mold or rot during germination in the warmest months of the year. So at that time we don’t water the trays before planting.

Employees

We are definitely a sexist operation. The men do the heavier work. They move the trays to the shelves and then down again to the harvest table when ready. We call that gophering. After the women harvesters cut all the trays on the table they will usually yell into the greenhouse to the guys, “We need trays!” Men rarely harvest. Women have better manual dexterity (and speed.)

And shoveling soil from the compost boxes into the trays is something men are better at. The men like to help spread seed on trays when planting but I don’t like men doing women’s work.

Of course when the guys are way behind on trays, the women here are strong enough to pitch in and help. Men here rarely do bagging (taking the harvested greens from the tubs and stuffing and closing 3 ounce and one pound bags) Women are much faster.
The Numbers

I always like it when other growers reveal some of their numbers so here are a few of mine:

About 55% of what we grow is sold to distributors, 8% goes to restaurants, 10% to health food stores, and 27% is shipped directly to individuals who usually find us through our website (www.gourmetgreens.com). 24% of payment is made by credit card. We don’t have a store but if people call ahead for an appointment we sell directly out of the greenhouse. Here in Vermont we found restaurant sales to be very unpredictable so we let distributors handle the ebb and flow of sales. Sure we get less money for produce sold to distributors but it is much easier to package and bag up a big order and get that thousand dollar check hopefully in less than 30 days. Fortunately our distributors are good payers. Here is what the income side of our profit and loss statement looks like.

Our town is starting a farmer’s market this year and we have signed up for a booth. This will be the first time in our 23 year history that we have sold anything at a farmer’s market. We may sell the greens in unharvested miniature flats and also offer seeds, trays, and soil for people who wish to grow their own. We will also offer wheatgrass planted in baskets and pottery for use as table decorations. A grower we know from North Carolina is doing quite well with this. Many home design magazines show pictures of wheatgrass used as decoration.

GOURMET GREENS
Profit & Loss

January through December 2003

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A longer range goal is to sell the business, 3 bedroom ranch house, and 4 acres of land to someone who wants to live and farm at the same location.
Rosaly’s Farm Stand

by Jack Kittredge

The Granite State is noted for stony soils, harsh climates, and flinty-eyed realists. Not, you would think, an area likely easily to sprout organic farms. Yet New Hampshire’s southern tier, just a few miles over the line from Massachusetts, is home to some outstanding ones. One of these, Rosaly Bass’s operation in Peterborough, is the second largest organic farm in the state (after Eero Ruuttila’s in Litchfield.)

Rosaly grew up on a Massachusetts farm and liked working with animals and equipment. But she became a teacher and, 30 years ago, got married to an older man from one of the leading families in southern New Hampshire. Her husband is a lawyer, for a time was the area’s Congressman (his son now holds the seat), and owned a farm on which he grew up. The family no longer uses the land, but he was happy to have her bring it back into production.

As Rosaly puts it: “Very conveniently he had a farm I could take over. I was a teacher but I planned to be a writer. The problem was, I kept getting rejection notices. So every time that happened, my farm just got a little bigger.”

The whole farm is 150 acres, counting the woods, and Rosaly only has 16 acres of it in cultivation. So far. Of course those 16 acres are pretty intensively managed and she has her eye on an 11 acre field - currently in hay - as a possible corn field.

One of those 16 acres is devoted to U-Pick flowers. “People love to come and enjoy it,” Bass beams, showing me the carefully maintained beds. “We have artists who come and paint here, and photographers come. When the farm stand is open it has that feeling of busyness – people buying things, picking flowers, painting. Over here is an herbal tea garden. That there is a water garden with herbs in it.”

Right down the center of the farm’s cultivated acres is a thin strip in hay. It was an air strip once, and Rosaly’s step kids, who now own the land, don’t use it any more but don’t want her to plant in it. So she has decided it makes a great insect barrier. She moves crops back and forth across the strip and says it takes the bugs a few weeks to find the next place to go.

On Mondays and Thursdays the staff picks for sales off the farm – selling hundreds of pounds of pro-
deuce to stores and restaurants in the area. For awhile Rosaly tried marketing her produce through a variant of a CSA — charging people a flat rate and letting them pick their own. But she found most people didn’t want to do that. It takes them too long to go all over the farm picking and they prefer to pay more for convenience.

Now about 90% of Rosaly’s produce is sold through her farm stand. It’s open 7 days a week from 9 to 6. Greens, lettuce and tomatoes are very popular items and she figures she sells about 100 pounds of salad mix a week there, at $12 a pound. On a good day she’ll have two cash registers busy.

Rosaly buys in strawberries, peaches and apples, however, because she has a hard time raising them organically. Some years her trees produce excellent apples, some years nothing. She also buys in corn because she doesn’t have the space to devote to raising her own.

Part of making the stand attractive to people is having popular produce available throughout the season. As a result, Rosaly has four greenhouses in tomatoes, each of which ends up producing on the order of 3000 pounds. One, which has heat, gets planted April first. By mid July the tomatoes are ripe and can command $3 per pound at the stand.

The next two houses, which don’t have heat, are put into tomatoes as soon as the bedding plants that were in them are gone, which is about May first. Those tomatoes carry the farm through until the field-planted ones are ready to harvest. The last house is planted in mid-June and produces the fall tomatoes. It is heated for frost protection and will go past Columbus Day, when the stand closes. Production after that goes to the wholesale markets.

Rosaly uses compost for fertility in the greenhouses, supplemented with green sand and dried chicken manure. She takes individual soil tests in each greenhouse to make sure there are enough nutrients available. The tomatoes get water via drip irrigation on timers, using as much as 4 hours per day depending on the results of a ‘pinch test’ to determine how dry the soil is.

The field tomatoes are planted, staked and trellised in late May. Bass is careful about rotations and they haven’t been on the same spot of the farm yet! She has a lot of heirlooms varieties, cherry tomatoes, and plum tomatoes. Among the cherry varieties she likes red pear, yellow pear, sungold (which is the absolute favorite of her customers), sweet one hundred, and red grape. She also grows gold nugget in the greenhouse. For heirlooms she selected red

Rosaly in front of her farm stand on a July morning.

The stand, which has been open for 13 years, draws partly from a big summer influx of people who have summer homes in Dublin. But some people come from as far as Boston, Bass says, especially to buy bedding plants because they like her quality.

She has a website, Rosalysgarden.com, where people can learn more about her farm and purchase her gardening book or videos of her farm. But Rosaly has yet to find the right marketing mix for her produce.

“We sold wholesale before opening the stand,” she says. “It’s interesting. We were actually putting some money in our pockets until we opened the stand farm. The problem with it is that it takes a lot of people. You have to have two people there all the time and when it’s really busy you have to have a third stocking the produce.”

photo by Jack Kittredge

These are just planted beds of salad greens. The seed is broadcast in 4-foot beds. Row cover protects the greens from flea beetles, but they don’t bother the lettuces.
Among the farm’s primary crops are lettuce and seeding and thus avoid thinning later. Rosaly prefers to use pelletized seed to control the rate of germination rate in the field from seed just wasn’t good enough for her. She put her melons under drip under the plastic but we never turned it on for water wheel transplanter and put potatoes in the holes. It solves our weed problems. We plant annual rye in the pathways and mow it with a walk-behind sickle bar. We’re picking about 50 pounds every second day now (mid-July). This is a wet field and we haven’t actually had to hook up the drip tape yet!”

In mid-July Rosaly gets 2 or 3 bushels a day of sugar snaps and garden peas. She finds that the garden peas are the most popular and believes in planting them thickly.

“We dig a trench about 6 inches wide,” she explains, “and pour the seeds in. We don’t get down and separate them. We figure a pea should be about an inch away from the next pea. We use about 8 pounds of seed per hundred foot row.”

“We’re also experimenting with a new system for planting potatoes,” she continues. “We lay plastic with drip tape underneath, then come along with a water wheel transplanter into 300 foot long rows. She has a cultivator that can work between the rows, but still has to go in and weed within the row.

For her salad mix, Rosaly has developed a mix which people are very happy with.

“It’s two-thirds young lettuce and one third greens,” she relates. “The lettuce varieties are salad bowl, red sails, green leaf, red leaf, Boston, romaine and red romaine. She transplants lettuce with a water wheel transplanter and put potatoes in the holes. It solves our weed problems. We plant annual rye in the pathways and mow it with a walk-behind sickle bar. We’re picking about 50 pounds every second day now (mid-July). This is a wet field and we haven’t actually had to hook up the drip tape yet!”

Rosaly plants her cucurbits on 100 by 20 foot sheets of plastic.

“We plant acres this way,” she says. “It takes two guys about 20 minutes to lay one down. We use our tractor wheels to make the trenches. The plastic keeps the stuff clean, holds in the moisture, gets the heat the crops need. Stuff loves it. We used to put drip under the plastic but we never turned it on for 20 years so I stopped using it here. The soil is really good and holds moisture.”

This year every single cucurbit was transplanted to the field from a bedding plant. Bass found the germination rate in the field from seed just wasn’t good enough for her. She put her melons under row cover. The seed is mixed with potting soil to make it easier to handle. Rosaly figures she goes through at least 100 pounds of salad mix seed a year.

She plants one bed a week starting April 20 right into mid-August, with double plantings as the season advances because there is less sun and plants don’t get as big. In mid-July, when I visited, they were planting somewhere between 2000 and 3000 lettuces a week. The salad mix beds are pretty because of the different blocks of colors.

Row covers are needed on the greens, but not the lettuces, for protection from flea beetles. The art of making a good salad mix, according to Bass, is in the picking.

“We grow the mix so you can pick it by the handful,” she explains. “You gather a handful and cut the leaves with a knife or scissors. I let people use their own style. We start cutting it when it gets to be about four to five inches high and move to a new crop every week. We try to handle it as little as possible – it’s very delicate. Pickers are supposed to go up and down the rows layering their boxes with different kinds. A lot of people are trying to figure out faster ways to cut it, but I don’t see how the quality could be so good. We really look at it before we cut it.

“We get $12 a pound for the mix,” she continues. “We don’t sell it in pound packages. I think people would gag. We sell it in half-pound and quarter-pound packages. But people come in and they’ll buy 4 half-pound bags. That’s a lot of money!”

“We’re picking a hell of a lot. Besides the retail sales here we sell it to fancy restaurants, weddings. If we had it we could sell 50 pounds a week off-farm.”

Rosaly had two washing operations running when I visited — one for lettuce, one for salad mix. The lettuce washing involved a quick dunk in a stock tank full of water and then spreading the leaves on a drying rack to drain. The salad mix washing was much more detailed. One woman sprinkled cut leaves in the stock tank while two others carefully picked out any grass, yellowed leaves, or other detritus. Once a whole tank had been filled with inspected mix it would be washed, drained in spinners, weighed and bagged.
Over the years water lines have been trenched underground to various parts of the field, making irrigation simple. Bass usually lays dripline wherever she puts black plastic down, although she won’t hook up the headers unless there’s a need. The flowers are an exception. They do have headers buried so people don’t trip over them because they have to stay good looking all the time.

Rosaly has her share of insect problems, but so far has found ways to deal with them. “I’m using Aza-Direct for potato beetles,” she says. “It’s from the neem tree. It wasn’t working well for us and then I mixed it with Crockers fish oil as a sticker. That seemed to work really well. Also, we were having problems with root maggot in our cole crops. So we put nematodes in the water of the water wheel planter when we planted them. We haven’t lost a single cole crop to a root maggot ever since.”

As for four-footed predators, the farm is surrounded with woods so there is intense deer pressure. She uses electric fence everywhere and baits it with foil and peanut butter. Just one or two deer need to get a shock on their tongues or noses, she says, and that’s it! They tell all their friends. One of the women workers brings her dog every day, which loves to dig up voles.

When it comes to weeds, Bass says she has them all: “We have red-rooted pigweed, lambs-quarters, small flower galanzoga, crabgrass.”

She lays a lot of black plastic for weed control, and when she plants crops like beans or carrots she top waters them, then covers them with a woven groundcloth and leaves that on for as long as the crop takes to germinate, which is 7 days with carrots and about 4 or 5 days with beans, she says. Then she pulls the cover off to kill the little weeds that germinated under the groundcloth by exposing them to the sun. It’s like taking a plant that is in the greenhouse out into the sun and leaving it there — it will burn right up.

Rosaly prepares the beds with a tractor-mounted tiller and cultivates with a Saukville cultivating tractor. She cover crops every field on the farm before winter.

Rosaly employs 20 people, which is a problem. “I have too many people working here!” she admits. “But we need them. Picking raspberries, peas, salad mix! We picked 40 pounds of salad mix today. They come as college age kids, interested in farming, and come back year after year. The people who are washing salad mix are in their forties and fifties and they’ve been working for me for years! There’s a kid up here who was a terror! He dropped out of high school, got here and fell in love with it. He got his GED and went to Ag school at UNH and got straight As. I think he’s going to end up with a PhD, farming and teaching. He’s a real success story. Another woman, her car broke down and while we were trying to get someone to tow it she looked around and said: ‘You know, I think I’d like to work here.’ She did and worked here for years!”

