Getting Ready for the Revised Organic RULE

by Elizabeth Henderson

By the time this article appears in print, the National Organic Program (NOP) of USDA may have released the revised version of the Organic Rule for the Organic Food Production Act of 1990 - all 600 plus pages minus the columns! The NOP is outpacing the NOP staff’s responses to our 275,000 comments on their earlier rule, and their justifications for the decisions they have made in the revised version. While this might make entertaining bathroom reading, we should focus our attention on the Rule itself. We all need to read this version slowly and carefully to assess whether or not we can live with it.

Once again, there will be a comment period of 45 to 120 days, depending on how loudly we squawk. The NOP will then make revisions and issue a Final Rule. They will also complete the writing of their Operations Manual, a much more detailed set of documents that will govern the day-to-day running of the NOP.

So what can we expect? Both Kathleen Merrigan, head of the Agricultural Marketing Service (AMS), and Keith Jones, head of the NOP, have stated publicly that this rule will not be perfect. Kathleen Merrigan has used the figure 80% of the expectations of the organic community. From Secretary of Agriculture Glickman’s remarks shortly after the 275,000 comments, we can be reasonably sure that the NOP will not burden organic agriculture with the big three - sewage sludge, GEO/GMOS and irradiation. In writing its revisions, the NOP staff has reportedly referred to the text of the American Organic Standards (AOS), ratified last fall by the Organic Trade Association (OTA) and approved by most of the existing organic certification programs, including the NOFAs.

The troublesome points in the new Rule will probably come where the organic community does not have consensus. Unless we negotiate hard within our community, the differing interests of farmers, processors and consumers could lead to serious splits and nasty in-fighting. Some of the hottest current discussions swirl around the use of synthetic ingredients in organic processed foods, requiring pasture for all dairy herbs, and the conditions for transitioning dairy herbs to organic management. There could also be trouble where the AOS and the National Organic Standards Board (NOSB) recommendations have gaps, such as the lack of detail on genetically engineered materials in feed additives, manure, drift tolerance, and the certification of wild foods. Perhaps the toughest issue for the entire organic community is whether USDA defines its role as chief certifier or accreditor of existing certification programs. In the past, Kathleen Merrigan has been very vocal in warning certifiers that the NOP will turn them into agents of the federal program. The international norm strictly separates the role of accreditor from programs that perform certification. The rule allows for any testing to be performed by any testing facility, which may lead to contamination from drift, should there be some mechanism for compensating the farmer.

3. Genetically Engineered Organisms. Organic consumers assume that organic is GEO/GMO free. The difficulty with this is that it may be very hard to deliver. There is tremendous potential for pollen drift and seed contamination. Testing needs to reflect reasonable existing conditions in the field with regards to drift. Funding for any testing must come from the manufacturers of GEO/GMOS, and they, not the farmers, should be liable for drift. In addition, if a farm’s crop cannot be sold due to contamination from drift, there should be some mechanism for compensating the farmer.

4. Strengthen the public-private partnership. The purpose of the national organic standards included in the NOPA is to serve USDA, as its role as accreditor, as the basis for the evaluation of the certification programs. The Rule should maintain NOSB’s role and authority in

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NOFA Summer Conference

By Dre Rawlings

Keynoting the 2000 Annual NOFA Summer Conference and Celebration of Rural Life will be Eliot Coleman (featured on the cover of this journal six months ago). He is the author of The New Organic Grower and Four Season Harvest. Coleman has contributed chapters to three scientific books on organic agriculture and has written extensively on the subject since 1975. He is a market gardener in Maine and designs tools for Johnny’s Selected Seeds. With his wife Barbara Danrosch, Eliot hosts the TV series Gardening Naturally. As well as delivering the keynote speech Friday night, August 11, Eliot will also present a workshop on Saturday, August 12.

Brainstorming together over the past 2 months, the members of the Summer Conference Committee 2000 have covered some exciting ground. The theme of next summer’s conference will be ‘Feeding the Soil, Feeding the Soul’. The concept was Stan Ingram’s, translated into a beautiful logo by Chris Rawlings.

Let’s talk entertainment! We’re changing the schedule a little bit next year. We’re planning to have the contrarondance on Friday night. We will hold it in the Red Barn and environs, weather permitting, integrating the Get-Acquainted Party and the dance. We’re also inviting back the Hot House Zydaco Band - organic music at its sizzling best! More movies will be shown this summer, and we’ll have them running continuously! We are working to secure a room to screen movies during workshop hours as well as in the evening. This will give attendees the opportunity to watch a movie if there isn’t a workshop they are interested in during any given time slot. ’Ancient Futures’, the story of Ladakh and its people, ‘The Gift’, detailing the mission of the Heifer Project, and ‘Rayoni’, a Brazilian aborigine’s struggle with “progress”, are just a few excellent selections we have lined up.

The debate this year will be on: “Can Local Organic Agriculture Feed the World?” You’ve heard the statistics: demand for organic grows 20% per year in the developed nations. Will the supply be there for those who can afford it? On a larger scale, there are now over 6 billion of us on the planet. Who can do a better job of feeding us all, local farmers or Cargill? Are the opponents of the organic movement right about us? Are we just an alternative? A trend? Or are we creating the knowhow for intensive, practical, and sustainable food production wherever we live? What’s the message for the next generation of farmers: “Get Big or Get Out” or is “Small both Bountiful and

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Flowers for Market?

I remember when we first moved to our farm and Julie planted beds of flowers throughout our newly plowed garden. I gave her bit of trouble about it. I was pretty big on being "practical" back then, and generally figured that if you couldn’t eat it, wear it, or use it up, it wasn’t of any value. Flowers just sat there looking pretty — perhaps smelling good too. With four little kids, a house to build and no visible means of support, we were struggling just to keep our heads above water. I recall arguing, with little enough time to spend on luxuries.

When Julie later wanted to expand our production and, looking to match crops and markets, hit upon bouquets as part of the mix, I again questioned whether people would actually spend hard-earned money to buy flowers. In fact, I still continue to be amazed that people will spend more to buy flowers than food. But experience is a hard teacher to ignore. Over the years I've come to realize that people hunger for a touch of beauty as much as for food.

Most TNF readers are aware of the international nature of the food industry, and of the fact that Northeastern organic farmers are carving out a small but secure niche for local, fresh product. Much the same is true in the floral world. It is hard to believe, but just as you can ship a California lettuce to Worcester, Massachusetts, and undersell a farmer 30 minutes away, so you can ship in the makings for bouquets from one of a dozen places and out-compete local growers.

I talked recently with the owner of one of the largest greenhouse floral operations in Central Massachusetts. He was shutting down his acres of production and sounded like the owner of a shoe factory in 1939, a Connecticut Valley grain grower in 1839. He had been driven out of business. Technologies of cheap transportation, combined with regional variations in labor rates and other production costs, favored imports over local flowers.

This issue of The Natural Farmer is an attempt to put a little hope back in the worlds of Northeastern farmers. There are actually lots of opportunities, particularly in the field of flowers, for our growers. Cut, bunched flowers are selling for very respect-able prices, and our ability to deliver quality, fresh bouquets that last a week or longer is quite attractive to most retail buyers. Landscape designs, bedding plants and flowers and foliage lend themselves to creative arrangements giving us chances to expand our season and deliver floral value beyond our natural months of production.

New varieties also give us an edge. It takes a long time for wholesale operations to gear up the systems needed to try out, mass produce, and ship new flowers. But local, small growers can trial, market, and evaluate new products in one season, holding the market for a year or two until the big boys catch on.

Growing flowers isn’t for everyone. But it has proven to be one way to make agriculture work in the northeast. CSAs find flower bouquets attract and hold shareholders, farmers markets report they bring customers to your booth, those selling to the restaur-ant, wedding, and gift trade feel flowers return a good price for one’s labor. We dedicate this issue to those growers pioneering in this new area, raising Flowers for Market.

## Advertise In The Natural Farmer

Advertisements not only bring in TNF revenue, which means less must come from membership dues, they also make a paper interesting and helpful to those looking for specific goods or services. We carry 2 kinds of ads.

The NOFA Exchange - this is a free bulletin board service for members of TNF subscribers. Send in up to 100 words (business or personal) and we’ll print it free in the next issue. Include a price (if selling) and an address or phone number so readers can contact you directly. If you’re not a NOFA member, you can still send in an ad - just send $5 along too! Send NOFA Exchange ads directly to The Natural Farmer, 411 Sheldon Rd., Barre, MA 01005 or (preferably) E-mail to JACKKITT@AOL.com.

### 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 Justine Johnson, 145 LaPlante Circle, Easthampton, MA 01027 and enclose a check for the appropriate size. The sizes and rates are: Flora-page (3 1/2" tall by 10" wide) $240 Half-page (1 1/2" tall by 10" wide) $125 Third-page (1 1/2" tall by 6 1/2" wide) $65 One-page (1 3/4" tall by 6 3/8" wide) $30 Business card size (1 1/2" tall by 3 1/8" wide) $12

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Prices are for camera ready copy. If you want any changes we will be glad to make them - or to type set a display ad for you - for $10 extra. Just send us the text, any graphics, and a sketch of how you want it to look. Include a check for the space charge plus $10.

### 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.

#### Deadlines:
- You should receive your ad copy one month before the publication date of each issue. The deadlines are: January 31 for the Spring issue April 30 for the Summer issue July 31 for the Fall issue October 31 for the Winter issue

#### Contact for Display Ads:
Send display ads with payment to our advertising manager, Justine Johnson at 145 LaPlante Circle, Easthampton, MA 01027. If you have questions, or want to reserve space, contact Justine at (413) 527-1920 or JSL145@aol.com.

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The Natural Farmer cannot investigate the claims of advertisers and we don’t vouch for anything advertised here. Readers are expected to exercise caution when inquiring about any product or service.

Differ NOFA chapters have different standards for fertilizers, for instance, and a product acceptable in one state may be prohibited in another. Please check with your chapter when in doubt. Remember, however, that advertisers are helping support the paper and, when appropriate, please support them.
Dear Jack,

I've enclosed a check for $24 for 8 additional copies to the Kittredge family at clearly for each of the areas of concern.

I bet if you advertised your books continually in the TNF, you could afford to! Our rates are dirt cheap for the product we deliver — an intelligent audience which reads each issue thoroughly (Help me out here, guys? You do, don’t you?). From what I’ve seen, NOFA members still have home libraries. Studying their behavior at our summer conference, I believe they buy more books per capita than any other demographic except scholars and, perhaps, teenagers. They also live in small towns and usually serve on the local library book acquisition committee. So how can you go wrong?

Jack

Dear Jack & Julie,

Once again, thank you for the great work with The Natural Farmer. In particular, I want to commend Jack for the excellent job putting together the recent winter issue on “Food Safety”. It’s a heavy and thought-provoking one for sure, and the substantial amount of research involved is obvious. Thanks very much for keeping us informed.

Luis Mendes, Bristol, RI

Dear Jack,

Thank you very much for the excellent articles in the Food Safety issue of The Natural Farmer! I really appreciate all the work you did researching, distilling tons of information, and writing it all up so clearly for each of the areas of concern.

Sharon Devine, Massachusetts

To the Kittredge family at The Natural Farmer,

I’ve enclosed a check for $24 for 8 additional copies of the Winter TNF. It is such a concise, informative, non-sensationalized overview of the issues surrounding the American food system that I am sending copies on to each of my brothers (5) and sisters (2), most of whom have children. I am hoping that the information contained in this issue will strongly encourage them to seek out and patronize their local organic farms. Thank you for the excellent coverage.

Hi Jack,

That last issue was unbelievable! You wrote a book. Seriously, I think it could be edited and published as an organic “safe food guide”. Great work!

Brian Caldwell, Owego, NY

Jack replies:

Thanks, all who wrote. I did put a lot of energy into the Food Safety issue, and I really appreciate hearing from those who found it helpful. NOFA-New York is republishing most of the issue along with their list of certified farms, and a NOFA/Connecticut member is printing up copies of the centerfold (with the pictures in color) as a poster to hang in CSA distribution centers, food coops, etc. (Anyone interested in buying a copy for your own CSA wall or whatever should get in touch with me and I’ll pass your name along.) I am entirely sold out of copies of that issue, but am happy to have chapters reprint it if they think it would be useful. The topic is certainly vital to our communities, and is especially relevant now that (witness the recent television show “20/20” and its smear of organic food) agribusiness interests are counterattacking and trying to put us on the defensive. Any thinking person, when given the truth about our current industrial food system, will recognize that seeking out organic is the only way to avoid most of these risks.

Dear Jack,

I was very pleased to receive the winter edition of The Natural Farmer. It is filled with interesting material, and your efforts are to be commended. However, I was disappointed to find my article edited to exclude what I feel are key points of proactive information for organic producers. Specifically, strategies were mentioned which could be effective for certified organic sprout production. Without this information, the article reads to me as being far less useful.

I was glad to be able to offer my ideas, but I do wish that a complete set of those ideas had been printed - or at least that I had been consulted about the proposed revision, prior to printing.

I’m attaching the article again, so you can see the difference in my original text from that which was published.

David Gould

Jack replies:

David, I’m sorry, the omission of a section of your article was not intentional. I am not sure where the mistake occurred, but I am reprinting the full section here italicized (omitted part is also in bold):

Still, there is no question that microbial control is an important issue for all sprout producers. Fortunately there are methods which have proven themselves effective for certified organic production.

Facility cleanliness and good handling and sanitation practices are essential, as is a good and plentiful supply of potable water. Starting with clean equipment, clean personnel, and (as much as possible) clean seeds themselves, are necessary precautions. Frequent rinsing of seeds is perhaps the best way of all to ensure that microbial contaminants are freed from seeds. Vigilance to cleanliness must be practiced. This is all possible within the confines of materials and practices allowed by organic production standards for processed foods.

Within organic standards, there are materials available to help reduce risk of microbial proliferation. (Remember, no treatment alone is an absolute assurance.) The International Sprout Growers Association recommends a treatment of 6% hydrogen peroxide (H2O2), or a heat treatment at 135°F for 5 minutes (this gets tricky, maintaining temperature and not losing viability of the seeds). Another possibility might be peroxyacetic acid (also called peracetic acid or periacetic acid), no higher than 80 ppm (federally mandated limit). However, it must be stated very clearly that these above materials are approved by organic standards as generic materials alone, and that some commercial formulations may contain stabilizers or other "inert" compounds which make them prohibited for use in certified organic systems.

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Blow Your Own Horn!

Certified organic goats’ milk and cheese business looking to supply Restaurants, CSA’s, Farmers Market’s etc. Pigeon Cove Farm is a small organic farm nestled away in scenic Rockport, Mass. Owned and operated by Greg and Becky DeCaro, the farm produces a delicious fresh chevre goat cheese and tasty goat yogurt from their herd of purebred Nubian does. Everything from hand milking to processing and packaging is done solely by Greg and Becky on the premises. Call us at 978-546-3574 or visit us at 64 Curtis Street, Rockport, MA 01966 for more information.

Assistant Grower and farmhands needed at Still Point Community Farm, Amenia NY. Assistant Grower works on a team with the farmer and will be responsible for field operations (soil preparation, fermentation management, fallow land management, etc.) and general vegetable production work (planting, cultivating and harvesting). Room, board, $300/month stipend provided, previous experience with machinery required. Farmhands work in all aspects of CSA production, but no experience is required; stipend is $300/month. All farmers live in family farmhouse, sharing cooking and cleaning (vegetarian meals). Contact Nathaniel at (914) 735-8010 or farmanet@mhawk.net.

Farmer needed to work with farm manager to operate 275 acre college working farm and assist in the management of the organic garden. The college garden produces vegetables for campus dining. The college offers educational opportunities in sustainable agriculture and offers environmental education programs. The college seeks an energetic individual with a strong interest in agriculture and a desire to work in a collaborative and supportive environment.

Organic farm for sale or rent. Located in Central New York’s Mohawk Valley. Ideal for small rumi- nant enterprise, organic vegetables, and/or apples/vegetable sales. Good market already established. Excellent, with abundant water. Numerous marketing options - wholesale, and retail through area farmers markets, CSA, restaurant, on-farm sales to ethnic communities. Up to 200 acres available + adjoining lands to rent. Excellent opportunity for beginning or experienced producer interested in expanding. Doug Bowne, 354 Lynch Rd, Little Falls, NY 13365. (315) 866-1403, email: EMBOW@ctnet.com

Angelica Organics seeks a field manager: training will take place in the 2000 season, full responsibilities beginning in 2001. We are an 80 member biody- namic vegetable and herb farm located in north-central Illinois. We are entering our 11th year growing organically and our 5th year as a CSA. We manage 80 acres, 25 of which grow the vegetables that feed over 1000 families in the Chicago area. Can expect to have at least 2 years of free work experience. Beginning salary - $1,000/mo + room & board. Review the web at http://www.AngelicaOrganics.com for more information, or e-mail CSA@AngelicaOrganics.com for a full job description.

Mountain Dell Farm seeks apprentice for 2000 season. May through November. Private cabin, board, plus good salary for 50 hour weeks. Must know how to work with child/child friendly. Duties include picking, packing, weeding and transplanting. This is our eleventh year as a NOFA-NY certified organic vegetable farm. Other interests include yoga, medicinal herbs, politics, swimming in the pond, rafting the Delaware River, and rural parties. Mark Dunau or Lisa Wogwisch, Mountain Dell Farm, RD1, Box 286, Hancock, NY 13783. 607-467-4034, e-mail at mldnaun@ny.tds.net.

Lindentree Farm, a 140 member CSA forty minutes west of Boston and ten minutes from Walden Pond, is looking for two hardworking, enthusiastic farmworkers to join our crew for the coming season. We farm 8 acres. Responsibilities include fieldwork and a local farmers’ market. Experience on farms is helpful. Send resumes to: Ari Kutz, 10 Old Orchard Road, Lincoln, MA 01773, or call 781-259-1259.

Having recently purchased a former farmette in Hingham Mass., I am seeking someone who would like to revive it. My sense is small fruits, but am open to suggestions. Beautiful barn on premises to store equipment. Please call Christina at 781-740-2969 (evenings) or 617-348-2362 (days). Email: cdevir57@aol.com

Full time, part time and internship positions available at the Ryland Inn, NOFA-NJ certified organic garden. Work will take place from May through September. 2000. Reasonable pay or stipend, delicious food, wonderful people, and a beautiful garden full of vegetables, fruits, flowers and herbs. Learn all aspects of ecological/biological gardening. Contact Chip Shepherd at shepherd@blast.net or The Ryland Inn, POBox 284, Whitehouse, NJ 08888.

The Community School is looking for a garden manager and interns to grow organic vegetables in Tamworth, NH. Students help garden, manage timber and do research on the farm. Housing, $400 a week, possible long range future. Job starts in late April or early May and finishes by mid-October. Engages all garden work, supervising interns and high school workers and coordinating with summer campers. Must have 2-3 yrs CSA with weekly harvests, daily farmstand. Need year round living experience on a working farm, adult experience on organic farm, some management experience, workaholic tendencies. Please call Martha Carlson at (603) 735-7270 or send resume and references to Community School, 1164 Bunker Hill Road, South Tamworth, NH 03883.

Entertainers needed for MOFGA Common Ground Fair, September 22 - 24 in Unity, ME. Folk and other music, storytelling, poetry, puppetry, still walking, dancing, magic, comedy, juggling, etc. all appropriate. Performers go on all weekends. Limited entertainment budget available, but volunteers given preference. Many performers got their first opportunity before large audiences at Common Ground Fair. Contact fair at PO Box 170, Unity, ME 04988, (207) 568-4142, fax: (207) 568-4141, cgc@mgofga.org, www.mogfa.org.

For Sale: Planet Jr. cultivator, $50; Horse-drawn items: Pioneer spike-tooth harrow, $100; adjustable spike-tooth cultivator, $35; Farm-made drop plow, $25; Contact Luis in RI, (401) 253-7537 (after 7 pm).

Assistant Grower and interns needed. Phillips Bridge Farm Project creates a CSA feeding 200 families, including at least 10% low-income, and offers educational opportunities in sustainable growing. Assistant grower and interns will help plant, cultivate and harvest 5 acres of organic farms, and work in the education program. Asst. grower earns $200/week plus health benefits and half CSA share. Interns get $100/week plus half share. To apply send letter, resume and names of 3 references to: Gail Baylor, Warren Moul, Grower, Phillips Bridge Farm Project, PO Box 1147, New Paltz, NY 12561, (914) 256-9108

Looking for a 1 - 2 bedroom apartment, prefer- ably on organic land. I am chemically sensitive and am searching for a possibility of living and working on a support network for chemically sensitive people; if you’re interested, please call above number.