Bass manages so many people by getting up at 4 am and making a list so everyone knows what he or she is supposed to do. An order sheet lists all the
wholesale orders and she makes separate lists of each thing that has to be picked. Most of the staff have been there long enough they know where things are and how to pick, so she doesn’t have to do any heavy overseeing.

The future of Rosaly’s operation is still somewhat hazy. Her husband is now 90 and still makes deliveries. But he would like them to retire and spend time traveling. He has given all the land and houses to his children, and the couple is building another house right across the road. But none of the children wants to take over the farm, and Rosaly is only 66 and doesn’t know if she’s willing to give it up.

“It’s quite a money drain,” she worries. “We do lose money doing it. I don’t know of a single farm that makes it on its own. But it’s a very nice resource to the area – a place where people can buy fresh organic food. And it’s a nice chance for people who work here to learn. I’ve watched a lot of people grow up on this farm. It’s a way of life.”
Salad greens are very popular in the market these days. The production of these greens is labor intensive, provides much nutritious food per acre and is reasonably economically rewarding at this time. At Tobacco Road the salad greens are grown in an acre of irrigated mixed vegetables. This acre of intensive vegetables is planted in succession with two or more crops per year for year round production. This acre takes more than half the total labor hours of a full time/all the time farm couple for the better part of the year.

Soil fertility is of primary importance for the successful production of salad greens. A healthy rich soil gives vigorous growth, high yields, improved weed control and insect and disease resistance. Fertility is lost from the harvest of large amounts of vegetable matter, tillage and cultivation. For these reasons, fifty to one hundred yards per acre, per year of well-prepared compost is applied to maintain fertility. This compost is spread with a hundred bushel PTO driven manure spreader behind a Farmall Super C and is incorporated immediately after spreading to avoid nutrient loss. Tillage is kept to a minimum. Disk harrows are used to incorporate tough crop residue or cover crops but the primary tillage tool is a model 850 BCS 30 inch rototiller. These tools need to be used conservatively and efficiently to avoid destroying the fertility.

A bedding system is used which is appropriate for the tractors and for the use of low hoop tunnels. Thirty-six inch beds with ten-inch wheel tracks in forty-foot lengths are the standard bed. This allows for the International Cub tractors to straddle one bed at a time and the Super C to straddle two beds. After tillage the beds are shaped by a Cub tractor with a bed roller. The tire tracks provide for solid footing between the beds and the roller compacts the soil of the bed to avoid nutrient and moisture loss. This rolling is very important for the production of vigorous crops. The roller is a thirty-six inch thick plastic lawn type filled with water and pinned to the draw bar with a lift by simple chain hook up. Raking by hand follows shaping and rolling. This fine-tunes the bed by removing stones, debris and left over weeds. A well-prepared seedbed is essential for efficient germination, irrigation, cultivation and harvest.

Crop rotation is by plant family with the field divided into four quadrants with four sections each. Each section is planted with a single family of vegetables, one family succeeding the other over the course of the year. The major vegetable families that provide salad greens are:

- Compositae: lettuces, chicory, dandelion
- Chenopodium: spinach, beets, chard
- Brassica: mustards, arugula, tatsoi, mizuna, kale and others
- Umbelliferae: parsley, chervil
- Legume: pea tips

In addition mache and claytonia are grown over winter and edible flowers such as pansy, nasturtium and borage are added to the mix. These salad greens all have a season which they will do well to grow in. For instance the brassica family is not planted until after the summer solstice. Planting then continues through the fall to provide greens in the spring. These brassica greens have a long harvest period because they do not flower until the spring. By not planting brassica in spring, flea beetle damage is totally avoided and caterpillar damage greatly lessened. Lettuces and spinach grow well in spring and also in fall plantings for overwintering but poorly in the summer. Pea tips do best in spring and fall.

Most of the salad greens are planted four rows to the thirty six inch bed with an Earthway hand push seeder. Extra seed plates were purchased and adapted either by boring out seed holes or caulking over every other or two of three holes. The pea tips are either field or snow peas and are broadcast at about a pound to the foot of bed and then covered with a light layer of sifted compost.

Irrigation is provided with a Honda 5 HP gas powered water pump which pumps out of two dug wells. The Honda is relatively quiet and reliable. One and a half inch ABS line with insert reducers to hose bib valves connect to three quarter inch commercial grade water hose with rain bird sprinklers. The ABS line is placed out of the way of the
tractors as much as possible and the three quarter inch hose is reasonably easy to move out of the way for fieldwork. Sprinkler irrigation is important for successful seedling germination and growth. The system can handle about five sprinklers at good pressure at a given time, which is usually in the morning so the leaves can dry during the day. This helps to keep down disease pressure.

Weed control is important for clean and fast harvest. Compost sources need to be as free of weed seed as possible. Stale seedbeds are sometimes prepared by prepping the seedbed then allowing the first flush of weed seeds to germinate. The bed is then cultivated to destroy them without turning up the soil too much. This cultivation could include hand hoeing with onion, scuffle or wheel hoe, raking with steel rake or tractor cultivation with spring tooth harrow. As with all cultivation this is best done under sunny conditions for maximum weed destruction. The next possible cultivation would be a blind cultivation after the seed is planted but before the seed has germinated. This needs to be done carefully and in the direction of the seed lines. It is most effective on slow germinating crops such as parsley. After germination cultivation is held off until the seedlings are large enough to handle the soil, which may be thrown on to them. Hand hoeing with an onion hoe is the preferred method for weed control in the bed after germination. The wheel tracks are cultivated with either the wheel hoe or sweeps on a tool bar behind a tractor.

Pests are controlled through a variety of means. Soil fertility is the starting point. A fertile soil is not only highly resistant to insects and disease but its bountiful harvest greatly reduces relative levels of deer and woodchuck damage. Crop rotation and proper planting seasons break insect and disease cycles. Woodchucks and deer are the major animal pests. Woodchucks are usually found eating salad greens in the mid morning and late afternoon. Trapping in cage traps is effective as well as hunting. The cage traps can be set right on a woodchuck run and can be baited with such vegetables as cabbage, broccoli or lettuce. The deer eat salad greens by night. The deer herd is very large, well maintained and protected. A combination of fencing, row covering and hunting is used to keep damage to a minimum. The damage deer can do to row covers can be especially troublesome. Deer tend to eat the higher growing greens and shy away from low growing greens perhaps because of the grit.

Row covers and unheated greenhouses are used extensively to extend the harvest season. Cloth row covers either are laid directly on the crop or clear plastic or cloth can be suspended on hoops of wire. The hoops provide a superior environment for growth and are three-sixteenths of an inch round stock steel purchased from a local fabrication shop. They came in twenty-foot lengths so they were cut into three sections, six foot eight inches each. This length covers a thirty-six inch bed well. The steel rusts and this helps the cloth covers stick to them somewhat. The covers are held down with six mil black plastic sandbags purchased from Rainflo Irrigation. The forty-foot bed length allows for two people to cover the beds easily and has greater wind resistance than longer beds. One and a half mil clear plastic purchased from Sherwin Williams is inexpensive and provides a better overwintering environment than the cloth covers alone, though the plastic is more susceptible to wind and must be occasionally opened for rain or irrigation. Light gauge cloth covers are used in summer production for shade and moisture retention. Heavier cloth and multiple layers of cloth are used for fall and winter protection. A cloth laid on top of the crop with a plastic cover on hoops has been very effective for overwintering crops. These covers, sand bags and hoops are laborious and always in the way of cultivation so their use is restricted to conditions that warrant them.

Harvest is by hand with triangle like harvest knives from Johnny’s Seed Company. Two sides are kept sharp, one for a forward thrust and one for a backward slicing of the greens. If crops are bountiful forty or more pounds can be harvested per hour. This bounty is the key to efficient harvest. Harvest-
ing weedy, insufficient crops is time consuming and frustrating. Greens need to be harvested in early to mid morning or under cool conditions though cloth covers can extend this harvest time. They are harvested into five gallon buckets, which have lids to keep out sun and wind. Once brought to the processing area they are mixed in a tub of water, transferred to a second bath and then spread on screen tables. Weeds and debris need to be removed at this time. They are packed into reusable eight-gallon green Rubbermaid boxes for wholesale delivery or bagged into half-pound units for sale at the Farmers’ Market. The boxes and bags are drained before final delivery or sale.

The wholesale price is $6.00/pound and the Farmers’ Market price is $8.00/pound. Their popularity is extraordinary. If they can be produced efficiently they can be reasonably economically rewarding. Efficiency requires speed, accuracy and focus in decision-making. For instance, this means as the knife is cutting greens, the next cut has already been identified. You must do this consistently and without cutting yourself. The ability to provide a year round consistent product of quality makes for a rewarding market. Short seed to harvest time with the ability of large production on small acreage help make salad greens a viable option for small farm production.

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Mountain Dell Farm: Covering the Seasons

by Mark Dunau

Mountain Dell Farm is owned, operated and occupied by myself, Lisa Wujnovich and our two children. We own fifty acres of land in Delaware County, New York, five of which are farmed. We are self-employed subsistence farmers; all our wealth is in our land and cobbled home/barn, and all our income is derived from the vegetables we sell.

Mountain Dell Farm was NOFA-NY certified organic 1990-2001. It signed the NOFA-NY Farmer’s Pledge in 2003, and will continue the Farmer’s Pledge into the foreseeable future.

We sell vegetables from the first week in June through the Tuesday before Christmas. Our primary customers consist of restaurants in Manhattan, which we deliver to once a week. We also deliver to health food stores.

The farm is at an elevation of 1,400 feet. All our cultivated land is on a gradual slope (the flats don’t drain well enough to profitably grow vegetables). The soil can be described as well drained clay and modestly rocky. 70% of the vegetables we sell are salad or cooking greens. These thrive in the cool climate with the use of wide floating row covers from mid April through mid November, resulting in a six month selling season. The temperature at our farm rarely goes over 80 degrees.

Farming is gambling. When it comes to farming doubts, our most important piece of advice is that you’ve got to be in it to win it. What follows is a brief summary of how one farm family plays the season.

Layout of the Farm

Mountain Dell Farm is generally laid out in permanent planting areas that are from 10 to 25 feet wide, and are from 100 to 200 yards long. Most of these planting areas are 25 feet wide; our ideal width for wide floating row covers. Every other planting area has a path for the tractor to minimize compaction; two planting areas will have a footpath between them, then there is a path for a tractor before another planting area begins. This enables us to get equipment, fertilizer, or compost to any part of the farm without unnecessarily having to drive over the areas we cultivate.

We grow about 50 different types of vegetables. Most of the greens require multiple plantings to keep up with supply due to short harvest windows. Consequently, when we fill up our acreage, the farm has the look of a patchwork quilt.

Wide Floating Row Covers

Mountain Dell Farm is in business because of wide floating row covers. We use them for the following purposes:

1. Our direct seeding follows a weekly schedule for four months. To maintain that schedule we can’t wait for rain. Consequently, we need an area, cover it with floating row covers and water it once. Germination follows because row covers maintain the moisture in the soil.
2. Arugula, Broccoli Raab, Red Mustard, Tatsoi, Kyona Mizuna, and white turnips love row covers, which are kept on these crops through harvest. They grow about 50% faster under row covers with little flea beetle problems. Given a good watering when seeded, these brassica crops need no more water through harvest because the row cover maintains the moisture in the soil.
3. Row covers protect crops from frost damage. Double covered fields (two row covers) of the brassicas have no frost damage down to 18 degrees. Tatsoi, and arugula will take 14 degrees. Many lettuces double covered will take 18 degrees without burning. Red Salad Bowl, radicchio, and frisee will take 14 degrees (sometimes colder). Fennel will take 20 degrees. On a mid-November pick day, it is not unusual to harvest Mountain Dell Farm to harvest over 700 pounds of greens.
4. Insect protection.

Row covers have two significant problems when you build a farm around them:

1. The grower does not actually see what’s happening unless he lifts the cover. Sometimes the apparently gorgeous crop is a field of weeds.
2. Some crops, particularly lettuce, rot under row covers when it is warm. To use them effectively for cold nights with warm days, they must be pulled on and off. When dealing with an acre of lettuce, the farmer may feel more like a chamber maid.

We use Agrobon 19 row covers, purchasing them in rolls 30 feet wide and 1000 feet long for about $400. We buy one roll a year. For our operation, we use the 30 foot wide row covers because they work well on our 25 foot wide beds. We standardize the length of row covers by cutting them in 90 foot lengths, an easy size to handle, even when wet. The rocks on our farm serve to hold the row covers in place. Zimmerman Irrigation is the least expensive place to buy Agrobon-19 wide floating row covers in the North-east. Zimmerman’s telephone number is 800-452-5699.

Greenhouses

The greenhouse that we open at the beginning of March looks like a Rube Goldberg cartoon. The only thing positive about it is that it works. The greenhouse is six feet wide, 12 feet long, eight feet high and is built into the eastern wall of the bottom of our barn. It has five bench type levels and holds about 120 flats. It is lit by the eastern exposure and about 40 four foot fluorescent fixtures using 80 regular fluorescent bulbs. It is ventilated by a small fan, and air is circulated inside with two small overhead fans. An electric heater easily regulates the temperature, so germination and growth is easy to control despite the weather. McEnroe potting soil is used. Most starts are seeded in flats that hold sixty plants. There has never been any disease and only one minor insect problem over the fourteen year use of this structure. The cost of electricity for this greenhouse in March, April and the beginning of May is about $250.

In April, we open two greenhouses that receive southern exposures; these greenhouses are lean-to structures built against our barn, and are made of wood and plastic. One is heated with electricity (holding seventy flats), and the other is heated with an unvented propane heater (holding 110 flats). These greenhouses are well ventilated, and have never had any disease or insect problem.

Plants are hardened off on the north-east and eastern side of the barn. The greenhouses are closed by the middle of May, and all transplants are thereafter started on the eastern side of the barn.

Tillage

Sod is killed by plowing, discing and dragging with a Belarus 250 tractor.

Once a field has been opened up, it has never been replowed. In a normal year, fields are initially tilled with a 9 foot spring tooth harrow on a three point hitch mount.

About half the fields are planted twice in the same year. We turn under the first planting with a five foot harrow with duck foot shaped shanks on S tines; this implement goes deeper than the spring tooth harrow. The area to be replanted is then rotovated with a 5 foot rotovator.

Including mowing, the tractor work on the farm is about 60 hours.

Cultivation

Two people are able to cultivate most of the five acres of fields with a wheel hoe, collinear hoe, and a scuffle hoe. The nine foot spring tooth harrow with a three point hitch mount is fabulous for killing weeds by dragging them to the surface, thereby keeping an area weed free before planting.

For direct seeded greens, some hands and knees work is usually required once per planting for weeding and/or thinning when the plants are small.

Cover Crops

Squash and tomatoes are undersown with red clover. For areas not to be replanted, cover crop with oats through August.
weekly harvests range from 500 to 1500 pounds.
Accounts are called on Friday, vegetables are picked on Monday, delivered on Tuesday. Until October, nothing is picked that hasn’t already been sold. Almost all harvesting is done with a lettuce knife. We don’t pick baby anything. The youngest produce we strike down is teenage lettuce and young Hakurei turnips. Produce is carried to the washroom (12’ by 16’) in large plastic tubs. Water for the washroom comes from our home’s well water. Roots are washed in sinks or tubs with a nozzle sprayer from a hose, and greens are slow tumbled clean in an old photographic print rinser. Most vegetables are packed in double bagged grocery bags (1/6 sacks) and stored in 96 quart coolers for delivery the next day. Bags each hold 10 pounds of greens. Coolers hold about 30 pounds of greens. Every customer gets their own cooler or coolers depending on the size of the order. We charge by the pound for almost all items, not by the bunch or box.

We make 400 pounds of ice a week in two freezers at a cost of about $40 a month. Ice is in the form of 14 pound frozen trays, or two one gallon rectangular frozen water jugs.

September through Thanksgiving, we have our largest weekly harvests. What follows are the greens that three people typically pick and pack on the first Monday in November:

- Teenage Lettuce 90 lbs.
- Lettuce 140 lbs.
- Raddichio 70 lbs.
- Frissee 30 lbs.
- Arugula 60 lbs.
- Broccoli Raab 60 lbs.
- Tatsoi 60 lbs.
- Red Mustard 30 lbs.
- Bok Choy 30 lbs.
- Kyona Mizuna 30 lbs.
- Chinese Cabbage 60 lbs.
- Dandelions 30 lbs.

Storage
With the exception of winter squash, no vegetables are stored until the end of October, when there is fear of frost damage. Stored roots and greens are kept in a root cellar; built in the barn by insulating a section which has its western wall and foundation abutting the earth. We count on Raddichio harvested at the end of November to store until Christmas.

Transport
Coolers are packed in a 1982 Suburban. Using the roof, the Suburban holds up to twenty-five 96 quart coolers. Capacity is about 1400 pounds, 800 pounds of which can be greens. Knock on wood, there has never been a mechanical breakdown of this inexpensive, organized and cooled transport system that has worked for us over 200,000 miles.

Irrigation
We pump water out of our spring fed pond with a gasoline powered high pressure pump. The pump is attached directly to 5/8 inch garden hoses, and has no problem delivering good water pressure to two sprinklers at the highest part of our farm, elevated about 70 feet over the pump. Needs of feet of 5/8 inch garden hose takes us anywhere in the fields. We are easily able to start all planting on schedule with this water supply. Because of row covers holding in water moisture, we have been able to maintain all our crops by moving two oscillating sprinklers through the fields—we can cover about three acres in a week. We can pump 24 hours a day without worrying about running out of water (advantage of being at the bottom of a dell). This form of irrigation is drudgery during a drought, but requires little investment.

Fencing
We are in deer country. Our losses to these creatures, however, are less than $200 a year. We have around the perimeter of the farm a low impedance plastic wire fence with two strands powered by a Parmak Charger. Three feet behind that fence we have a single strand of low impedance wire. All crops that are highly loved by the deer (lettuce, raddichio, frissee...) have a single strand of low impedance wire fence running around them that is powered by the exterior fence. Once weeded, another strand will be run down the middle of a highly valued crop. These interior fences go up in about twenty minutes with fiber glass poles and are the key to our fencing success. When feasting, the deer quickly run into them and get 10,000 volts to the nose. We use low impedance plastic wire fence for the perimeter and interior because deer are virtually blind to them at night; they don’t jump over what they can’t see. Mountain Dell Farm is a series of unpleasant encounters to deer and they usually move on. It’s been six years since we lost more than $200 and shot an intruder.

Annual Fertilizer Inputs
1. 40 yards of locally produced compost
2. 3 tons of Fertrell Super N (4-2-4)
3. 1 ton Fertrell Gold SS (2-4-2)
4. 2 tons of McEnroe potting soil
Insect Pest Management

1. Wide floating row covers.
2. 1% rotenone dust to control flea beetles and cucumber beetles.

Vegetables Grown with Transplants

We put in approximately 40,000 transplants by hand a year. The heart of our transplant operation is lettuce, raddichio, and fennel. We usually start these together every three weeks, and transplant on a three week schedule. We transplant by hand along the planting area in rows of four with the plants a little less than one foot apart, then leave about a fifteen inch foot path. If a planting area is ten feet wide, this creates a series of beds about four feet wide, each with approximately forty plants. An advantage of this pattern is that we can transplant in all soil conditions, except for mud, and it is easy to keep cultivated; much the same as if they were raised beds. We thin by following a zigzag pattern in a bed, and yields are high.

Lettuce — Favorite varieties are Red Salad Bowl, Green Salad Bowl, Lolla Rosa, Galactic, Cocarde, Magenta, Marvel of Four Seasons, Freckles, Winter Density. First seeded in flats March 8, new transplants are started every three weeks until July 16. Then we do three large plantings in successive weeks for the long fall harvest, when lettuce is slow to go to seed. It’s last seeded August 1 for teenage lettuce or a warm fall. Transplant beginning in mid April with a handful of compost per transplant. Last transplanting is September 1. Area to be transplanted is first fertilized with Fertrell Super-N (4-2-4). Row covers used to prevent frost damage. With the exception of Winter Density, Freckles, and Lolla Rosa, the varieties mentioned here will take 18 degrees without frost damage, if double covered. Red Salad Bowl will take 14 degrees, if double covered.

Raddichio — First seeded in flats March 29. New transplants started every three weeks until June 26, then triple planted for the long fall harvest. First planting in mid April with a handful of compost per transplant, last planting in mid August. Row covers used to prevent frost damage. Will take 14 degrees, if double covered. Area to be transplanted first fertilized with Fertrell Super-N (4-2-4).

Fennel — First seeded in flats March 29. New transplants started every three weeks until the first week in June, when triple planted for the long fall harvest. First planted in fields the first week in May with a handful of compost. Last planting around the first week in July. Row covers used to prevent frost damage. Will take 20 degrees, if double covered. Area to be transplanted first fertilized with Fertrell Super N (4-2-4).

Chinese Cabbage — Seeded in flats in mid July. Planted in mid August with a handful of compost. Covered with row cover for vigorous growth and flea beetle protection for first month, then removed to prevent rot. Row covers used again when danger of frost damage. Will take 18 degrees, if double covered. Area to be transplanted first fertilized with Fertrell Super-N (4-2-4).

Purple Kohlrabi — Seeded in flats mid July. Planted in mid August with a handful of compost. Covered with light row cover for vigorous growth until harvest. Area of to be transplanted first fertilized with Fertrell Gold SS (2-4-2).

Basil — Seeded in flats the end of March. Planted in the fields with a handful of compost the last week in May. Covered for entire season with a light floating row cover. Area to be transplanted first fertilized with Fertrell Super-N (4-2-4).

Celeriac — Started in flats March 8. Transplanted to fields at the end of May with a handful of compost per transplant. Area of to be transplanted first fertilized with Fertrell Gold SS (2-4-2).

Tomatoes — Seeded in flats first week in April. Transplanted 3.3 feet apart the last week in May with compost. Covered with row cover until flowers appear for fast and vigorous growth.

Summer Squash — Seeded in flats May 5. Transplanted last week in May fifteen inches apart into trenches five feet apart enriched with compost. Covered with row cover until flowers appear for fast and vigorous growth, and to control cucumber beetles.

Winter Squash — Seeded in flats May 5. Transplanted in hills three feet apart enriched with compost. Covered with row cover until flowers appear for fast and vigorous growth and to control cucumber beetles.

Direct Seeded Vegetables

We direct seed brassicas every week from mid April until August 29. The heart of our brassica plantings are arugula, broccoli raab, tatsoi, bok choi, kyona,
mizuna, and Hakurei turnips. We plant these crops together every two weeks in beds about 25 feet wide and 90 feet long. We use an Earthway Seeder and customize heavy seed brassica plates by closing two out of three holes for Arugula, Tatsoi, Red Mustard, Bok Choy, and Mizuna. We close one out of two holes for Broccoli Raab, and use as is for the Hakurei turnips (dense planting makes for the desired small turnips.) Rows are thickly seeded along the 25 foot width of a planting area, with little room between plants within a row and just over a foot between the rows themselves. These dense plantings are possible because these brassicas have malleable stems, and will seek out all available light without becoming too stunted or leggy. However, the reason we customize the brassica plate of our seeder is that there is a fine line between dense planting and too many seeds. A typical planting of these crops has 76 rows; 12 arugula, 12 broccoli raab, 16 tatsoi, 8 red mustard, 8 bok choy, 8 mizuna, 12 Hakurei turnips.

Until September, tatsoi, bok choy, red mustard, and kyonamizuna have only about a two week harvest window before they go to seed. Arugula and broccoli raab only have about a one week harvest window before they go to seed, which is why they have a separate weekly planting. Except for the fall, row covers stay on these greens from seeding through harvest.

Fall is the easiest time to grow these greens. Plants grow well but are slow to bolt. Consequently, in mid August we triple plant. This mid August planting is crucial for a successful season, because this planting can last through November if properly maintained. However, when this fall planting nears maturity, this is the only time we remove the row covers; otherwise the plants grow too quickly, and are more likely to rot. If there is danger of heavy frost, we put the row covers back on. By November, the row covers are permanently back in place. As reported earlier in this article, double covered arugula and tatsoi will take 14 degrees, the rest of these brassicas will take 18 degrees. The heavy dew that precedes frosts saturates the row covers so that they freeze like igloos. When the sun hits the frozen row covers, the plants are gently warmed through the diffusion of light, and the dampness of the row covers themselves also helps prevent burning. Plants must not be harvested, however, until they thaw.

Arugula, Broccoli Raab—Direct seeded as soon as soil can be worked in mid April. Planted weekly in soil enriched with Fertrell Super-N (4-2-4). Triple planted in mid August for long fall harvest. Single planted August 22 and August 29 for mild fall. Planted with row cover. Row cover stays on through harvesting (except in fall). Plants cultivated after two weeks, dusted then with 1/8 rotenone for flea beetles, if necessary.
Tatsoi, Red Mustard, Bok Choy, Kyona Mizuna, Hakurei Turnips—Direct seeded as soon as soil can be worked in mid April in soil enriched with Fertrell Super-N (4-2-4). Planted every two weeks. Triple planted in mid August for long fall harvest. Single planted August 22 for mild fall. Planted with row cover. Row cover stays on through harvesting (except during part of fall). Plants cultivated after two weeks, dusted then with 1% rotenone for flea beetles, if necessary.

Frissee—Direct seeded as soon as soil can be worked in mid April under row cover in soil enriched with Fertrell Super-N (4-2-4). Row cover removed soon after seeds germinate. Replanted every three weeks until the end of July, when triple planted for long fall harvest. Will take 14 degrees, if double covered.

Dandelions—Direct seeded as soon as soil can be worked in mid April under row cover in soil enriched with Fertrell Super-N (4-2-4). Row cover removed soon after seeds germinate. Replanted every three weeks until the end of July, when triple planted for long fall harvest. Will take 18 degrees, if double covered.

Leeks—Direct seeded as soon as soil can be worked in mid April. Planted with row cover. Row covers removed soon after germination.