Our first year! Heirloom and open pollinated vegetable and flower seeds, organically grown in northern Vermont for New England’s cooler climate. Available through May 31. For a catalog send $1 to Arethusa Seed Farm, PO Box 183, Bakersfield, VT 05441.

Horsepowered biodynamic farm CSA seeks farm families to join land trust/community farm. Share farm work evenly and develop your own skill/trade. Good modern facilities, and a multitude of recreational opportunities. At 1800 feet in elevation the star gazing is superb. Contact Ed Stockman at 413-634-5024.

Apprentice sought for 2000 growing season on diversified organic vegetable and berry grower. Learn all facets of organic vegetable and berry production. Only reliable persons with a strong interest in organic agriculture need apply. A five day September to October workshop, every week is important. Housing and all the vegetables you can eat, along with a weekly stipend, is provided. The natural, very rural setting provides a multitude of recreational opportunities. At 1800 feet in elevation the star gazing is superb. Contact Ed Stockman at 413-634-5024.

We are currently researching and working towards opening a kosher slaughterhouse in New York state. We wish to sell organically raised animals if we are able to find suppliers. If you can help us put in contact with producers of lambs and cows in the Northeast, we would greatly appreciate it. Miriam and Andre Gottlieb, Northeast Farms, yesolfa@csill.net.

Ready to go 2-5 - acres NOFA-NJ certified organic land is available in Montclair, NJ. There are 2 scenic and well-fenced-in areas that have been farmed for CSA and farmers markets over past 8 years, and 2 swales available. Interested individuals please call Sharon Rosenhaus at (973) 540-9017.

Farm manager and grower’s assistant needed for 25 acre organic farm, roadside farmstand, student run farm delivering produce to needy, forest fire- wood thinning, trail maintenance, maple sugaring and environmental education programs. Manager earns $22,000 for year-round full time work, housing and work-erly stipend. Assistant earns $375 per week. Apply with letter and resume to Land’s Sake, PO Box 306, Weston, MA 02493, (781) 893-1162.

Do you live in Northern NJ and need organic poultry or livestock feed? If you’re tired of driving to Pennsylvania for organic feed, let’s get together to pool our orders and see if we can’t get our feed delivered or a regular schedule. Call landl@earthlink.net.
Internship position at Wild Roots Farm. 110 acres diversified farmland, 5 acres organic vegetables grown for CSA. Homesteep with young orchard, swimming pond, chickens, Iceclandic sheep, highland cow and lish forest. Interests will have the opportunity to learn CSA marketing, organic vegetable production, off-the-grid living, blueberry anding and natural history. We are ten minutes from the Catskill forest preserve and 1/2 hour from Delaware River. Looking for two interns with a passion for learning experientially. Intern cabin, stipend and veggies. Amy and Wes Gillingham, 669 Cattail Rd., Livingston Manor, NY 12758, 914-439-4799

Organic Poultry Feed for sale. Prospect Hill Farm, 30 Prospect Road, Plympton, MA 02371, 781-582-8363 or Email Rebhs9194@aol.com


Asst. Farm Manager, Education/Outreach Coordinator and Interns needed for 16 acre Holcomb Farm CSA growing fruit and vegetables and providing educational activities for 200 households and Hartford, CT organizations serving lower income residents. Interns get $150 per week plus fresh vegetables and assistance with housing. Send resume and letter to: Hartford Food system, 509 Wethersfield Ave, Hartford, CT 06114, Email Hfoods@erols.com

Seeking an organic farmer for Worces- ter, MA farmers markets. We adhere to: “If you don’t grow it you can’t sell it.” We operate Monday and Friday at Main and Front Streets beside City Hall, and Wednesday at Foley Stadium parking lot on Chandler St. Our hours are 9:30 am until 2 pm each day. We start June 12 and end October 30. If interested, call Andy O’Keefe, market manager, at Deltagraphic Company, 1-800-448-0045

29 year old vegetable farmer seeking opportunity with established farm: production manager/assistant, crew manager, or partnership. Experience with tractors, greenhouses, staffing, wholesale deliveries, retail sales, and all aspects of commercial organic vegetable production. Highly developed work ethic and excellent references. Contact Mike at 802-951-3851.

Small certified organic farm seeks apprentice for 2000 season. Farm produces a wide variety of thess including seedlings, greenhouse toma-toes, 2-3 acres of vegetables and our own honey, eggs, wool and angora. Tasks to include working along with farmer in all facets of operation - planting, weeding, harvesting and attending busy farmers market. You can also learn how to cook on a woodstove, braid garlic, make pickles, jam and wreaths, and spin wool. Non-smoker gets her own living quarters (snug trailer), shares two meals a day, shower and laundry. Stipend of $125 for five days work, also paid NOFA conference registration and opportunity to attend various farm tours. Train to Boston minutes away. Women encouraged to apply! Call Jacqui at 978-874-0244

Internship opportunity: Certified organic 500 acre farm with goat milking, cheese making, 50 member vegetable subscription and a beef herd. All feed, including oats, rye, corn and hay are grown on premises. Housing available for 2 to 3 interns with a $75/week stipend plus produce. Berle Farm is located on the VT/NY border between Bennington, VT, and Hoosick, NY. The surrounding views are beautiful and the atmosphere is conducive to good times, hard work and learning. Flexible pre-arranged start/ end dates between April 15 and October 15, 2000. 518-658-3249, Berle Farm, PO Box 1, Hoosick, NY 12089

DirtyFingerNails - 3 day workshop learning the prin-ciples of growing, harvesting, and drying medicinal herbs on a working herb farm. Whether you have a small city garden or are interested in farming as a career, this workshop will provide you with invaluable information. For information on this and other programs, contact Healing Spirits Herb Farm and Education Center, Andrea and Matthias Reissen, 9198 Bl. 415, Avoca, NY 14809 (607) 566-2701, healingspirits@juno.com

Looking for a hardworking, energetic intern interested in working on and learning about an organic vegetable farm and growing CSA. Must have the physical ability to work long hours and an interest in sustainable agriculture. Will be involved in all aspects of the farm’s operation and participate in the CRAFT Intern Educational Program. Private room, farm vegetables and stipend. Work week 5 1/2 days April to November. Ol’ Turtle Farm is located at the base of Mt. Tom Reservation - great biking, hiking, water sports, educational opportunities and cultural activities. Contact Eileen, Ol’ Turtle Farm, 385 East St., Easthampton, MA 01027, 413-527-9122, olturtle@javanet.com

For Sale: Sears hand crank cream separator, in very good condition. Mark Nolt, 717-776-3417 (can UPS).

Organic farm seeks 1 full-time and 1 half-time worker for 4 acre intensive cut flower and salad farm located on Martha’s Vineyard. On site housing in converted barn with kitchenette, composting toilet and outdoor shower. Full-time job pays $175 weekly plus bonus if season is completed. Season runs May 1 thru September 30. Half-time position is 15 hours/week in exchange for tent-site. Also need full-time child care person - housing provided, too. Contact Rebecca Miller, North Tabor Farm, RR1, Box 334B, Chilnark, MA 02535, (508) 645-3311, Email: rmiller1@capecod.net

The greenhouses at the Natick Community Organic Farm are beginning to fill up with seedlings for spring planting. We are seeking interested volunteers to seed and transplant. You can learn about planting and get some sun in our cozy solar greenhouse, plus work with other local students and community members. If you are interested in volunteer- ing to seed or transplant come by NCOF on a weekday and ask for Lynda. Also, the farm, NOFA/Mass certified organic, will grow your seeds in our solar greenhouse for you. Contact Lynda Simkins, 508-655-2204, Route 16, So. Natick, MA

Small start-up farm in northern Vermont (40 miles from Burlington) seeking farm partner. House to share, southern exposure, pond, very beautiful land. I am focusing initially on vegetables and herbs, with micro-flocks of sheep, goats and layers. Longer term direction is berries, nuts, fruits. What are your ideas and interests? Share the joys, inspiration, and sweat of an emerging organic/biody-namic farm. Call or write: Julian Lewis, PO Box 82, Fairfield, VT 05455, (802) 827-9778
GE Soy Can’t Take the Heat

A University of Georgia scientist has found that hot climates cause the stems to split on Monsanto’s Roundup resistant soybeans, leading to crop losses of up to 40%. The worst losses correlated with the two hottest springs studied, when soil temperatures were reaching 40% to 50°C. This could be a blow to the acceptance of this technology in Latin America. 

source: Bi weekly News, December 4, 1999

Organic and Conventional Greens Compared on Nitrates

A study comparing organic and conventional nitrate levels in California-grown lettuce and spinach found that organic lettuce samples with nitrates exceeding the EU standard, but 83% of conventional and 33% of organically grown lettuce had nitrates above 30 mg/kg. The results seem to correlate with relative solubility of nitrates source used, as crops treated with bat guano (a highly soluble source of nitrogen) had higher nitrate levels than crops treated with compost. Soil characteristics also affected nitrate levels. source: The Cultivator, 17:1, 1999

National CSA Directory Published

The USDA’s Sustainable Agriculture Network has published a list of more than 450 US farms operating as certified organic farms - whether or not in transition or certifying organic farms - whether or not in transition or certifying Biodynamic status. Now, to avoid confusion, it will certify organic farms - whether or not in transition to Biodynamic - under the label “Aurora Certified Organic”, not Demet... source: Demet press release, December, 1999

Demeter Changes Name of Its Organic Label

The Demeter Association, Inc. has been granting Biodynamic certification since 1982. It also certified organic farms as “Organic,” however, if they used genetically engineered crops. A new “Aurora Certified Organic” label aims to clarify this. 

source: SAN press release, January 5, 2000

Gene Therapy Researchers Fail to Report 652 “Adverse Events”