Daikons—Direct seeded for fall harvest last week in July under row cover in soil fertilized with Fertrell Gold SS (2-4-2). Row covers removed soon after Daikons are thinned.

Beets—Direct seeded first week in May and last week in June under row cover in soil fertilized with Fertrell Gold SS (2-4-2). Row cover removed soon after germination.

Rutabagas—Direct seeded under row covers last week in June in soil fertilized with Fertrell Gold SS (2-4-2). Row covers removed soon after thinning.

Mountain Dell Farm’s Six Rules For Sustainable Agriculture

1. Don’t drive the tractor onto wet fields.
2. Don’t use synthetic pesticides, herbicides, or fertilizers.
3. Rotate the crops as much as possible.
4. Try to put into the soil what you take out.
5. With rare exceptions, take at least one day off a week.
6. Like the soil, rest in the winter.

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Four Star Greens at the Ryland Inn

Roughly midway between Manhattan and Philadelphia, in the expensive New Jersey town of Whitehouse, sits a world class restaurant. The 200 year old Ryland Inn, originally a stage coach stop, has also been a 500 acre working farm. But in 1991 current owner chef Craig Shelton (winner of the 2000 James Beard award as best chef in the mid-Atlantic) brought to it his vision of a top drawer restaurant devoted to extremely fresh and flavorful tastes. Shelton put in raised beds where once cattle had grazed and started growing a diverse assortment of herbs and greens. During the nineties every year the garden got bigger and the restaurant better known.

Now the Ryland Inn is a very high end restaurant – the kind that gets four-stars in The New York Times. There are no overnight accommodations — one comes here for nothing less than a sophisticated culinary experience. Most popular are the three tasting menus, the “Tradition”, “Vegetarian”, and “Gourmand”. Each menu has eight courses, each course containing a carefully crafted mix of foods designed to bring out certain flavors and to flow to the next course. The “Gourmand”, for instance, starts with diver-sea scallops tartare with cucumber and golden osetra caviar, moves through European turbot, Maine lobster, Canadian foie gras, Roasted poussin, Tataki of Prime beef, Valrhona Gianduja cherries and ends with Chocolate soufflé coulant with hazelnut feuilletine, white chocolate and tart

To enjoy one of the tasting menus is normally a 3-hour experience. The Inn is open only for dinner, by reservation, from 5:30 to 9:30. It basically has two kinds of customers – one is businesspeople and those who come for special occasions such as weddings, anniversaries, or proposals. The other is a small assortment of less than a hundred people who are very affluent and dine here for pure enjoyment.

The Ryland Inn garden is a hundred yards or so from the restaurant, an enclosed area of about two acres surrounded by a high fence to ward off the deer. Chip and a Costa Rican seasonal helper are responsible for everything inside the fence. Chip says he went home after taking the job and said to his wife: “There’s good news and bad news. I found a job, it’s really close by and kind of cool. But I’ll make in a week what I used to make in a day!” Seven years later he’s still there, even though local taxes have tripled since then!

Chip has been a successful businessman but left to spend more time with his kids. As he tells it: “I was considering what I would do next. I got a call from someone in the state’s farmland preservation program saying that someone was looking for help to take care of their farm. I thought, ‘that’s interesting’. I called NOFA and they said: ‘Have you ever heard of the Ryland Inn?’ I said: ‘My heavens, it’s in my home town!’ Seven years later he’s still there, even though local taxes have tripled since then!

Chip Shepherd had been involved as a member of NOFA and had a 40 by 40 backyard garden plot. He says: “So when I sat down to talk to Craig about this I thought: ‘No problem! I just have to do it bigger.’ Man o’man! I came out here and put in some lettuce. They just use baby lettuce here so they came out 25 days later and cut it all down. I said: ‘Gee. That’s it? You cut all that lettuce down?’ I realized I have to plant lettuce every seven days and figure out the quantities. Some weeks they have a thousand guests and some weeks four hundred.”

Cherries and ends with Chocolate soufflé coulant with hazelnut feuilletine, white chocolate and tart

Chip Shepherd kneels in the Ryland Inn garden by a bed of arugula.

The Ryland Inn, an old stage coach stop, is set discreetly among giant trees.
me.” But here they have to come out to the garden and say: “I need to cook for 50 people today. What do you have?” I’ll say the hot peppers are really good, we have new fingerling potatoes, the tomatoes look great. They’ll decide to make a blackberry tart because that’s what’s abundant.”

Besides the fresh herbs and flavors required in everything, the garden grows what makes sense. For instance, high quality pea shoots and flowers don’t ship well and cost a lot, but grow easily there. It makes absolute sense for Chip to raise them and he does so from April 15 into October or even November. Pea shoots and flowers appear not just in salads but are widely used. Lightly braised they might be the bed for a fish dish.

The kitchen also makes a concentrated tomato flavor for use in sauces by forcing ground up tomatoes through tiny screens. What comes out is crystal clear water that tastes like tomato. From 30 pounds of tomatoes they might make a few quarts of tomato water.

Chip wishes the restaurant would use more of his flowers for display purposes, but he hasn’t made much headway there. “They get stuck on ‘What is the look we want with flowers?” he says. “They want roses on their tables in bud vases. But I can’t do organic roses. I’m always showing them alternatives – nice dahlias in a bud vase with a card that says ‘from our gardens’. They look nice. But they’re not roses!”

There’s an interplay between the needs of the garden and those of the restaurant, Shepherd agrees. But he feels the garden tends to drive the kitchen. “Once in a while,” he relates, “one of the chefs will ask me if we can grow a certain vegetable or herb – anise hyssop, microgreens. The cooks sometimes get some seed every year from family members who are traveling and brings seed from an old variety of tomato. But for the most part I decide what to grow.”

The biggest difference in producing here compared to a farm, he feels, is the timing: “I’m trying to produce from the earliest possible date to the latest possible one. Not growing 150 pounds of baby carrots, but 10 pounds a week for 15 weeks. When you make a mistake, it’s a costly one. This year the tomatoes were slow, which worked out well. It stretched the crop out and we’re not trying to shove more tomatoes on the kitchen than they can use. It’s that succession growing that is the key – you get your baby fennel when you need it.

“We supply all the tomatoes to the restaurant in mid-September,” he continues. “If I do my job right for weeks on end we supply all the carrots, all the leeks, most of the alliums, the thyme, the parsley, chervil, the herbal flavors. For anywhere from 6 to 8 months with thyme, to artichokes that we grow primarily for education but might produce enough for 3 or 4 meals.”

Most of the chefs at Ryland Inn are surprisingly young. Craig, the owner, is in his early 40s. Joe, the fish chef, is 21 or 22. Raj Dixit, the sous chef, came here at 18 or 19 after training at the Culinary Institute of America. Now he is in his mid twenties. The oldest, who handles the meats, is only 30. After working here a chef will have the resume to go pretty much anywhere.

The gardens at Ryland Inn are part of the allure of the place. The restaurant gets a good deal of press coverage and the garden is always stressed. Chip is familiar with hosting TV crews, famous people, photographers and journalists. The word is out: ‘If you go to the Ryland Inn, make sure you go to the garden.’

Despite this hype, and the fact that the garden is certified by NOFA/NJ, the restaurant menus barely mention that the food is organic. Shepherd is the one who pressed for certification, wanting the garden to be a demonstration of the ability of organic management to turn out a consistent gourmet product.

“I want to show people that you can grow edible food in your nice landscape,” he states. “You know you just don’t need to do all that stuff people got working here. A chef who grows their own vegetables is almost a chef in a garden.”
The trick, says Chip, is not in growing large amounts but in timing it so that some is always coming into top shape every day. raised doing in their gardens. Stop going to the nursery and buying ornamental plants. You can grow peppers that look really pretty. Heirloom tomatoes are incredibly interesting. So many commercial enterprises have injected themselves into our lives unnecessarily!

“I want people to come down here and see what you can do,” he continues. “It’s a NOFA New Jersey certified organic garden. People don’t believe you can do what we’re doing here. They come down and see it and say: ‘But, you don’t put any fertilizer down here?’ My parents had a ‘chemical’ garden.

“Now he will walk around with a wand and put water where it’s needed. The lawnmower gets it, the rototiller gets it, the weed sprayer gets it, the hoe gets it, the rake gets it, mice get it. When he is trying to germinate seed the drip doesn’t work anyway, he sighs. He also enjoys experimenting in the garden. There are so many pleasures, he says, is going through the seed catalogues. You get a perfectly unblemished pear.

“Now you take the bag off and let it grow inside the bag. Now you take the bag off and let it grow. It changes color – it stays green without exposure to the sun. There are people out in the Pacific northwest who use these bags on all their Asian pears for the Asian market. You get a perfectly unblemished pear. You see pear trees with hundreds of these bags on the outside.
them! It works. I had 25 bags so I put one on each of my trees.

Shepherd grows pretty much a full range of vegetables and small fruits for the restaurant. Things like asparagus, edible soybeans, baby ears of corn, and celeriac do particularly well for him. Some items, like peas and sweet corn, are relatively inexpensive and very labor or land intensive, so he doesn’t try for them. All the greens that aren’t cut are left to flower. First, the garden can get seed from them to replant. Second, the flowers are packed with the flavor of the original plant, and the restaurant loves to use them in dishes.

One of the Chip’s primary jobs is to keep the production of micro greens going. Despite his urgings, the Ryland Inn does not have its own greenhouse, so he raises them in his small propane-heated 10 foot by 12 foot home greenhouse.

“I probably did 3000 transplants this spring,” he says. “I’ll be doing micro-greens right through the winter. I can do enough to supply the whole restaurant. What we pay for them is obscene. They are so expensive that the Inn stopped buying them and said if I couldn’t grow them they wouldn’t use them.”

The chefs like radish, red garnet amaranth, a red mustard, a green mustard, spinach, dill, and parsley, among others. They use them in garnishes, sauces, beds for main dishes, or just for dressing. One can use corn, garlic, or virtually any other seedling or sprout, cut young enough, for a tender dish.

When he gets going full scale, Shepherd has 30 flats in different stages of germination and harvest. For microgreens he doesn’t need to worry about light and nutrition because in 10 or 12 days he’s harvesting them! His primary task is actually to stretch them to grow up and reach cutting length as soon as possible. He doesn’t want size, just height.

“They cut the sprouts when they’re only a few inches tall,” Shepherd explains. “One guy wanted to feature a salad totally out of mustard, micro lettuce, and radish sprouts. I said I didn’t know about that. You would have to have a lot of flats if out of one you got only one serving instead of fifty!”

A greenhouse would pay for itself in a year at Ryland Inn, Chip thinks. He puts in a business proposal for a greenhouse every year, but it doesn’t go through. The problem, he surmises, may be that for the Ryland Inn to have a greenhouse that is strictly functional would not be good enough. It would have to have a certain look, perhaps with a stone base, a redwood frame and glass panes. You can do that if you want to spend $25,000, he observes, whereas for only $5000 you can get a hoophouse where you can be growing huge quantities of food year round.

Over the years at the Ryland Inn, Shepherd has grown probably a hundred different kinds of lettuce. He has settled upon 8 or 10 now that he likes, although he’ll try a new one, or an heirloom someone has found. For the most part, he feels, the lettuce is just carrying the dressing. The primary difference isn’t in taste, but rather texture and appearance. There are oak leafs and loose leafs, reds and greens, and romaines. He doesn’t raise bibb because it doesn’t grow as a baby very well, and it’s not easy to cut. They also don’t use head lettuces, because they don’t want to grow up tall and be cut. The varieties he likes best are red oak leaf, white oak leaf, speckled romaine, tango, red curly leaf, freckles, and lolarosa.

“I prefer doing 6 or 8 different types of lettuce, each in a small block,” he says. “I use a pinpoint seeder which rolls through the soil and puts the seed in. It works better in blocks because each variety matures at the same time. If they’re mixed together and one is higher than the other, when I cut it I might miss the one below it. With the same variety in a block, they’ll be at the same height. We harvest into a tray and take the same proportions of each. Then the chefs will add microgreens on the top. The flavor gets added less than the appearance. But if we have the more flavorful greens — arugula, mustard — they’ll get harvested separately and the guys in the kitchen add them in.”

Raised beds of herbs and flavors are picked fresh daily for the complex sauces and garnishes for which the restaurant is famous.
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Year-Round Greens at Star Light Gardens

by Ty Zemelsky and David Zemelsky

Star Light Gardens is located on the site of what has always been the home of farmers and peddlers. We are right in the center of Durham Center, CT just off the historic town green. Our road is at the intersection of the library, post office, old grange building and the green — just turn at the traffic light. Yes, route 17 is now a very busy highway going through this old town; nearly 20,000 cars a day just a few hundred yards from our farm. But once you turn down Fowler Avenue things get a lot quieter.

This is the story of Connecticut. There are beautiful old towns everywhere and rolling hills that used to be all farmland. Most of the farms are gone now and the rolling hills have long been sprouting huge houses. But there are not all that many places for folks to work near to their huge houses, so every morning the old roads through the beautiful towns clog with traffic. The plus side is that there are lots of people in this small state, and quite a range of affluence.

I bring this up right at the beginning because one big reason for the success of our greens business is location. We are a tiny family run farm, styled more like a market garden typical in this part of New England in the 1800s than in the 21st century. The reason that it is working is precisely that. We are in a location where because of the large population in a small area and the affluence there are many venues reasonably close to us that are interested in certified organic greens.

We grow salad greens 12 months of the year and sell primarily to restaurants and specialty food stores. Our main product is a mesclun mix of Asian green, lettuces, endive, beets, claytonia, minatina, chard and spinach. The mix evolves through the seasons and reflects what grows best at any given time. For example, in the deep winter to early spring, claytonia, a beautiful plant of small heart shaped leaves and a mild flavor is abundant in our salads. It is, however, nowhere to be seen in mid-July. Likewise, lettuces are happily in the mix in the milder months but really don’t care for the cold winter conditions. Greens from the Brassicas family, including tatzoii, mizuna and yukaiva, savory, thrive pretty much year round as long as we protect them from flea beetles. Endive does well most of the months and plants such as rooiboo, spinach and chard fill in when lettuce is less abundant.

The next crop that is very popular is arugula. It currently accounts for 30% of our sales. As a member of the Brassicas family, it grows quickly but needs to be protected from flea beetles from early spring thru late fall. Also, it does not tolerate very cold weather easily leading us to the difficult decision of minimally heating two houses to accomodate the deep winter arugula crop.

A third crop which is very popular with our customers is pea tendrils, that is, the entire plant grown to about five inches tall. The texture and taste are wonderful. The plants can’t handle freezing but thrive in cooler weather on both ends of the season.

In the summer, we plant several varieties of basil, both outside and inside. The basil appreciates the heat under plastic heat and it keeps the tunnels busy in the summer season.

Last year for the first time and in addition to our bumper crops of basilis, we grew several varieties of tomatoes in the tunnels. These were a big hit. So much so that we have planted three times as many tomatoes in the tunnels. These were a big hit. So much so that we have planted three times as many tomatoes in the tunnels. These were a big hit. So much so that we have planted three times as many tomatoes in the tunnels. These were a big hit. So much so that we have planted three times as many tomatoes in the tunnels. These were a big hit.

We have five high gallon tunnel houses. Four of them are 30 x 96 and one is 30 x 144. The original four are on a north- south axis, the standard way for greenhouses to be sited. The longest one is on an east- west access. The east- west site is considerably warmer and brighter more of the time and the way the greens grow reflect this.

Still, the other four houses work well. When we first built them, the idea was to have no additional heat. Two seasons ago, after much discussion, we heated one house so that we could maintain it above freezing for the very cold part of the year. We also wanted minimal heat because we are getting into early tomatoes. This year the low level heat was functioning during March and April in two houses, both of them full of tomatoes that are doing well.

The two heated houses have double layers of plastic. The other three have one layer. The sides on all of the houses roll up and the ends can open with large doors as well. The roll ups are hand cranked and start high, about 2 feet off the ground. There are also exhaust fans on the ends.

Planting is fairly straightforward. To prepare the beds we use a combination of a small tractor with a tiller and hand tools. This would include a saddle hoe to remove old vegetation, and a cultivator attached to a wheel hoe and a broad fork. This is all followed by raking. Before seeding, the area is rolled lightly with a mesh roller to slightly compress the top surface. After the seeds are planted, we go over it again with the roller and gently push the seeds into the ground and eliminate the little groves left by the seeder. We use the four point seeder from Johnny’s. This is a demanding tool, deserving of careful attention. It can do a great job or no job at all — depending on whether one pays attention to the details. The method inside or out is the same basically except that the tractor gets used outside more and hand tools get used inside more.

In season, the days needed to grow are more or less true to what the label on the seed package says. We plant and plant and harvest and harvest. Sometimes we have to make adjustments because of the rain — too much or too little. We usually cut the greens twice and then try to replant as quickly as possible. This is much easier said than done.

At the height of the summer it can be difficult to get the lettuces to germinate. We have good results with putting shade cloth over the plants until they are well established. We plant outside until mid August. The plants started then are harvested by mid November.

The trick is making the transition from the outside season to the inside season and back again. As the summer wears on and the days grow shorter we prepare to plant in the houses. The methods we use are basically the same as the outside methods. The timing is the big difference. In the summer season most brassicas, for example, take about 21 days. In mid August that amount of time increases till it is double as the season goes on, and then even to triple. In mid August we start the endive and by the beginning of September are establishing other slower growing crops such as spinach and beet greens. The basic idea is to get the greens growing inside and have them ready to harvest before they more or less stop growing for a while and then cruise along harvesting the inventory as long as possible. When the light gets low, the plants hardly grow at all, although in our experience they do continue to grow very slowly. So we plant a variety of greens several times a week until about October 7 and expect that any and all of these will be ready to harvest before the end of the year.

We plant in four foot wide rows and then cover with row cover that is suspended over wire hoops about two feet off the ground for added warmth. It is a light variety which provides 2-3 degrees of extra warmth. The row cover sits on metal hoops to keep a separation from the greens. Condensation will freeze any plant to the row cover and discolor it. The hoops keep that from happening. Each house has four inexpensive window fans hanging from the collar ties. They are situated so that two of the fans blow the air up one side of the house and the other two blow the air down the other side. This creates constant movement of the air and helps prevent downy mildew from occurring.

Densely packed rows in the greenhouse are sometimes covered with row cover for extra protection.
About the only downside to our great location is that this entire area around Durham Center is short on water. Our land is no exception and our well can just barely handle the growing and household needs. We have done lots of experiments with various forms of irrigation, from overhead sprayers to drip irrigation, laying in tapes along each row. The drip tape on timers works well for us.

The ability of our greens to withstand cold temperatures is still an almost incomprehensible fact. Picture going out to survey the greenhouse on a cold February morning. Everything in it looks frozen solid and for all practical purposes dead to the world. As the day warms up, so too, do the greens. By mid morning, the sun has managed to totally thaw out the greens and it even feels a bit delightfully warm. For those of us who can’t afford to vacation in Bermuda each winter, the winter high tunnel is a worthy alternative! In fact, one desperately cold week, we hauled our summer lawn furniture out to the house and had a very warm, relaxing time out there.

As fall turns to winter, we harvest until we run out of inventory. Originally, we were dedicated to going full steam year round, but after the holiday season the restaurant business gets slow and we are exhausted, so the past winter we took January off. It was great.

As part of our planting schedule we plant after October for harvest in late February or early March. These late plantings will grow for a few more weeks and then remain dormant until late January. At that time, the light is strong enough and long enough for these small plants to continue their growing cycle. We look at the greenhouses as a small warehouse to keep our inventory alive and fresh in order to sell to customers on a weekly basis. This also means that we try to keep picking fresh greens outside as long as we practically can.

In the earliest days of spring we replant in the houses in the places that were earlier harvested. This year we also planted 1500 tomato plants in three of the houses. As soon as the outside field dries up enough we can start moving outside. The weather is an enormous factor. Last year we were planting outside early in March. This year the date was well into April.

Brassicas are the backbone of our salad mix and the flea beetles that attack them are our most bothersome pest. We put row cover down on a brassicas area as soon as it is planted. The edges need to be completely sealed off either by throwing dirt on them or by taking an old garden hose that is filled with water and has those little shut off valves on both ends. The garden hose idea works best, because it is easy to remove it, take a look at what is going on under the row cover or harvest and then re-cover as soon as the work is done. Don’t linger on this one. Flea beetles can spot a tasty field of brassicas in a blink of an eye and any holes in the row cover need to be repaired. Flea beetles are relentless. They reemerge at the end of April and are a factor right into the early fall. We also have occasional visits from aphids that can go crazy if they manage to get under the row cover. Ladybugs can be a good option if you can contain them inside the row cover, otherwise they will take off for greener pastures.

The most effective way we have for handling aphids is Safer soap. Dilute in water according to directions and spray directly on the plants. Get the underside of the leaves, cause that’s where they mostly hang out. Other than these two critters, the only other thing to worry about with salad greens are slugs. Plates of beer seem to work best for them.

We maintain a highly charged soil. Since we grow our greens in an extremely intense setting a lot of the available nutrients are quickly used up. Besides compost, we will add alfalfa meal for a quick nitrogen and organic content boost. I like to test a few times a year, watching all the usual vitals, especially the pH. Anything over 7.2 is a cause for concern. We don’t have a huge amount of space, but are striving to have one area in cover crop for a

Spinich is one of the happier greens to go through the winter.

Photo courtesy David Zemelsky

This is Claytonia at an early stage.

Later it becomes rounder with a beautiful flower in the center.
Below is a list of many of seed varieties that we use and why we choose them:

**Plant Varieties**

**Brassicas**
- *Arugula*: both regular and Sylvestra and Runway. Regular arugula works best for us. The others are too slow and not so special
- *Tatsoi*
- *Early and Regular Mizuna*. Early variety is a little more delicate and interesting visually
- *Red Russian Kale*

Winterbor (really special to look at and taste, and also too expensive):
- *Brassica*: relatively sharp, not for the faint of heart, but gives a great kick to salad mix
- *Tokyo Bokana*: beautiful visually, and can be sold a braising greens as they get larger
- *Yukina Savoy-robut, hearty, good in mix and braising greens*
- *Red Giant Mustard*
- *Purple kohlrabi*

**Claytonia**—Deer Tongue
- *Parris Island*
- *tip burn*
- *Butter crunch—sweet to taste*. Again, careful with
- *All Around useful variety*
- *Green Salad Bowl*
- *Galactic—the same as Blackjack*
- *Blackjack—a bit more expensive, but adds reds in*
- *Red Sails—best to grow as heads, tends to turn to*
- *Rosalita*
- *Red Salad bowl*

**Lettuce (lactuca sativa)**
- *Purple kohlrabi*
- *Red Giant Mustard*
- *Broadleaf Cress*: really sharp, not for the faint of
- *Winterbor (really special to look at and taste, and also too expensive)*
- *Regular arugula*: works best for us. The others are
- *Brassicas*—loaded up with dead leaves for a year, compost and
- *usual greens and lime approach*. They are then
- *will be able to do that. New areas are given the*
- *all the specials. This includes braising greens, which
- *one person is cutting the mesclun the other is cutting
- *gentler the wrist movements— it all matters. While
- *minimum of employees. After you cut greens for
- *3 pounds plastic bags*
- *tie with a twisty*. If chefs have special requests
- *for 4 pounds or 2 or for a mix that contains *
- *designing something that hopefully will*
- *make it easier to inspect and quality control the mix*
- *for weeds and bugs and to minimize damage caused*
- *the chefs it is important that we are organic but to*
- *work as individually with them as they want, calling*
- *weekly, being open to planting various requests and*
- *introducing them to plants they may not know about. This is time consuming business. To some*
- *of the chefs it is important that we are organic but to*
- *all of them it is important that we are fresh and*
- *winter*. Takes on a sweet taste in colder
- *slow to get*
- *Garnet Red Leaf Amaranth*
- *Bright Yellow and Ruby Red*
- *Garnet Red Leaf Amaranth*
- *Garnet Red Leaf Amaranth*
- *Garnet Red Leaf Amaranth*

**Chard**
- *Bright Yellow and Ruby Red*
- *Tetragonia (New Zealand Spinach)*

**Tomatoes** (all grown in greenhouses)
- *Galactic*
- *Yellow brandywine*
- *Prudens purple*
- *Sun gold*
- *Red grape*
- *Matts wild cherry*
- *Black Prince*
- *Stupice*

**Basils**
- *Cinnamon / Mammoth / Thai / Italian / Red Rubin*

The happy accident of finding ourselves in a place

**Cutting and washing**

**Selling**: once established, cut all season

**Claytonia**—plant in late August and harvest thru

**Spinach**—Space variety works well for us. Survives the

**Endive—Tres Fine and Frisee, Rhodes**

**Garner Red Leaf Amaranth—doesn’t taste wonderful**, but it adds such a brilliant red to the mix!

**Dwarf Grey Peas—grow as tendrils. Soak seeds**

**Charld—Bright Yellow and Ruby Red**

**Tetragonia (New Zealand Spinach)** slow to get

As greens are harvested we put the bags in a big
tub of water for and there are a ten we dunk each bag in smaller tubs, a total of three washes We take a couple of bags and toss them into a standard washing machine reserved only for spin drying
greens. This works quite effectively and is a great alternative to an expensive commercial greens spinner. After each bag is spun dry we add it to a
mixture which we built ourselves. Due to the size of the mixer, we usually have to mix several batches. Then we bag the greens into 3 pound plastic bags and tie with a twisty. If chefs have special requests
whether for 4 pounds or 2 or for a mix that contains
specific ingredients but not others, we usually try to
accommodate them. As packaging is completed, bags are refrigerated for a short time and then put in one vehicle or another and off they go. Most of the time
the other or both of us go in different directions delivering the greens to the various restau-
This could be the one of these
delivery days our story is reminiscent of the
children’s book, *The Occur Man* by Donald Hall. For the nets that first we picked in and later used to carry bags of greens into various restaurant kitchens have come home 16 hours after the process
didn’t take. We often use a bit of take out food or at least a
few ingredients for upper. In addition to this, there is a cooler out on the road. A small following of local folks has developed, who come and buy greens and leave money in an envelope.