Gene therapy is an experimental branch of medicine attempting to cure diseases by changing a patient’s genetic makeup. Being experimental, it is allowed to conduct research on humans only in extreme circumstances, or so-called “adverse events” to the National Institutes of Health. Now it appears that several hundred such events, including the deaths of 3 of the first 6 patients in one Harvard-affiliated hospital, were never reported. The scandal came to light following the death of 18-year-old Jesse Gelsinger in a University of Pennsylvania trial. According to the Washington Post, only 6% of “adverse events” involving gene therapy were properly reported, including some unexplained deaths. source: Washington Post, January 31, 2000

Frito-Lay Refuses GE Corn

Snack maker Frito-Lay, a subsidiary of PepsiCo, has told its suppliers not to use genetically engineered corn. The move is seen as a victory for Greenpeace and the Union of Concerned Scientists, which had been lobbying the firm to drop genetically modified organisms (GMOs). The Farm Bureau, however, criticized the company as “overreacting” to the “fear they are going to be boycotted” source: Associated Press, January 31, 2000

Whole Foods and Wild Oats Move to GE-Free Store Brands

Health food retailers Whole Foods Markets and Wild Oats have pledged to eliminate genetically modified organisms from their own-brand-store products sometime during 2000. These are the first US supermarkets to adopt this policy, although most European markets have already dropped certain genetically modified organisms from their own-brand-store products sometime during 2000. These are the first US supermarkets to adopt this policy, although most European markets have already dropped certain genetically modified organisms from their own-brand-store products sometime during 2000. These are the first US supermarkets to adopt this policy, although most European markets have already dropped certain genetically modified organisms from their own-brand-store products sometime during 2000. These are the first US supermarkets to adopt this policy, although most European markets have already dropped certain genetically modified organisms from their own-brand-store products sometime during 2000. 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British Future Bright for Organic Food

British organic demand has increased 40% a year despite premium prices, say analysts, and one in three British shoppers now purchases organic food. Some stores say 20% of all produce they sell is organic, and at one supermarket reportedly 50% of baby food sales are organic. Wales, too, seems on the bandwagon, having set a conversion target of 10% of all farmland by 2005. source: Eco Farm and Garden, Winter, 2000

Competition from our Friends to the North?

Canada’s Atlantic provincial governments recently commissioned a study that concluded that the Maritimes are missing an opportunity to supply large consumer demand for organic produce in New England. The report recommends learning from Quebec’s experience in promoting organic exports, as well as creating an organic certification program and an organic distributor. source: Eco Farm and Garden, Winter, 2000

Dancing Goats & Chicken Tractors: Sustainable Agriculture Grows in Mississippi

By Nan Johnson
(former apprentice at Natick Community Organic Farm, Natick, MA)

After decades of efforts by a few organic growers in Mississippi, it looks as though the Mississippi Department of Agriculture and Commerce is ready to lend support to small family farmers interested in starting certified organic operations. A recent meeting in Jackson, MS brought together not just state bureaucrats and county extension personnel but actual growers who are already following sustainable/organic practices, as well as researchers studying biological controls and growing beneficial-attracting crops for the South. Feedback for proposed organic standards (modeled on those of neighboring states) was invited. The presence of actual small family farmers was reassuring, and they were as articulate as any NOFA member in de-nouncing weakening of organic standards, while advocating costs for certification low enough to allow small growers to participate.

Meanwhile, I have had the privilege of organizing two organic workshops and one conference in the past two years (all volunteer efforts with a grant from a foundation in NY). NOFA’s own Dale Perkins was a keynote speaker at the very first conference, which drew a standing room only crowd (much to the amazement of the local county extension agent who served as our host). I now have a mailing list of over two hundred farmers, gardeners and consumers interested in sustainable agriculture. I got myself appointed to the Miss. State Extension Service Sustainable Ag. Committee in order to be a fighting watchdog for what extension services are doing with SARE and other monies (not much at all, from what I can tell), and also got involved with the Miss. Agribusiness Council’s Sustainable Ag. Group (yes, it is as awful as it sounds - how does promoting chemical turf farming sound for Mississippi’s future?).

This is a state governed both politically and economically by the big boys - cotton and soybean farmers, plus some rice. Beef production is popular too, but is not profitable or sustainable. I have been told it is a macho thing. For a small group of us to challenge the system is almost unthinkable, but we are doing it, with the support of the National Campaign for Sustainable Agriculture, Southern SARE, and others.

Throughout the year I speak with farmers across the state who say they are tired of farming with chemicals, tired of the whole agribusiness system, and are asking for alternatives - only to be told by extension that there are none, or “it can’t be done here”. If I can reach this many people just doing it part time as a volunteer, I suspect there are many more farmers and growers out there anxious to hear some good news. Each person trying to go into sustainable farming tells me they feel so isolated - that they are the only ones doing it. So it is a delight to start hooking people up to each other and to regional resources. For example, Jackson, MS is the interna-tional headquarters for The Stockman Grass Farmer (intensive pasture management system for grass-fed meat and dairy), yet few farmers (and no extension agents I have talked with) in Mississippi have ever heard of them!

Meanwhile, I have a part-time job teaching organic gardening in the public school systems in the Delta, where poverty is extensive. We have also started community gardens. This is funded by a grant from Tufts University in Medford, MA. My own 35 acre farm (Dancing Goat Farm) has been set up on a model similar to the Natick Community Organic Farm and last year we had several hundred young-sters and adults visit for short classes on topics ranging from composting to cover crops to dairy goats! I fit those visits in during my “spare” time and it has been wonderful to connect with so many rural residents who are still starved for connections to a diversified farm, however small. All of our farm animals: goats, chickens, rabbits, and ducks, have traveled to classrooms and libraries to “teach” composting, good nutrition or humane farm animal care.

So come on down, y’all! If you are interested in civil rights history, the blues, farm education, dairy goats, and sustainable agriculture, consider coming as an apprentice for a short term. We can offer room and board in our home, though no stipend, and probably the use of a vehicle, plus the experience of being on the cutting edge of organic agriculture in the land of cotton! We are not near any cotton fields, so you don’t have to worry about being sprayed! Call me at 602-473-9026 or e-mail: stewart@watervalley.net.

Human Genes to be Put in Cow Milk

The government of New Zealand is reportedly planning to put human genes into cow’s milk to make it more like human breast milk, and thus more palatable to human digestive systems. source: Eco Farm and Garden, Winter, 2000

Spring, 2000 The Natural Farmer
How Can Organic Vegetable Growers Increase Soil Organic Matter Without Overloading the Soil with Nutrients?

by Brian Caldwell
Cornell Cooperative Extension Educator
South Central NY Area Vegetable and Fruit Program

The problem

This is an issue that is just beginning to be recognized. It arises from a common practice among organic vegetable growers—that of applying compost or manure to vegetable fields nearly every year in order to fertilize crops and raise soil organic matter (OM) levels. While this is a beneficial practice in the short term, in the long run it can lead to over-fertilization and water pollution. The problem is similar to over-fertilization that occurs on livestock farms with insufficient land on which to properly spread their manure.

On most new land that is just being put into organic vegetable production, it is common and quite worth-while to apply a big “shot” of nutrients and organic matter through heavy applications of compost and manure. After the first heavy application, amounts can be reduced in subsequent years. However, manure or compost is still usually applied at a rate that will supply at least the current nitrogen (N) needs for the next crop, which means that excess phosphorus (P) and potassium (K) beyond the crop requirements will be added to the soil. OM levels and K levels build to moderate, then high or excessive levels. The soil is out of balance.

In fact, if manure or compost is added specifically to increase soil organic matter levels on which we can rely for many ororganic vegetable growers, then usually all nutrients will be added beyond crop requirements.

Let’s look at an example from my own farm. “Field 1” is a small field of about 1/5 acre which had been the farmer’s garden for many years before I moved to Hemlock Grove Farm in 1977. It had higher nutrient levels than our other fields. I have soil test data (Table 1) which show a period of 21 years, starting in 1978. I also have records of the nutrient-carrying materials I added to this field for 16 years, which can be extrapolated for the 21-year period, since I used similar practices over the whole time. Though the field is small, all data have been standardized on a per-acre basis for comparison.

<table>
<thead>
<tr>
<th>Year</th>
<th>Soil P</th>
<th>Soil K</th>
<th>Soil pH</th>
<th>Soil OM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>400</td>
<td>6.1</td>
<td>3.2</td>
<td>25</td>
</tr>
<tr>
<td>1981</td>
<td>37</td>
<td>400</td>
<td>6.0</td>
<td>3.4</td>
</tr>
<tr>
<td>1982</td>
<td>43</td>
<td>515</td>
<td>6.7</td>
<td>3.3</td>
</tr>
<tr>
<td>1983</td>
<td>685</td>
<td>7.0</td>
<td>3.7</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 1. Soil Test Data, Field 1

This data shows the problem. Soil nutrient levels are all in the high range after 21 years, which seems good, but if I continue the same practices, they will get too high. Phosphorus levels are already very high, and going up faster than anything else. (Cornell test values are on a scale that reads lower than typical values, so my current P level would probably be measured at over 5000 by most labs). High soil P does not hurt crops, but can contribute to water pollution. The problem is similar to over-fertilization that occurs on livestock farms with insufficient land on which to properly spread their manure.

Using guestimates as to the nutrient composition of the crop plants, but can contribute to water pollution. The problem is similar to over-fertilization that occurs on livestock farms with insufficient land on which to properly spread their manure.

An experimental method of increasing soil OM without heavy nutrient loading is to use high-lignin, relatively low nutrient OM sources such as wood chips. These interact in a limited way with the soil, because of their high lignin content and low surface to volume ratio, but do provide an excellent OM source over a long term. For example, a 15-year study in the 1950’s and 1960’s in which 10 T/A/year of hardwood chips was added to experimental plots of Honeoye silt loam showed that soil OM levels were dramatically raised, with some positive (and some limited negative) effects on vegetable crop yields. Little soil nitrogen was “tied up,” contrary to expectations. (G. R. Free, “Soil Management for Vegetable Production on Honeoye Soil with Special Reference to the Use of Hardwood Chips,” New York State College of Agriculture, Cornell University, 1971.)

Recently, Laval University, Quebec research on positive results from the use of chipped hardwood branch wood (“ramial”) was reported in the Maine Organic Farmer and Gardener magazine (Caron, Lemieux, and L’achance, “Regenerating Soils with Ramial Wood Chips,” 1998/2-3). The research investigated the influence of chipped hardwood on the soil. There is growing opinion from some soil scientists, notably Dr. Elaine Ingham of Oregon State University, that many of our agricultural soils are overbalanced toward bacterial, rather than fungal, populations because of the highly available nutrient sources we use. There may be other benefits to favoring soil fungi—perhaps establishing large and varied fungal populations in our soils could also help reduce fungal pathogen populations.

So, what are the take home lessons here? Mine are:

1. Focus on raising the soil and light-feeding crops in your rotation on “mature” fields.
2. Reduce tillage and keep soil covered with cover crops and mulches.
3. Don’t waste nutrients by excessive manure or compost applications. This is particularly important if you have a water or ranage. Rely more heavily on getting nitrogen from legume cover crops and soil and from manure or compost.
4. If you want to increase soil OM levels further, try rotating cover crops and sod crops in your fields in moderate (10T/A or less) amounts. They can be spread just before spring tillage, or even more effectively, left as mulch on the surface until next spring.
Flowers feed the spirit. They bring us home. They are ciphers proclaiming the primacy of life. And they want us to smile—at them. (They do!) Because they are smiling at us, smiling and beaming bright tones of hope and of life. Smiling and saying, “Rest your mind on me a minute, and be glad.”

For 10 years I farmed, living amidst flowers (such beauties!) I’d planted, or who had lived there first, or who had invited themselves in. I learned another language: gathering borage blossoms in the morning while honeybees droned contentedly beside me, or while watching butterflies dancing above the echinacea. I learned a secret the day I found a mouse’s cache of sunflower seeds nestled in the crook of a huge hairy leaf. Gold finches swaying on chicyo stalks amidst constellations of Queen Ann’s lace was as divine a vision as I’d ever hoped to witness. Violets and trout lilies, asters and marsh marigolds, trillium and hepatica, nicotiana, thithonia, lavatera, rudbeckia, verbena, butterfly weed, these and so many others were sweet and happy friends.

And now I live in town, in a small old village that was settled in the mid-1600’s and burnt down and savaged twice during that strange dark time called the French and Indian War. It’s a village that sits directly on the western bank of the upper Hudson River and whose location once served as a major transportation center—a confluence of trails and waterways linking the Iroquois and Algonquin peoples meets here. And it’s living in this village, walking down streets lined with maples and oaks so venerable and huge, that I see impatiens and petunias in hanging baskets; portulaca in clay pots on wrought iron tables; morning glories twining up trellises beneath porch rails; fancy dahlias lining a walk; tiger lilies round the corner; irises—so stately and exotic amidst the trash left by partying teens and people fishing who just don’t pick up after themselves. A little ways beyond are blue flags rising up their own version of stubby stateliness to the sky. Just a few of them, enough to remind anyone who’d care to notice of this land’s wild antecedents, here at the edge of town.

Walking up the rise away from the creek, it’s easy to see agriculture’s imprint on the land, because to get back up to the road, you have to pass through pasture abloom with the subtle hues of red clover, vetch, birds foot trefoil, and goldenrod. These aren’t very flashy plants. They don’t seem to try to catch my eye. Their purpose is not that they be noticed, necessarily. They are earnestly fixing nitrogen and attracting bees—not human admiration for their aesthetic charms (lovely as they all are anyway). I get the sense they wouldn’t much care if I appreciated their beauty or not. They’re too busy.

Unlike the ornamentals of the neighborhood, so many of whom are prohibited by patent from propagating without a license. Their genetic heritage is copyrighted; their unique charms have a monetary value controlled by corporate entities far, far away from this little village. So what would these idle lovelies be busy with? They are specifically bred to be eye-catchingly beautiful. And so in order to fulfill their particular biological destinies, these ornamentals are hoping you’ll notice.

I noticed, one afternoon during the summer as I walked up to the school to pick up my daughter. A bright fuchsia-pink geranium hanging along a porch rail winked and smiled down at me and I smiled back and in an instant of irrational insight I realized that was exactly what the bright blossoms wanted of me—that I lighten up and smile back. I told my daughter this as we walked back home; it was no news to her.

These town flowers (like the town crows who let me get up close and listen to them talk about how great it feels to fly) are used to being around all us people with our comings and goings and busy preoccupations. And they do want us to open up and smile at their loveliness. Even seemingly haughty cleome, with her hairy sticky stems and her hard to recognize face amongst her petals, sways in satisfaction when her beauty gives us pause, penetrates our preoccupation, and we stand enraptured by her loveliness, seeing for a moment...only her.

Flowers make magic. It is as if they are messengers from the strange and wondrous faerie realm that hopes to hear our voices breaking into twinking laughter, into sighs of wonder—wonder at the vision of them, our eyes crumbling in the momentary abandon of delight. Flowers are emissaries of light and loveliness and, please, not merely the sex organs of plants. But then, genitals are doorways, mysterious portals of life’s encompassing power and majesty, of life’s hope and powerful triumph over death and despair.

I work in an office now, and some days I am so engrossed in my work I forget there even is an outside, much less go out in it. So the flowers I see there, for the most part, are fine thoroughbreds shipped thousands of miles from hothouses in different continents and time zones, sent to deliver messages of love. White tulips in January, arrayed with neon bright heather in a clear glass vase—looking very much like inspiration for a still life painting. Exotic giant daisies whose names I didn’t catch, with deep brown velvet eyes and petals of burnt sienna atop 3 foot stems thick as corn stalks. And how all of us in that workplace sigh and fawn and ooh and ah over the sight, the presence, of these delicate lovelies in our midst. The only other natural phenomenon that can set us off so are the infants of some of our clients, sweet bright babies with the cosmos still swirling in their wispy hair. We smile at them and when they smile back, our hearts flow over with the soft heat of happiness. How like flowers, these babies—so delicate, so true, such palpable reminders of life’s determined gentle joy. How like babies, these flowers—faces bright with trust and hope. Both beckon us to soften, to stay still a moment and recognize the sweet magic and the quiet joy everywhere all around us, suffusing every moment with its peace—no matter where we are.

Sherrie Mickel is the former co-owner of Ruckytucks Farm in upstate New York. She now works as an advocate for victims of domestic violence and sexual assault.
Growing Ornamentals Organically

by Carol Stull
CRS Growers, 2622 N. Triphammer Road
Ithaca, NY 14850
phone and fax 607-257-2195

When we moved to Ithaca, I started CRS Growers with weekend help from Bob. Since Bob retired we have run the farm together with part time help. We farm 5-8 acres, growing organic vegetables and culinary herbs. Our flowers are raised in three small greenhouses and several outside beds. In looking to expand our marketing period, it seemed good to include bedding plants in the spring as an early crop that would generate income to pay the planters and weeders before the vegetables started producing.

Over the years we have expanded to include vegetable transplants (never as popular as flowers), spring bedding plants, herbaceous perennials and lilies as well as most major vegetables. Along the way we did poinsettias and amaryllis in the winter and spring bulbs in the winter and early spring.

Our major selling markets are the local Ithaca farmers market, Finger Lakes Organic Cooperative and on the farm. We also do the local Cooperative Extension Plant Sale in the spring. We have tried other venues as they come along but have not found any major markets. The plants are sold through all markets except the coop (produce only).

Bedding plants
We originally grew everything from seed on a sand table with heating cables and grow lights in our basement. A few flowers germinate at lower temperatures than 70 degrees F. They were happy at the 50ish degree temperature of the basement with or without grow lights. We found that heating cables have a short life and transferring plants in mid winter to a greenhouse through wind and snow is a problem. We currently heat a free-standing green house with a Modine gas furnace controlled by a thermostat in the middle of the greenhouse. We tried wood, but the temperature was difficult to regulate and it needed refueling in the middle of the night. We adopted our current system when we built a new barn with a small attached greenhouse. The attached greenhouse is designed for maximum solar heat but always needs additional heat in the middle of the winter and during cold dark periods. The greenhouse has a patio door opening into the heated barn office/germinating area. We use a rubberized heating mat with grow lights for germinating seedlings, using an assortment of plug trays in the office area.

For several years we made our own soil mix of peat moss, perlite, vermiculite, compost and bone meal or certified organic composted chicken manure. Since Sunshine #2 was approved for certified organic operations we have used that with appropriate additives, including some compost. The last two years we have been using Root Shield T-22 (an approved beneficial fungus) in the soil mix to prevent fungus diseases and promote good root growth. We rarely have problems with disease or insects in the germinating area. There is good air circulation and bottom heat. We did find that our heating costs in January and February for the freestanding greenhouse exceeded the production yields. Shoveling through a three to five foot snowdrift to get into the greenhouse was also a definite drawback.

We try to wait until March to fire up the gas furnace in the main greenhouse. To do that we have found buying-in plugs of annuals and some perennials allows us to have a good supply of plants ready for the growing season. The plug trays go directly into the greenhouse for transplanting and can be planted directly into six packs or baskets. We buy-in plugs of things we want eight or more 48 count trays of. We grow from seed those plants that we need in small amounts, or which have shorter growing times. All our vegetables and edible flowers are grown from seed and are certified organic.

We aim to have plants in full color for Mother’s Day. While annuals transplant better in the vegetative state, most buyers want instant color that will last. Our plants grown organically with no growth inhibitors do better in the garden than the pampered conventionally grown plants that have been fed continuously. Our plants tend to be a little smaller than conventionally grown plants and to have a root system that matches their size. Our customers recognize their sturdy quality. We do need to add enough amendments to the mix to last the flowers until they are planted. While vegetable transplants are ready to go in two to eight weeks, flowers generally take longer to flower and need enough phosphorus to produce blossoms. Some of the liquid seaweed mixes are useful for this purpose. All of our ornamentals are grown by the organic certification regulations so that we can use all our greenhouses for any purpose. The flowers, however, are not certified as organic. Some customers do appreciate our organic approach to growing ornamentals as well as vegetables.

Insect and disease problems.
We have found that you must keep fungus gnats under control or you will have severe problems. The larvae eat the roots of your plants and the adults leave black spots on the leaves and flowers. Hypoaspis miles, a predatory mite, does a good job on fungus gnats, thrips and shore flies. It may establish and reproduce in the greenhouse. ScanMask, a brand of beneficial nematodes, works well too. Gnatrol would be nice to use but is not currently approved for organic certification. You can check for fungus gnats by putting a small piece of cut potato on the surface of several plants and checking for a small white worm with a black head. We are fortunate to have IPM Laboratories in the area for consultation.