As of this writing, we have outgrown the method of
cutting and washing and packaging that is described
and redesigning it. We actually outgrew it sometime last summer but we always have to do than there is time to do it in. From the efficiency point of view we are designing something that hopefully will make it easier to inspect and quality control the mix
for weeds and bugs and to minimize damage caused
by the process. We would love it as we did not have
to wash them at all, often fresh from the field they are clean as can be and there are handful of chefs that accept them unwashed. But restaurant tasks being so labor intensive most of our
restaurants want the greens to arrive ready to arrange on a plate.

This year besides the major change of the way we wash greens we are looking pretty carefully at what works best and what doesn’t. We are at a point
where we are in the learning curve and can handle
for all but the first year. We have control of our own time
and energy. But there is much work involved. That is an understatement. We are at the point in the
growth of the business where we have almost maxed out on our ability to do all or most of the
work involved and we still need to generate more
income than it does. Can we become more efficient
in enough ways to generate that additional income?
Can we expand along the same line with basically
the two of us and a tiny bit of occasional outside
help? Or do we need to consider expanding to take
on one or more employees which means that we would have to grow quite a bit to accommodate both the pay for employees and the additional income that we need? If we did that how would that change things? At the time of this writing nothing about any of these issues has been decided.

Another idea that we think about is that when we first started it just worked out that we sell to restaurants—mostly places that we cannot afford to frequent ourselves. Sometimes we feel that we would prefer to sell to anybody and everybody—the farmer’s market approach works well for some. Do we adjust to accommodate farmers markets or others selling venues and if so how? One new selling area that has developed is educational institutions. Some schools are starting programs to try to feed their students with local fresh and sustainable in season food. Berkley College at Yale University has begun such a program with the guidance of chef and Yale parent Alice Waters and Start Light Gardens continues to be a part of that effort.

So here we are a few hundred feet from one of those many traffic lights that can just barely control the continual growth and development of 21st century Connecticut. Our tiny farming business is thriving not only in spite of going against the grain of its location and time, but because of it. We have to work hard, market effectively, remain flexible and practice creativity. We find this a wonderful mix.

This is Mizuna (the spikey plant in the center) and vitamin green (the oval one), both brassicas.
Pruden's Purple, an heirloom tomato, for horizontal to improve heirlooms by growing large populations. ROS aims to breed plants for a direct benefit for turn to Resistance”, a world-renowned breeder who conditions. This low-tech field selection builds resistances are often overcome by an evolving complex resistances; meaning that “the bad guys” genes within a plant population to create lasting Durable (horizontal) resistance uses multi-linked local diseases and pests of their farms. In contrast, ROS is teaching farmers how to im- prove and breed crops that are adapted to their local most climates, but not specific regional adaptation. In contrast, ROS is teaching farmers how to im- prove and breed crops that are adapted to their local climate, unique market niches, and resistant to the prove and breed crops that are adapted to their local climates, unique market niches, and resistant to the desired plant characters are stabilized in the popula- tion. Frank and Karen Morton of www.milkweedseed.com and Dr. Kim Stoner from Connecticut Agriculture Experiment Station will mentor a breeding project to cross Brassica rapa varieties to develop nische-market, tasty, colorful, pea-bean-resistant salad greens by crossing Mung, Manta, Tatum, and Scarlet Ohno Turnip with each other. Seed packets of these three varieties have been sent to a number of interested growers who attended the ROS conference this past winter. These farmer/breeders are sharing ideas on a Brassica Breeding list-serve moderated by Jeremy Barker-Plotkin. Contact Jeremy to join.

The third method, “home-made hybrids”, involves cross-pollinating plants by hand. For example, crossing a disease resistant variety with a suscept- ible crop with other desired characteristics e.g. flavor, color, taste, good production. With the support of Dr. Mark Hutton, ROS growers are developing a delicious, disease-resistant pickling cucumber. Last year Conquest, a delicious pickle that is no longer commercially available, was cross with Clinton, a disease-resistant pickle. Rob Johnston of Johnny’s Selected Seed provided the Conquest seed and Mark Henning of Cornell University supplied the Clinton seed, and conducted the first generation cross at Cornell. Seeds from the second generation are available to interested grow- ers. Restoring Our Seed is working with Rowen White, coordinator and curator for the Haudenosenaan Native Seed Collective (HNSC), a group of indig- enous and non-indigenous growers committed to restoring Northeast Native heirloom crops. The Haudenosenaan collection of rare locally-adapted landraces includes: purple corn, zebra striped beans, giant orange hubbards, and other wonderful foods and flowers. Rowen is working arduously to restore rare native seedstocks into healthy populations. The goal of many of the HNSC growers is to provide enough stock seed to gift back to Haudenosenaan (Iroquois) people for use in community gardens, large-scale grow-out, and more.

The diversity of ROS methods and resources encourages participating farmers to develop an approach that works for them in their unique farm operations, to grow and select what they desire in a variety and to consult other farmers and technical people on how to reach their goals and increase their farms’ profitability.

Farmers have suggested several breeding projects for ROS that include: More cold-hardy lettuces and Asian greens for unheated greenhouse winter production, a flavorful potato that is resistant to viruses and perhaps Colorado potato beetle, a tomato with higher levels of lycopene or other anti- oxidants, and more diverse and colorful summer squashes that are resistant to powdery mildew. The ROS team will see what we can do to help farmers accomplish these goals.

Following is the ROS team’s and our field days for the next season. Please contact us if you would like to participate in breeding projects or attend one of our events.

**COMING ACTIVITIES**

<table>
<thead>
<tr>
<th>Date</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Jul. 11</td>
<td>Backyard Breeding hands-on workshop with Bryan Connolly.</td>
</tr>
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<td>Aug. 1</td>
<td>Small Farm Field Day at MOFGA with Dr. Mark Hutton.</td>
</tr>
<tr>
<td>Aug. 12-15</td>
<td>NOFA Summer Conference.</td>
</tr>
<tr>
<td></td>
<td>Farm Field Day with Jeremy Barker-Plotkin</td>
</tr>
<tr>
<td></td>
<td>Tour of Hampshire College CESA Production Fields with Rowen White and Matt Rulewich</td>
</tr>
<tr>
<td>Aug 14, 10:00-11:30</td>
<td>PSI Mobile Seed Cleaning Unit and Plant Breeding Presentations</td>
</tr>
<tr>
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<tr>
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**TBA**

Date and location of 2005 Winter Conference:

- Dr. Mark Hutton, mhutton@unext.maine.edu
- ROS Coordinator, Maine Cooperative Extension’s Vegetable Program
- A seasoned vegetable breeder with years of experience in plant breeding. Mark will be conducting in-field workshops on disease identification, plant selection, seed harvesting and processing at Highmoor Farm, Monmouth, Maine (August, date to be announced) and at Maine Organic Farmers and Gardeners Association’s Small Farm Field Day, Unity, Maine, August 15. He is also available to visit your farm to provide technical assistance.

**CR Lawn,** ROS Coordinator, crlaw@fcsseedcos.com, Fedko’s trial farmer who evaluates little-known heirlooms and reintroduces superior varieties into commercial production. CR is working with farmers to advise on varietal market-ability and the economics of seed crop production.

- Eli Rogosa Kaufman, ROS Coordinator, ekaufman@netvision.net.il, is a seed-saver, amateur crop breeder and school garden educator. Eli

RESTORING OUR SEED: working together to create a community seed supply

by Bryan Connolly

Ever wonder how generations of farmers without advanced degrees grew their own seed and developed the foods of today? ‘Restoring Our Seed’ (ROS) is a grassroots collaborative of organic farmers, cooperative extension and plant breeders working together to reclaim our plant genetic resources. Founded by Northeast SARE to train farmers and gardeners in seed-saving, crop improvement and on-farm plant breeding through farm field days, conferences, a how-to manual and web-based field selection. This low-tech field selection builds resistances are often overcome by an evolving complex resistances; meaning that “the bad guys” genes within a plant population to create lasting Durable (horizontal) resistance uses multi-linked local diseases and pests of their farms. In contrast, ROS is teaching farmers how to improve and breed crops that are adapted to their local most climates, but not specific regional adaptation. In contrast, ROS is teaching farmers how to improve and breed crops that are adapted to their local climate, unique market niches, and resistant to the desired plant characters are stabilized in the population. Frank and Karen Morton of www.milkweedseed.com and Dr. Kim Stoner from Connecticut Agriculture Experiment Station will mentor a breeding project to cross Brassica rapa varieties to develop nische-market, tasty, colorful, pea-bean-resistant salad greens by crossing Mung, Manta, Tatum, and Scarlet Ohno Turnip with each other. Seed packets of these three varieties have been sent to a number of interested growers who attended the ROS conference this past winter. These farmer/breeders are sharing ideas on a Brassica Breeding list-serve moderated by Jeremy Barker-Plotkin. Contact Jeremy to join.

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The 30th annual NOFA Summer Conference is truly an opportunity to boost brain and muscle power, to network, to be inspired, and to have a great time. Eliot Coleman’s words just might change your life. Vandana Shiva might steer you to star PSU workshops may affect you in numerous ways. Old friends and new ones may augment your weekend and possibly the rest of your life. There’s a feeling in the air for this year’s conference—if you haven’t been to one ever, this is the one to come to; and if it’s been a while, this is the year to come back. You might carry a lot of it with you to Amherst, but you’re guaranteed to take a lot more back home on August 15.

Remember the Early Bird! That’s July 12 and it will save you some serious cash.
developed a grade-by-grade seed-saving and plant breeding curriculum for elementary to high school students that can be downloaded on growseed.org. The program has been piloted with www.jerusalemcityfarmers.org and in Belfast, Maine. See: www.sad34.net/garden. She is currently working with an extraordinary edible and hardy collection of food crops, and experimenting in breeding new summer squash and Brassica rapa salad green creations.

Bryan Connolly- I am a botanist, gardener, and seed saver interested in working mostly with the cucurbits, especially squash. I hope to breed powdery mildew resistance into gourmet summer and winter squashes. I have made a lot of progress with the patty pan type squashes working with Benning’s Green Tint, Wood’s Bush Prolific, and Sunburst (scallopini). I will be holding a plant breeding field day at my garden this summer in northeastern Connecticut demonstrating how to hand-pollinate tomatoes, pepper, and squash. Please contact me if you are interested in attending.

colleybryan@hotmail.com (860)-423-8305

Will Bonsall is curator of over 3,000 varieties for the Seed Savers Exchange. He would like to develop a network of farmers and gardeners who could identify and save these wild and heirloom varieties and make them available to growers for production. 39 Bailey Rd., Industry, ME 04938.

Rowen White, rowenwhite@yahoo.com Assistant Farm Manager at Hampshire College Farm, draws on her indigenous Native American knowledge of seed-saving and research to conserve New England’s traditional food crops and age-old traditions with the land. Honorizing the cultural and historical connection to Native seeds, Rowen conducts seminars and workshops from elementary school to college level to share the rich heritage of her people in ways that inspire each of us to be stewards of the earth. For information or workshops, contact: rowenwhite@yahoo.com, 978-780-8875.

Jay Leshinsky, manager of the Middlebury College Organic Garden, jay.leshinsky@verizon.net, is introducing seeds and crops into a college garden program. This is the first year the students of the Middlebury College Organic Garden will be participating in R.O.S. We will be selecting and saving heirloom seeds as part of our research for a curriculum about seeds saving at college gardens. Students will be working with the heirloom tomatoes Pruden’s Purple to select for horizontal resistance to Alternaria. He will make crosses between Brandywine Green Zebras) and Camp Joy Cherry to select for several traits. We will also do selections for disease resistance from the second generation of cross between Conquest and Clinton pickling cucumbers. Finally we will be working with some of Frank Morton’s Wild Garden Pungent Mustard Mixture and Wild Garden lettuce mix to select for appearance and taste. Local organic farmers and the Middlebury dining services will also participate in the selection process.

Jeremy Barker-Plotkin, 413 323 9608, jplotkin@hampshire.edu Is attempting to breed resistance into four different tomato varieties to try to develop a full-color palette of resistant tomatoes. In 2003, he planted these varieties at 4-5 different locations in New England. He is attempting to breed resistance into four different tomato varieties to try to develop a full-color palette of resistant tomatoes. In 2003, he planted these varieties at 4-5 different locations in New England.

Cold-Hardy Greens - He is trying to develop a harder version of Mizuna, which is an important addition to his salad mix, but is not hardy for the very cold conditions in the winter greenhouse. He is growing out, in closely-spaced alternating rows, Mizuna, Tat Soi, which is a harder relative of Mizuna, and Mizpoona Salad Select, a mix developed by Frank Morton, which is a selected cross between the two. He is hoping to select the individual plants with look like Mizuna, but exhibit higher cold-tolerance, and let them produce seed. He will rogue out the rest of the plants by hand if the cold doesn’t take care of them.

Dancing Greens crosses together Mizuna, Tat Soi, and Scarlet Ohno turnip, which has a nice red leaf. From this interesting mix of colors and shapes, promising material can be selected. Other members of the R.O.S network are also conducting this project, but Jeremy is doing it in his winter greenhouse to add selective pressure for cold-hardiness. The final project uses lettuce as the target crop. He is growing out ten different lettuce varieties which have shown some cold-tolerance, and will be roguing out the plants with the least cold-tolerance. The offspring will be selected over the next several years for cold-hardier and other favorable salad-mix qualities

Jack Kertesz 207 568 3455 \nM OFGA Demonstration Site Farmer will be demonstrating the Pruden’s Purple and Cucumber projects plus a project to improve the uniformity and disease resistance of Champion Radish.

Matt Rulevich - Woolly Mammoth Farm ROS Massachusetts Co-coordinator 12 Barney’s Joy Road, Dartmouth, MA, 02748 508-636-2060 marlevich@comcast.net

Matt will collaborate with Rowen White on many ROS projects involving heirloom vegetables. They are developing a seed-cleaning center at Hampshire College with a Grand Opening seed cleaning workshop this Fall at the CSA packing/storage barn (date TBA - check the ROS website later this summer) The center will feature a ‘Clipper Office Tester’ for final cleaning/conditioning of seed, which includes a selection of over 40 screens to suit many vegetable and grain crops, a seed inspection tool, an air compressor, shop-vac, and other miscellaneous tools for taking most roughly threshed/harvested seed crops through finishing and even germination testing if desired.

Leading up to the Fall workshop, Rowen and Matt will co-host the “On Farm Seed Cleaning” workshop at the annual NOFA Summer Conference featuring a tour of the Hampshire College CSA production fields and covering many beginning to intermediate areas of seed growing. Matt will cover seed crops of onions, turnips, winter squash, soybeans, cereal grains, and corn that he is most involved in. He also manages the ROS Massachusetts database of seed school participants and past Pioneer Valley Seed Collective Conference attendees, over 70 people with an email group of around 40. He will be sending out periodic mailings through email announcing workshops and other ROS happenings - contact him if you would like to plug in. Folks should also be aware that there are many other presentations related to seeds happening at the NOFA summer conference. The list includes:


Matt is relocating his family and farming operation from Western MA to the South Coast of MA, and will continue growing Wapsie Valley OP dent corn, Sheba hulless barley, Shiromfu soybeans, and New England broad beans. He is also doing Melon and squash (looking mostly at disease/insect susceptibility). He will be working with other seed growers, either in Eastern MA or those interested in growing grains, across all aspects of seed growing/selecting/harvesting/processing.

Dr. Raoul Robinson raoulrob@snet.net Return to Resistance - Excerpts Breeding

Frank Morton, wildgardenseeds.com, frank@wildgardenseeds.com Frank Morton, plant breeder of extraordinary edible landscape and salad varieties, is an expert in the ecological dynamics of seed production. Frank develops varieties through trials and reselection with stress, pest, and disease pressure. Only the best strains make it to field production, and these get prime care in fertile organic soil to encourage large healthy seed.

Public Seed Initiative, www.plhr.cornell.edu/psi A collaboration of Cornell University, USDA-ARS Plant Genetic Resources Unit in Geneva, NY, the Farmers Cooperative Genome Project and NOFA-NY to promote on-farm selection and participatory breeding. Their Combined Unit will be on hand at the NOFA Summer Conference on Aug. 14 and at Common Ground Country Fair, Sept. 24-25 and they will give a Plant Breeding Presentation on Aug. 14.

“Our Products Work”
Imagine sitting for three days and listening to the region’s most experienced organic farmers and top extension people discuss organic vegetable production. That is what this excellent set of proceedings lets you do. Jean-Paul Courtens, Anne and Eric Nordell, Clifford Hatch, Dave Marchant, Steve Mong, Paul Arnold and Brian Caldwell are the growers. The Extension folk include individuals many NOFA members might recognize, such as John Howell, Vern Grubinger, Ruth Hazzard, and Harold van Es.

The proceedings are organized logically into sections on Soil and Nutrition, Weed Management, and Insect and Disease Management. The extension scientists generally present an overview for each section, complete with diagrams and charts. The farmers give information on their own operations and how they deal with the topic at hand. Caldwell, Hatch and Courtens discuss soil and nutrients, Arnold and the Nordells talk about their approaches to weed management, and Mong and Marchant cover pest issues.

Although experienced growers may know much of this information already, I found it valuable to have it presented in an organized fashion and in one spot. All of the essays were good, but there were a few exceptional ones. I particularly liked Janice Thies of Cornell on Soil Life and the Soil Food Web.

Courtens has put together some interesting figures on NPK uptake by common vegetables.
Courtens on Fertility Management at his farm in Kinderhook, New York, Cornell's Charles Mohler on Weed Biology, the Nordells on horse-drawn tillage for weed control on their Pennsylvania farm, and Michael Hoffmann (Cornell again!) on beneficial insects.

One minor complaint I have with this publication is that the extension folks seem to have given their presentation aware that the proceedings would be published. Their talks read like articles and are well-illustrated. The farmers' presentations sound like they were transcribed directly from a verbal presentation based on slides that aren't on display in the proceedings. Thus you have them saying things like “This is a shot from across the valley” which make no sense in this book. One would think they could have been given an opportunity to edit their presentations for publication, as the extension folk did.

Table 5
Seed mortality as percentage loss per year in cultivated and uncultivated soil over a 5 year period. Calculated from Roberts and Feast (1972).

<table>
<thead>
<tr>
<th>Species</th>
<th>Cultivated</th>
<th>Uncultivated</th>
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<tbody>
<tr>
<td>Shepherd's-purse</td>
<td>43</td>
<td>24</td>
</tr>
<tr>
<td>Lambquaters</td>
<td>31</td>
<td>8</td>
</tr>
<tr>
<td>Black medic</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>Annual bluegrass</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Prostrate knotweed</td>
<td>47</td>
<td>16</td>
</tr>
<tr>
<td>Wild buckwheat</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>Common groundsel</td>
<td>High</td>
<td>45</td>
</tr>
<tr>
<td>Common chickweed</td>
<td>54</td>
<td>32</td>
</tr>
<tr>
<td>Persian speedwell</td>
<td>54</td>
<td>22</td>
</tr>
<tr>
<td>Field violet</td>
<td>40</td>
<td>15</td>
</tr>
</tbody>
</table>

*a Soil was stirred four times per year.

Mohler’s data makes a good case for cultivation!

With an Ear to the Ground:
Essays on Sustainable Agriculture
by Vern Grubinger
published by Northeast SARE, 10 Hills Building, 105 Carrigan Dr., Univ. of VT, Burlington, VT 05405-0082
$10, paperback, 198 pages

Review by Jack Kittredge

Many of you know Vern, the redoubtable extension specialist from the University of Vermont. This is a collection of his essays that aired on Vermont Public Radio between 1997 and 2003. They are short (2–3 pages) and sharply focused on a topic which is somehow grounded in agriculture.

I like the crop specific ones best. He delves into the history and little-known facts about potatoes, pumpkins, garlic, corn, tomatoes, high-bush blueberries and raspberries. You know, as farmers, that modern potatoes are immortal, being clones rather than individuals produced by seed. But did you know that the lowly spud and it’s nightshade cousin the tomato (in that order) are the two most popular vegetables in America? You farmers, again, will know that raspberries are a member of the rose family, but did you know that they appear indigenous both to Asia Minor and North America. Or that blueberries, red grapes, cranberries, garlic and broccoli are the leading crops for anti-oxidants?

Vern touches on other topics of more general concern, usually with a gentle humor and wisdom about rural life. His essays on explaining 911 to his kids, the economic realities of small farming, herding cats and coaching soccer, school lunches, and development are gems of humble clarity. This is an excellent book to get and read during the farming season when you don’t have more than a couple of minutes to spare. It’s great to read while you are phoning and someone has put you on hold, or while you are waiting for that interminable dial-up modem to download the picture of your grandkids.

North East Workers
on Organic Farms
Farmers: Looking for apprentices?
Apprentices: Looking for farms?
Contact: NSOOF
P.O. Box 604
Rehoboth, MA 02669
(508) 223-4231
Email: program@nssof.org
Website: www.nssof.org

New England
Organic Network
Bee, Pork & Lamb
Kosher Chickens & Turkey
Ezra Bitterman
(888) 873-0248

World’s largest pumpkin weighed in at 1140 pounds in Ohio in the year 2000? You farmers, again, will know that raspberries are a member of the rose family, but did you know that they appear indigenous both to Asia Minor and North America. Or that blueberries, red grapes, cranberries, garlic and broccoli are the leading crops for anti-oxidants?

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NOFA Events
Swapping Skills, NOFA Style

by Camilla Roberts

After more than thirty years of growth, there is a remarkable diversity of expertise amongst the seven NOFA chapters. This was vividly evident at the Skills Exchange organized by the NOFA Interstate Council on March 17, held at Hampshire College. This event was a first such training exchange ever swapped amongst the chapters. A total of twenty six NOFA staff and board members attended the full day and potluck lunch.

The diversity of programs and services across the NOFA chapters is impressive. The topics chosen were based on an assessment of all the chapters’ needs and strengths. The assessment was conducted last fall by Camilla Roberts, as a follow through on Strategic Planning of the Interstate Council. The range of subjects included organizational basics, such as bookkeeping, grant writing and membership building. Topics more specific to NOFA included youth and land care programs, and reviews of how special public events have been organized. Technical assistance to farmers and gardeners was discussed, as well as long range planning and funding.

All of the presenters were from within NOFA. These folks were both presenting and then learning skills in another session. A conscious choice was made to use the expertise available within NOFA, for efficiency and economy. While we may find it valuable to hire expert training from outside the community in the future, this was an excellent start. We were teaching each other our most practical lessons, often learned through years of trial and error, now tried and true!

It was also a fine opportunity to get to know more of the dedicated organic activists around the northeast, how they think and do their work. There are certainly many ways to deliver the mission of “organic”, more than we were able to include in just one day. Undoubtedly there will be more Skills Exchanges in the future!

The Northeast Organic Farming Association/Massachusetts Chapter’s 4th Annual Organic Garden Tour will take place July 11, 10 am to 5 pm, rain or shine. Tour properties ranging from a former asphalt lot transformed into a lush garden of edible and ornamental plants to an urban farm that raises vegetables, herbs and fish promise to make this a fabulous event. The tour includes a total of fourteen diverse, organically managed properties in Jamaica Plain, Brookline, Mattapan, Dorchester and Roslindale. Advance tickets $15. Day-of-tour tickets $18 for non-members and $15 for NOFA members. This tour offers a great volunteer opportunity for organic land care providers to meet potential clients and to support the NOFA/Mass chapter. Besides, you’ll also get a free NOFA t-shirt! Shifts will run from 9:45 - 1:45 and from 1:30 - 5:15. This will allow early shift volunteers to be briefed by owners/managers and late shift volunteers to overlap with early shift volunteers. So make some new organic buddies, promote your business and NOFA/Mass, and have a really fun day.

For more information on the tour or on volunteer opportunities, contact Kelly Slater at 781-231-6864 or go to www.nofamass.org, where tickets may be purchased on-line.

Attendees shared skills in areas such as financial management & membership building.
NOFA Organic Land Care Program

by Mary Tyrrell and Bill Duesing

Almost five years ago, NOFA members from Massachusetts and Connecticut with a common interest in organic land care came together to form the Organic Land Care committee and program with the mission of extending the vision and principles of organic agriculture to the care of the landscapes where most people live, work, and carry out their daily lives.

These members included:
1. Landscapers who wanted real and honest organic standards to separate them from the landscapers who, for example, tell customers “I’m organic, and then use just a few pesticides and some Milorganite.”
2. Consumers-homeowners and condo dwellers-who want to have their properties cared for organically
3. Scientists concerned about the effects of excess nutrients and other common landscape practices on soil, water and ecosystem health, and
4. Pesticide awareness activists, including cancer survivors who realize the dangers of the widespread use of lawn chemicals.

In the past four years, the Organic Land Care Program committee has:
1. Created a basic brochure for homeowners and the public,
2. Developed and published the NOFA Standards for Organic Land Care,
3. Trained over 200 professionals in organic land care through five-day courses in Connecticut and Massachusetts each of the past three winters.
4. Accredited well over one hundred land care professionals, including some from each of the seven states with NOFA chapters. Accredited professionals agree to provide services according to the NOFA Standards to customers who ask for organic.
5. Established a web site, www.organiclandcare.net where visitors can download a pdf version of the brochure, locate an accredited land care professional in their area and order publications.
6. Presented over 100 talks on organic land care to professional organizations, conferences, garden clubs, libraries and other venues.

The committee has distributed close to 20,000 copies of the Organic Land Care brochure. The Standards are now in their third edition with about 1,000 copies sold all over this country, in Canada and Europe. Cornell Cooperative Extension purchased copies of the Standards for use in its educational programs on Long Island. The Standards have been endorsed by a number of environmental and conservation organizations. The committee was honored with a Green Circle award by the Connecticut Department of Environmental Protection. The program and its graduates were featured this spring in the regional magazine People, Places and Plants and in the Hartford Courant.