Aphids are another possible problem. Good air circulation and healthy plants work against them but there are times they just appear. There a number of resources to control them: green lace wing larvae, lady bugs, and parasitic wasps all will do the job if you catch it early. Safer Soap may help knock down the population enough for the biologicals to take over. Do the soap first and then release the biologicals as the soap isn’t good for them either. Raising poinsettias was the only time we had a problem with white fly — and we were prepared. We had a regular schedule for releasing Encarsia formosa, based on the last spray the cuttings received before we picked them up. If you do poinsettias, assume you will have white fly because you will. Learn to tell to identify the scales so you can keep them under control. We haven’t had problems with spider mites, probably because there is adequate humidity in our greenhouses.

Diseases haven’t been a problem either, but our houses are small and empty for several months in the summer and winter. Any residual pests or diseases are cooked or frozen out. My one caution to people with greenhouses is: don’t hesitate to rough out a plant or group of plants with a problem. If it really is your favorite, isolate it (not in the same house) from the rest to prevent the problem from spreading.

Herbaceous perennials
We grow a number from seed. They are sold as seedlings in four-inch pots. Usually there are enough to transplant into the garden for gallon pots the next year. We also buy bare root perennials and liners. These are generally sold in gallon pots. Most of them are hardy so they only need to be parked on the floor of the greenhouse until they start growing again. A cold frame would work well for many of these plants. Again, we avoid fall blooming plants.
as people aren’t in the planting mood then. We like poinsettias. We have done mums, but the price that you can sell them for hardly pays for their upkeep. We are generally busy with veggies by then.

Lilies have been a very good product for us. We do colored lilies — Asiatic, oriental, and callas. They require a special soil mixture with no perlite, but grow well. Several different varieties can be planted at one time and will bloom over several weeks. Unsold bulbs (hardy varieties) can be planted in the garden and offered the next year or sold the next year as cut flowers. The callas can be stuck in a warm closet in their pots and repotted and sold the next year. We buy cooled bulbs in the spring rather than try to cool them in our cooler. Easter Lilies have a very short window for selling. They MUST be in bloom on Easter or forget about selling them. Most people are happier with spring bulbs or colored lilies. The white lilies have too close a connection to death for many people.

Spring bulbs are a good selling item. You start rooting them in the fall for sales January through April. You need to explore the best varieties for the time of sale. Park seed offers a good book with all the details of timing. We did lose a few bulbs to rot since we didn’t use the recommended fungicidal drenches. Control the height by keeping the bulbs cool and in good light. Mixed pots are nice. We used crocus, daffodils, tulips and hyacinths for a pot that will bloom for several weeks. Remind customers that all the bulbs can be planted outside for flowers in the future.

**Marketing**

We use an 80-20 rule with plants. 80% will survive and 20% won’t. Of those 80% will sell and 20% won’t. Plant those extra ones or give them away to a local charity. Don’t try to sell plants in poor condition to customers if you are going to be in business for more than one year. If they all sell out in the first two weeks, plan for more next year. If you have a lot left at the end of the season, do less next year. Bedding plants and vegetable transplants have a short selling period and are very weather dependent. Your plants may be ready but the customers don’t have their gardens ready. If they want it this week and you don’t have it, they will buy someone else’s. You need to explore the market in your area. If we had a permanent garden shop, we would probably do house plants and fall mums, asters and flowering kale and poinsettias for the holidays.

I would recommend that new growers find out about plants they haven’t grown before they try them out. Explore your markets. What is missing? Where do you fit in? We do the top sellers in bedding plants like impatiens and petunias. We also try to have new varieties and colors. Just as heirloom tomatoes are big sellers as plants and tomatoes, people are looking for native plants and old fashioned plants like hollyhocks and snapdragons. We do a brochure of most of the varieties we will be carrying during the season. We also offer several plant sales after the big rush for some local organizations. A donation of 10% of the sales will go to a designated cause. People like to have a choice so try to have a good selection. A good display is important. You also need to be knowledgeable about the plants you’re selling and where they will grow well. Try something new and different every year.

Know your competition. Our neighbor at farmers market grows huge hanging baskets so we do strawberry pots and color pots and herbs. There are many growers at our farmers market who specialize in cut flowers so we do daffodils in the spring and some cut flowers on Sundays when other vendors are there. Plants of all kinds have been a good product for us. The price of one plant is generally more than you get in single vegetable sales. We don’t get a premium for organic, but we more than cover our costs and have a reasonable profit. The flowers fit in nicely with our vegetable production. The two of us can handle all the spring work. The flowers add a colorful display to our market stand in the spring when we have mostly lettuce and other greens.

**Resources:** IPM Laboratories, Locke, NY phone (315) 497-2063 for biological advice and supplies.
Cut Flowers
by Carrie Chalmers

I began growing flowers commercially because I loved flowers. It was as simple as that, and I’m sure many other growers entered the field (so to speak) for the same reason. While the luxurious colors and scents, and the buzz of foraging insects are pure pleasure to this flower lover, profitable flower growing depends on other factors too. Good organizational abilities, marketing skills, knowledge of plants and farming, and efficient, hard work are key to successful flower growing.

Market research is the most important part of a business plan for anyone interested in growing flowers. Deciding to grow a field full of flowers and then looking for a market is a costly mistake. Flowers are extremely perishable, and buyers, whether wholesale or retail, can be very picky about stem length and variety. Before you start planning your flower fields, evaluate your personal goals for the business and how that meshes with potential markets. When I first considered growing flowers I was twenty years old with no experience with plants and farming, I quickly realized, should not be an accident. Cutting flowers by the stem, and grew a beautiful selection. I plant two rows per bed, and block out transplants are allowed with organic certification. Most floral preservatives contain sugar to feed the flowers, an acidifier to help plants take up water, and an anti-bacterial agent to prevent the stems from getting infected. Transplants are spaced closely from 4-10” depending on the plant. Growing the plants in the greenhouse, harvest techniques, and coolers growers can prolong the vase life of flowers. Customers can also help by changing the water regularly, stripping away foliage that is underwater, cleaning the vase, and recutting the stems. Many growers use black plastic to cultivate chores. Many growers use black plastic to cultivate. It may only buy a few bunches at first, but down the road, as trends change, and previously novel items become common, these “experiments” put you ahead of the competition.

Retailing flowers directly to consumers through farmer’s markets, roadside stands, subscription plans or pick your own operations generally offers a better price to growers than wholesale markets. This is a very different market. Higher price specialty cuts may not be in demand by these shoppers. Direct marketing to consumers allows you to grow flowers that do not have to stand up to shipping or a florist’s cooler. Customers usually appreciate a good diversity of varieties, and often tolerate the shorter stems or shorter vase life of many of the summer annuals like cosmos, calendula, agrostemma, sweetpeas and cleome. Pick-your-own operations are good alternatives for busy farmstands that do not want to tie up labor picking flowers. Use the CSA model and offer bouquets on a subscription plan to businesses or individuals. Visit wholesale markets and price and size the bouquets offered to get a sense of what the market currently offers. Analyze whether market demand is there. That precedes the current supply, and whether niches can be created within the market.

Retail markets also vary greatly depending on location and customer base. When I worked at a farmer’s market on Martha’s Vineyard in the early nineties, flowers were in demand at $6/bunch. Last year a friend who sells mixed bouquets said that most arrangements now sell for $10/bunch, despite the increase in production and costs. During the peak summer months she and the other growers sell out early in the day. Here in Vermont, I found that the demand for my vegetables and specialty plants far exceeded the demand for my flowers, and that people hesitated to pay more than $4.50/bunch at the farmer’s market. I grow both flowers and vegetables organically. The agency to see whether floral preservatives are allowed with organic certification. Check with your state certifying agency to see whether floral preservatives are allowed or organic certification. Most floral preservatives contain sugar to feed the flowers, an acidifier to help plants take up water, and an anti-bacterial agent to prevent the stems from getting infected. Transplants are spaced closely from 4-10” depending on the plant. Growing the plants in the greenhouse, harvest techniques, and coolers growers can prolong the vase life of flowers. Customers can also help by changing the water regularly, stripping away foliage that is underwater, cleaning the vase, and recutting the ends of the stems.

Growing flowers successfully requires gardeners to balance many skills, and like most tasks it does get easier with time and experience. If you love flowers, enjoy working with plants, you have few mistakes maybe it is the business for you. If you are currently farming other crops, flowers may be an excellent and profitable niche if you do your homework.

Two recommended books on cut flowers are Specialty Cut Flowers, by Allan Armitage and published by Timber Press, and The Flower Farmer, by Lynn Byczynski and published by Chelsea Green Publishing Company. A text that just covers postharvest considerations is Postharvest Handling and Storage of Cut Flowers, Florist Greens, and Floral Plants by Jonny van Eck and Ryszard Rudnicki.
Deep in Their Roots

by Clare Pearson

“Deep in their roots, all flowers keep their light”. (Roethke)

I have been a grower now for 13 years, and in that journey I have been accompanied by flowers since the beginning. It has always been my belief that flowers feed the spirit and no matter what size your farm, 2 acres or 200, the presence of flowers offers us a chance to stop for a moment and think about what we are doing, and why.

Just imagine, (you probably don’t even need to!) that you are weeding 10-100 foot beds of green beans. The weeds have gotten slightly out of control (you probably don’t need to imagine that either!) Wouldn’t you be glad for the opportunity to be looking at the petunias you planted down the middle of those rows while you are there at eye level? Petunias, in this case, are a “working” flower, the companion to green beans for Mexican Bean Beetle prevention. And there are Marigolds for tomatoes, and that lovely Salvia horminum to go with the Brassicas, etc. And so we work our way down our beds feeling a little less burdened by the hum-drum of massive weeding. But flowers are more than that.

“One of her major learnings and then understandings, operationally, is that “Beauty is not a frill. It is a human need.” She talked about how no society in history has ever lived without some form of beauty. Flowers have the capacity to surround us with the opportunity to connect with something spiritually larger than us, and to help us reach beyond ourselves to others.