The Organic Land Care Program has brought new faces into NOFA’s and provided workshops at the regional summer and winter chapter conferences and introduced NOFA to a wider audience. NOFA New Jersey is working to bring some of this program to its state. We have also been asked to present the course in New Hampshire and Pennsylvania and for the second year will provide a workshop at MOFGA’s Ground Fair.

The course and accreditation program has attracted a wide variety of professionals, ranging in age from 18 to over 60 years old. Students have come from large and small firms, old established ones and startups. In addition to landscapers, landscape architects, town employees, sanctuary managers, educators and land trust employees have taken the course.

We’ve just graduated our third class of organic land care professionals—close to 80 folks attended the 5-day course in Massachusetts or Connecticut. We are always impressed with the dedication and passion these folks have for learning and applying organic practices in the design and maintenance of lawns, gardens, and public spaces. There were 55 new accredited organic professionals from this year’s class.

Thanks to many, many hours of volunteer time and our part time program coordinators, Bill Duesing in Connecticut and Marilyn Castriotta in Massachusetts, we have made tremendous progress since the committee began four years ago, and our work is now getting a lot of attention throughout the northeast. We are being asked to expand our educational efforts with towns, homeowners, civic organizations, and landscapers.

At our annual weekend retreat in January we focused on strategic planning, particularly on how to expand the program and raise money to support the increased demand for our work. We developed a five-year plan to:
1. Establish a network of model sites throughout both states that will demonstrate the benefits and efficacy of organic land care
2. Expand our public relations efforts to include publishing articles in popular media and distributing educational and resource information.
3. Support accredited professionals through program publicity, a professional network, and services such as up-to-date information on products and materials
4. Work collaboratively with municipalities to expand organic practices on municipal properties (schools, athletic fields, public parks) and develop a resource manual for organic maintenance of town properties
5. Provide educational opportunities for citizens and develop a resource manual for homeowners
6. Expand the organic lawn workshops for professional landscapers and ground maintenance staff throughout both states
7. Develop garden center displays and store manager training focused on organic products

And we’ve refined our mission, which is “To extend the vision and principles of organic agriculture to the care of the landscapes where most people live, work, and carry out their daily lives.” We achieve this by educating land care professionals and the general public about the virtues of organic land care and about practices which maintain soil health, eliminate synthetic pesticide and synthetic fertilizer use, increase landscape diversity and improve the health and well-being of the people and web of life in our care.

If you are interested in supporting the Organic Land Care Program, or in volunteering on the committee, please contact Bill Duesing at (203) 888-5146 or through the web site, www.organiclandcare.net
NOFA Organic Handbooks
Getting Written, Printed

by Jonathan von Ranson

Ten authors are at work on (or have already finished) the ten books of the NOFA Organic Practices Handbook series. The authors, all farmers with strengths in researching and writing, are the brains and backbone of the manuals project, which is sponsored by the NOFA Interstate Council with major financial help from SARE and additional financial help from NOFA/Mass and the Interstate Council itself.

“This has developed into a spirited, high-quality literary venture,” says Jonathan von Ranson, the project’s coordinator and editor. “I’m really enthusiastic about it!” He said the books are “getting the best current farming practices in the Northeast presented in what I think is a pleasing format, with Jocelyn Langer’s distinctive illustrations and very readable prose.” The 90-100-page volumes “are going off to the printer, one by one,” he said.

The first two, Organic Weed Management and Organic Soil Fertility Management, are already available for purchase. Joining those will be the other eight handbooks, shown with their approximate publication date. They are/will be available through most state chapters or the NOFA Interstate Council website, www.nofa.org. Here’s the complete list:

- Organic Weed Management, Steve Gilman, current
- Organic Soil Fertility Management, Steve Gilman, current
- Vegetable Crop Health: Helping Nature Control Diseases and Pests Organically, Brian Caldwell, May 2004
- Whole-Farm Planning: Ecological Imperatives, Personal Values and Economics, Elizabeth Henderson and Karl North, June 2004
- Soil Resiliency and Health: Crop Rotation and Cover Cropping on the Organic Farm, Seth Kroek, July 2004
- Compost, Vermicompost & Compost Tea: Feeding the Soil on the Organic Farm, Grace Griswold, August 2004
- The Farmer’s Guide to Organic Marketing and Community Relations, Rebecca Bosch, September 2004
- Organic Grower’s Guide: Humane and Healthy Production of Eggs and Poultry, Karma Glos, October 2004
- The Wisdom of Plant Heritage: Organic Seed Production and Saving, Bryan Connolly, February 2005
- Making Milk and Dairy Products Organically, Sarah Flack, February 2005

A manuals committee, consisting of Bill Duesing, Steve Gilman, Elizabeth Henderson, Julie Rawson and Jonathan von Ranson hires authors and illustrators, and reviews manuscripts. For each book, farmer-reviewers with special expertise in the subject area contribute their assistance, as do scientific reviewers, mostly from the academic community.

Taste! Organic Connecticut

by Bill Duesing

Celebrate the harvest this year at the 3rd Annual Taste! Organic Connecticut, to be held Sunday, September 12, 2004 from 10 a.m. – 4 p.m. at Topmost Herb Farm in Coventry, CT. The event (co-sponsored by the Certified Organic Associated Growers, Willimantic Food Co-op, and the Connecticut chapter of the Northeast Organic Farming Association) will feature a Fall Festival with something to appeal to everyone. There will be an organic farmers market, eight educational workshops, kids’ entertainment, craft vendors, music and of course the freshest, tastiest organic food to be found.

Workshop topics tentatively include Organic Land Care, Basic Organic Gardening, Growing Garlic, Seed Saving, Cooking and Preserving the Harvest, Backyard Chickens, Making Compost and Weed Walks.

Come celebrate this time of maximum abundance on Connecticut’s organic farms. Mark your calendars today for September 12th, and join in the fun at Topmost Herb Farm, 244 North School Road, Coventry, CT. The $3 per person admission fee for everyone between 12 and 80 years old covers parking, workshops and music. For more information, call 203-888-5146, email ctnofa@ctnofa.org or visit www.ctnofa.org. No pets, please.
**Vermont**

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Office Manager: Stephanie Meyers, info@nofavt.org

Ag Education & VT FEED Coordinator: Abbie Nelson, abbnelsen@aol.com

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**NOFA Interstate Council**

* indicates voting representative

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- **Mary Blake**, P. O. Box 52 Charlton Depot, MA 01005 (508) 234-4560 email: blakem_2001@msn.com

- **Larry Pletcher**, PO Box 204, Warner, NH 03278, (603) 456-3121, lpletcher@conknet.com

- **Elizabeth Obelenus**, 22 Keyser Road, Meredith, NH 03253, (603) 279-6146, lpletcher@conknet.com

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- **Jonathan von Ranson**, Manuals Project, 6 Locks Village Rd., Wendell, MA 01379, (978) 544-3758, Email: Commonfarmer@crocker.com

- **Paul Kittredge**, Webmaster, 1884 Columbus Rd. NY #415, Washington DC, 0209-206-3425, Paul@asadaya.com

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- **Camilla Roberts**, 1215 VT Rte 12, Woodstock, VT 05477 (802) 434-5420, email @edsuspenders.com

- **Fritz & Pat Yohn**, In the Woods Farm, 51 Edwards Lane, Charlton,RI 02813 (401) 364-0500, fpyohn@earthlink.net

- **Enid Wonnacott**, 4 Park St., Suite 208, Binghamton, NY 13905, (607) 724-9851, fax: (607) 724-6515, email mfaber5@yahoo.com, or www.nofany.org

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**NOFA Membership**

You may join NOFA by joining one of the seven state chapters. Contact the person listed below for your state. Dues, which help pay for the important work of the organization, vary from chapter to chapter. Unless noted, membership includes a subscription to The Natural Farmer.

Give a NOFA Membership! Send dues for a friend or relative to his or her state chapter and give a membership in one of the most active grassroots organizations in the state.

**Connecticut**

Individual/Family: $35 to $50, Business/Institution: $100, Supporting $150, Student (full-time, please supply institution name) $25

Contact: Join on the web at www.ctnofa.org or mail to CT NOFA, PO Box 135, Stevenson, CT 06491, Contact Bill Duesing at (203) 888-5166 or ctnofa@ctnofa.org

**Massachusetts**

Individual $30, Family $40, Supporting $100, Low-Income $20

Contact: Membership, 41 Sheldon Rd., Barre, MA 01005 (978) 355-2853, Contact: Mayra Richter, NOFA-MA, P O Box 886, Pennington, NJ 08534, (609) 737-6848, jack@mhof.net, Julie@mhof.net

**New Hampshire**

Individual: $25, Student: $18, Family: $35, Supporting: $100, Basic* $15, Contact: Elizabeth Obelumus, 4 Park St. Suite 208, Concord, NH 03301, (603) 224-5022, nofanh@inniwe.com

**New Jersey**

Individual $35, Family/Organizational $50, Business/Organization $100, Low Income $15

Contact: P O Box 886, Pennington, NJ 08534-0886, (609) 737-6848, certify@nofanj.org

**New York**

Student/Season/Limited Income $15, Individual $30, Farm/Family/Nonprofit Organization $40, Business/Patron $100. Add $10 to above rates to include subscription to The Natural Farmer.

Contact: Mayra Richter, NOFA-NY, P O Box 880, Cobleskill, NY 12043, Voice (518) 734-5495, Fax: (518) 734-4641, office@nofany.org, www.nofany.org

Contact: Membership, NOFA RI, 51 Edwards St., Newport, RI 02840, (401) 847-6970, Email: Camilla Roberts, 1215 VT Rte 12, Woodstock, VT 05477 (802) 434-5420, email @edsuspenders.com

**Rhode Island**

Student/Season: $20, Individual: $25, Family $35, Business $50

Contact: Membership, NOFA RI, 51 Edwards Lane, Charlestown, RI 02813 (401) 364-0650, fvohr@direcway.com

** Vermont**

Individual $30, Farm/Family $40, Business $50, Sponsor $100, Sustainer $250, Basic $15-25

Contact: NOFA-VT, PO Box 697, Richmond, VT 05477, (802) 434-4122, info@nofavt.org

*does not include a subscription to The Natural Farmer

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**Calendar**

Saturday, June 5, (rain date June 12): Introduction to Sideline Beekeeping, 9:00 a.m. - 12:30 p.m. The Challenges and Successes of Chemical Free Beekeeping, 1:00 - 4:30 p.m. , Deerfield, MA, For more info: 413-243-6515, email mfaber5@yahoo.com, or www.nofanj.org

Sunday, June 20: Farm Tour, Star Light Gardens, White Gate Farm and several others, Durham, Connecticut. For more info: for visit www.ctnofa.org or 203 888-3146

Friday, June 25 – Sunday, June 27: Conference on Local Currencies in the 21st Century, Bard College, Annadale on Hudson, NY. For more info: 413-526-1737 or efsoociety@smallisbeautiful.com

Saturday, July 10: Sustainable/Alternative Living (strawbale, off-grid home) Tour, Town, Ashfield, MA. For more info: 413-243-6515, email mfaber5@yahoo.com, or www.nofanj.org

Saturday, July 31: Managing and Marketing Organic Farm Products at Roadside Farmstands, Granby, NY. For more info: 413-243-6515, email mfaber5@yahoo.com, or www.nofanj.org

Thursday, August 12 and Friday, August 13: NOFA pre-conference - Successful Systems in Horticulture with Eliot Coleman, Amherst, MA. For more info: 978-355-2853, julie@nofamass.org, or www.nofamass.org

Friday, August 13 – Sunday, August 15: 30th Annual NOFA Summer Conference and Annual Meeting, Amherst, MA. For more info: 978-355-2853, julie@nofamass.org, or www.nofamass.org

Friday, August 20 and Saturday, August 21: 4th annual Northeast Organic Dairy Producers Alliance Field Days, Westfield and Hyde Park, VT. For more info: Lisa McCrory 802-234-5524, lmcrrory@together.net, or www.nodpa.org, www.nofay.org

Saturday, August 28: Growing Raspberries Organically, Concord, MA. For more info: 413-243-6515, email mfaber5@yahoo.com, or www.nofanj.org

Friday, September 17 and Saturday, September 18: Sally Fallon seminars on Healthy Traditional Diets, Huntington, NY. For more info: 202-333-4325 or www.WestonAPrice.org

Saturday, September 18: Cover Crops and Soil Fertility, Easthampton, MA. For more info: 413-243-6515, email mfaber5@yahoo.com, or www.nofanj.org

Saturdays, September 18, 2004 - June 26, 2005: A one year part-time (eight Saturday workshops and a final one-week intensive) introduction to Biodynamics, Chestnut Ridge, for more info: 845-322-5020 ext.20, info@pfefcenter.org, www.pfeefcenter.org


Wednesday, October 20 and Thursday, Oct. 21: Setting the Table: Tools and Techniques for a Sustainable Food System conference, Burlington, VT. For more info: for fix www.uvm.edu/~nesare
Rosaly Bass, New Hampshire organic farmer, weeds one of her long rows of lettuce. She cultivates 16 acres of her 150-acre farm, much of it in greens - of which she sells hundreds of pounds a week at her farm stand and to wholesale buyers.

News, features and articles about organic growing in the Northeast, plus a Special Supplement on

Organic Greens