When I started growing, there were just a simple few varieties that I grew, mostly as companions to the vegetables. I was living on a not-for-profit farm, our growing was financed by a grant, and I felt responsible for not “wasting” the money that I had to justify to the funder. I felt I would never convince the grantors of the “need” to provide flowers to our customers, who were poor families and soup kitchens. However, as I started to grow, cut and arrange bouquets, and out with our produce, I started hearing what a difference they had made in the lives of the people who were receiving them. All hope of fiscal justification went out the window! The more positive feedback we received, the more varieties came into my strategy!

I now live, with my family, at Wilder Brook Farm in Western Mass. We co-farm with John Hoffman and his partner. Together, John and I run a 60 member CSA operation. People pay in advance for produce that they receive for 20 weeks of our growing season. When we started here, I struggled with the same feeling of not wanting to “waste” the money on flower seed. After the first season, however, John and I had a great conversation about intentionally seeing the flowers, both the space that they took up in the field, as well as the time and money that went into them as equally important as the vegetables. I shared my dream that people would not see the distinction between the produce that they picked up as food and the flowers they got as “food”. But I realized that unless we acted like we ourselves believed, that we couldn’t expect our customers to get there. We decided in that moment that is what we would do. We order the seed for our flowers as though it is as important as the seed for broccoli, chard and corn. And we safeguard space in the field as though there were nothing more important to be in that space. We irrigate and weed (never enough though!). And we cut the flowers as part of every harvest day. In the spring, we dig and split roots, potting on small pieces of the perennials to grow and give out on the first pick-up day of the CSA. In this way, we encourage our customers to feed their own passion - whatever it is - by watching just a few colors and shapes come to life in their own yards. We have done this slightly regardless of whether the customers wanted flowers or not. We were going on our own belief that we would increase their hope and joy in the world.

This year, we really had it together (rather surprisingly) at the end of the season. We managed to put up large charts so that our customers could evaluate the produce by both quality and quantity. Flowers were part of the chart, of course. Our scale was 1-5, poor to excellent. We scored all 4’s and 5’s in the flower category for both quantity and quality, (more than we could vouch for turning!). There were comments written all over the chart as well as spoken to us about what a difference these flowers made in peoples’ weeks—and even one comment about how this one person could have left the produce behind, as good as it was, and taken only the flowers!

Economically, albeit secondary in our plan, the flowers are starting to pay for themselves. The value of our CSA has increased. We “did” our first wedding this year, and local restaurants are buying our arrangements. We also made and sold many dried flower wreaths made from our flowers.

So what is food anyway? I like to think that it comes into us in many ways, not only through the mouth. I hope so. My spirit is attached to the idea that we all know what we need to really live. I hope you find or know the things that do it for you. Flowers are certainly a piece of mine and I believe they belong in all of our fields.
Pam Trims a Bouquet

By Jack Kittredge

In western New Jersey, close to the Pennsylvania line, there is still farm country. Increasingly, fields will have a house lot carved out of them, but they still look like fields, not developments. The Howell Living History Farm is here, preserving a piece of our agricultural heritage. It was to the Howell Farm that Pam Flory came in 1988, wanting to learn about animal traction. There she met her future husband and decided to stay.

With a knack for raising flowers, Pam started a successful floral business. As it grew she needed more land, however, she joined her business to a friend’s CSA. Now she and Michael Rassweiler, Julia Ritter, Matt Conver and Dominique Herman manage NOFA-certified North Slope Farm. The Farm has a 125-member CSA, sells at 3 local farmers markets and does flowers for parties and events.

The two businesses complement each other. Pam feels. The summer of 1999 was so dry that the CSA was faced with shutting down for one week because of a lack of vegetables. But flowers, requiring less moisture than fruiting crops, filled in and satisfied members during the roughest drought periods. The flower displays attract customers to the vegetable stands at the farmers market, whereas a buyer there for the vegetables may decide to purchase a bouquet on impulse and purchase them! At the Summit market, Pam’s best, she makes more on flowers than vegetables, selling all her 120 bouquets. She had to hire another person to make just flower sales so those customers wouldn’t have to wait in the vegetable line.

“We have a unique product,” explains Pam. “You can’t walk into most florists and find the seasonal flowers that we have. We pick specifically for a market. When our flowers get there, they look fabulous. They’re not left over from a previous farmers market. We’ve seen this happen a lot - people will walk up to our flowers at the market and say: ‘Seven dollars! That’s ridiculous!’ Then they’ll walk across and buy ours. People want a quality product that will last them a week. You buy flowers for the aesthetic of it. You want them to look perfect!”

Pam also sells to a few local florists who buy specialty things they can’t get elsewhere, such as sunflowers. She likes to develop local markets because they will work with her. Occasionally she’ll have a lot of something like zinnias come in. If she knows local florists she can call them up and they’ll take 25 or 30 bunches to work into bouquets.

North Slope Farm has about 15 acres under cultivation, including 3 1/2 in flowers. About 1/4 acre is a pick-your-own garden for the CSA members, which Pam plants in succession and designed so that shareholders can pick many different flowers within a few feet of each other. Most growing areas are in conventional 4-foot raised beds, although this year they have experimented with narrower ones. Fertility comes from generous additions of “mushroom compost”.

“It’s horse manure that was used to grow mushrooms in Pennsylvania,” Pam says, excitedly. “For us, using it has changed the farm! We till it right into the top three inches of soil before we direct seed something. I know it also makes a huge difference with our seedling production.”

In addition to the compost, they get leaves from local towns and are hoping to build a composting facility on the farm to mix the leaves with manure from local dairy herds. The leaves are used now for mulching and in 1999 made a big difference in conserving soil moisture.

Pam uses drip irrigation in many beds, although she is not happy with the mess left by the plastic mulch with which drip irrigation is designed to work. In many beds she just doesn’t lay the plastic, but later rues that decision because of weed growth and the fact that the irrigation tape is so flimsy that it gets nicks and leaks if you try to use tools to weed around it.

Besides the five main farmers, North Slope Farm employs several part-time workers plus a number of high school kids. Recently Pam put on a crew of pickers to allow the more experienced farmers to focus on bouquet making. It has been surprisingly hard on her and Mike, she says, to let go of that task.

“Giving up the pieces of this to other people has been difficult,” she admits. “Certain people have more of a knack than others, some take longer to learn. But giving that up and not being here is hard. But you don’t want to work 14 or 16 hours a day! You have to draw the line someplace!”

Flowers are picked Monday morning for the Tuesday market, Tuesday evening for the Wednesday one, and Friday evening for the Sunday one. They are picked directly into buckets of water in the field, then taken to a walk-in cooler for conditioning. Once thoroughly cold, they are brought out to be made into bouquets.

Pam tests new varieties of flowers in a trial garden. “We were taking up a lot of space in the fields with all the new varieties I’d read about,” she says. “So we decided to make a special trial garden this year where we can test new flowers and vegetables to see if they work for us. I test flowers for stem length, will it stand up for a week in a vase, color, what will it look like in a bouquet? This trial area also gives people a really nice feeling for the flowers we grow. It gives you that cottage flower garden feeling. And, of course, it’s a lot easier to maintain a small display area near the buildings.”

Varieties are what a bouquet business is all about, of course. Pam needs to have continual rotations of flowers so some are always coming into production. Each variety also has its little nuance. Some you can strip the stem down low, others will break if you try. Some of Pam’s standbys are sunflowers, dahlias, delphiniums, gladolites, snapdragons, ageratum, scabiosa, statice, larkspur, rudbeckia, fleabane, zinnias, yarrow, bachelor buttons, globe amaranth, straw flowers, verbena, and bells of Ireland. Fillers are eucalyptus (partly for the wonderful smell), yarrow, and a new favorite about which Pam is excited.

“This is our new favorite flower!” she says. “It is called euphorbia. The variety is Kilimanjaro. It is the most amazing filler flower. It holds up nicely, it bends without breaking, it shows up well with the verbena. This is the first year we’ve grown it. You have to wait until it gets to the flowering stage and then white appears on the leaves. If you cut it too early it wilts quickly. It doesn’t really have a fragrance.”

With certain high value flowers like dahlias or sunflowers Pam will make bunches of all the same flower, using 5 or 6 stems as a bunch. But if she doesn’t have enough she’ll make one of those flowers the centerpiece for a mixed bouquet of from 12 to 20 stems. Even at $7, however, Pam is not convinced she is really making money given the amount of time spent producing, picking, and arranging bouquets. So she is trying to reduce the amount of time spent on each one. Thus the picking team was hired, to let the experts concentrate on arranging.
"Mike, Dominique and I pretty much make the bouquets," she explains. "You have to have an aesthetic for the flowers. It doesn’t have to do so much with color as with texture. We’re not so much concerned with what flowers go into it. But it needs to look like a $7 bouquet. I tell people to hold it up and look at it and ask themselves if they would pay $7 for it. Even last year we would sit there and wonder - is that one big enough, is that one beautiful enough? If you’re trying to do this on a large scale, however, you just can’t take that much time. We’ve found that people are happy with our flowers - they’re fresh and high quality if they are picked at the right time. It’s hard to make a bad bouquet with these flowers!"

Part of the appeal of Pam’s bouquets is the attention she pays to fragrance. She selects many components especially for their smell — dill and artemisia, for example, have exciting odors. Other favorites are agastache, which is in the mint family and similar to anise hyssop with a licorice fragrance, and cinnamon basil.

When it comes time to arrange bouquets, Pam and the others gather at a shaded table space outside the cooler. She takes 5 or 6 buckets of flowers from the cooler, places them left to right in the order she wants to build the bouquet, pulls a handful out of each bucket and lays them on the table to pick from. They build the bouquet picking flowers from each bunch, left to right.

"Bouquet making is getting a formula," she relates. "I tell people to make a handful of stems. If you have a thick stem that will normally have a large flower, maybe equal to 3 or 4 stems of another variety. I want the shorter stems around the outside of the bouquet and the longer in the center. If we have a lot of filler flowers I might put the bucket with them down at the end so that after you make your bouquet if you look at it and it’s not a $7 bunch, you can throw some filler around it.

“It’s more difficult the more varieties of flowers you have,” she continues. “It’s pretty easy when you have 5 varieties sitting in front of you. You know you are going to have to take a little handful of this and a little handful of that. But when you have 25 varieties sitting in front of you, it’s overwhelming. So we have developed a formula and we try to set the flowers up on the bench in that formula.

“The varieties we pick for a day are totally dependent on what’s in season. So the formula might call for some dill, a sunflower, a bell of Ireland, a Dahlia, two zinnias — the colors will be different because the individual flowers will be, but they will basically have the same components in them. So you can go down the bench picking up these flowers. My goal is to get making a bouquet down to between one and two minutes - from the first flower you pick up to putting the elastic on and trimming it.

“This bouquet I’m making now uses, from the left, agastache, dill, cosmos, tithonia, euphorbia, selenis, rudbeckia, zinnea, and ageratum. Nineteen stems. Normally I take out a bunch from each bucket and lay them out so I can pick flowers up easily when I’m bunching. I get a sense of how many flowers I have and try to use enough of each to end up with all empty buckets.

“My next step is to clip the bouquet to the shortest stem and then rubber band the bouquet and put it in the final bucket it is sold from. First I wash those buckets out with bleach to make sure the water won’t go foul. Sometimes zinneas can get powdery mildew, sometimes beetles attack the marigolds or sunflowers. We put four bouquets per bucket, then they go back in the cooler. That’s the right amount so that when people pull them out they don’t break stems. We tell people it should last a week. That’s what we want, so they’ll buy another one next week.

“We take the bouquets to market in buckets in a boxed truck, which protects them from the wind. We run out of space in the truck by the peak of the season. We use New York Times newspaper bags to sell them in. We tell people to recut the stems when they get them home, and give them plenty of water. Because it has been so dry, they suck down a vase full of water quickly. But the time it takes for people to get home is not a problem, usually.”

Pam, Mike, and the others at North Slope Farm are struggling with the question of scale. Whereas they feel a lot of the economics get easier with an increase in size, they are concerned about trading off the enjoyment of their work for financial return. And it a little. Is there a scale that will let us do the things we like and still make a living? I love dealing with people, talking to them. I love feeling really competent about what we’re doing. Some people say when it gets to a certain scale it gets a lot easier and makes sense. But with expansion come new problems. You have to have more employees, delegate. We’re trying to figure out how to make a living and have a life. How do you manage that?"
Everlastings: Dual Purpose Flowers

by Kathy Morris

A major concern of growers for the fresh cut flower trade is vase life. Flowers classified as everlasting are excellent as fresh cuts and dry well if they’re not sold. They tend to be easy to grow; and, properly picked will provide great color and beauty in arrangements - fresh or dry.

The backbone on many dried arrangements tends to be the annual and perennial statice. The annual statice (Limonium sinuata and Limonium bonduclueli) are easy to grow; the seeds germinating in a couple of days with a little bottom heat (the side of the wood cook stove for us). The seedlings tend to do fine even in our cool house but flourish in a greenhouse. Set out about 1.5” apart in two foot rows works well although some of the pastels and yellows can be 12” apart and at times I wish the whites were 18” apart. They come in shades of blues, purples, roses, white, apricots, and yellows and should be picked when 2/3 to 3/4 open for fresh cuts. The perennial statice (Limonium latifolia and Limonium tataricum) with lavender and white bracts provide background and filler for all sorts of arrangements. While they’ll do okay starting from seed without a greenhouse, those wanting only a few plants may do well to purchase them from a greenhouse. The German statice (L. tartareca) tends to winter kill for me but 30 miles south of here does fine. Both perennial statice like well-drained, fertile soil and tend to frost heave from the ground when grown in less-than-ideal situations. Another perennial that fulfills much the same role is baby’s breath (Gypsophila paniculata). Well-grown plants provide many large airy stems of flowers. Care must be taken with this hardy plant as the new shoots tend to be very fragile and are easily broken off, not to regrow. Books tend to suggest that the doubles are more desirable but I tend to like them both and when starting from seed you get mostly singles anyway (which also seem to be more vigorous).

Several other annual everlastings are good cut flowers. The long stemmed globe amaranth varieties (Gomphrena globosa and Gomphrena haageana) come in shades of pink, purple, white, orange, and red and provide clover-shaped accent flowers for bouquets. For those without a warm greenhouse, the temperamental globes require lots of warmth and light to grow. Mine always germinate easily and then never get beyond the seed or first leaf stage. I buy 6 packs. Cutting long stems does remove lower flower buds, thus reducing yielding, but cutting at a node does allow branching and regrowth. While touted as a good dried flower, the stems of Gomphrena reabsorb moisture (like Acrcominum, Helichrysum roseum, and Blue Salvia, Salvia farinacea) and become limp in humid weather. The flowers are best wired if they are to be used upright.

Strawflowers (Helichrysum bracteatum) - whose colors range from white through pinks and apricot pastels to the hot reds, oranges and yellows - are best picked for fresh and dry use when only the external 5 levels of petals are open (when you look down on the flower you see the first complete circle of petal around the bud). Allowing them to open further reveals the center which when dried will turn darker red as the flower is mature, not as sturdy or long lasting. Most commercial straw tet to be fully opened - the flowers do look bigger. Strawflowers are easy to start even without a greenhouse. Uncovered, the seeds germinate in a few days and grow well even in our cool house. I tend to prefer the ‘silver’ pastel pink pinks and apricots when combining them with the colors of the annual statice - but that’s personal preference. Strawflowers tend to be wired for dried use not because their stems become limp but because cutting long stems reduces yield. I prefer the way they look with their natural stems as the top leaves tend to frame the flower and the natural stems are sure better looking than green wires.

The plume types of celosia (Celosia cristata) are another annual whose unique feather spikes combine well with other flowers. The taller varieties give a lot of nice long stems. For dried material, I prefer the reds and pinks and some apricots as they tend to dry to rather rich darker colors while the yellows dry to tan golden colors. In identical dried arrangements, the reds always sell first. Another nice celosia for fresh or dried arrangements is the wheat celosia (Celosia cristata spicata), which produces numerous 1 to 3” pink spikes. They tend not to last as long in dried arrangements as some other varieties.

Larkspur (Consolida orientalis) is one of my favorite fresh or dried flowers but I have a horrible time growing it. I’ve direct seeded it in every season, tried to let it self-sow (we’ve gotten 2 plants in many years), and transplanted it; and, 4 times out of 5, it succumbs to insects, doesn’t germinate, or just disappears. I know for some people and all over England, it self-sows freely; but for some mystical reason, we’ve had one great larkspur year out of 20. Picked before the last few flowers are open for fresh use, it’s long stems provide good contrast to flat blossoms. It dries easily but as it dries goes through a fragile phase where, if disturbed, it will lose its petals. For drying I pick it just as the top flower in the spike opens. On very long spikes the bottom flowers may have gone by this time, but I like the looks of the open flowers on the tip. Personal preference and market tastes will determine when you pick yours. Later stems are shorter and I either use them in shorter bouquets or wire the hollowish stems. (Some very short stems may be too thin to wire. These are good wreath material.)

Flowers whose seed pods are used for dried arrangements also can provide cut flower material. Some such as Nigella species, especially Nigella damascena, have lovely flowers but with a relatively short vase life. However, the pods of Nigella are long lasting and add highlights to all bouquets. The seed heads of grasses may also be used in certain arrangements with lovely effects.

Many other plants used in dried arrangements can be used in fresh cut bouquets. The perennials Artemesia, such as Silver King, Artemesia ludoviciæana, will work as accents in bouquets but must be picked at least 24 hours before display as the stems will temporarily wilt until they absorb water. Some herbs have lovely flowers, fresh and dried, and often Coneflower (Echinacea), Beebalm (Monarda sp.), common oregano (Origanum vulgari) lady’s mantle (Alchemilla mollis), and lavender (Lavendula angustifolia) are sold as flowers rather than herbs. Many other flowers grown primarily for fresh cut flowers also dry well. Try some of those red zinnia and nice rose buds. They dry well too.

When you intend on drying flowers after they’ve been used as fresh cuts, it’s important to follow a few rules to gain better dried results. When cutting the flowers, wait until all the dew is gone. When immersing them into water make sure the stems are properly cut and is cut to the same length only and use an inch or so of water. If the flowers sit in water for a day or longer, and if the weather is humid, cut the stems right above the water line before you hang them to dry. And make sure your shears, pruner or knife is clean. You don’t want mildew to form and if the stems are too tightly packed or wet, that can happen. Certain flowers are more prone to mildew than others (argeratum, yarrows, and tansy come to mind). And experiment. You’ll be pleasantly surprised at the variety of flowers that dry well.

So, if you’re overrun with fresh flowers and can’t find another open horizontal space, tip them upside down and dry them. (Market gardeners can then sell them in the fall.) Come winter you’ll be glad for the color they provide.
Designing and Growing a Cut Flower Garden

by Nancy DuBrule

I am the owner of a specialty garden center in Southern Connecticut. Our store is surrounded by organic perennial demonstration gardens, generously laced with annuals, biennials and flowering shrubs. We offer bouquets and arrangements to our customers, using flowers from the New York markets combined with anything that we can pick from our gardens. This sets us apart from other florists in the area and the “Natureworks style” of naturalistic, country bouquets brings people in from far and wide. In this article, I want to share with you some of our secrets to growing and using flowers from your yard and garden.

We do not belong to any floral wire services, basically because I never want to be stuck in the mold of using the limited plant palette that they offer. I encourage my designers to be creative and weave into their work ornamental grasses, unusual foliage, and uncommon flowers. My theory is that the entire yard – including shrubs, evergreens, pods, berries, and rose beds – offers material for a cutting. When I teach perennial garden design classes and I ask my students their criteria for the design, more than 75% of them are looking to market with cut flowers on a regular basis, you must have plants that you can harvest and sell, and those that you waste. I like to use grow-through grids for vegetables and plants like baby’s breath and shasta daisies. I put these on very early and the flowers grow up through them. They are improperly located, simply INVENTORY them. If you want to be highly organized, I suggest that you keep a garden journal and track exactly when your perennials begin and end their bloom cycle. This will help you to more accurately pinpoint the exact time of bloom. The second year, you may want to keep a garden journal and track exactly when your perennials begin and end. If you want to be organized, I suggest that you plan what you are doing. Above is an example of a season of bloom chart filled in with cutting flowers in every month of the growing season. Remember, I live in Southern Connecticut (zone 6B); the exact time of bloom will vary dramatically according to your location. The first year, you may want to keep a garden journal and track exactly when your perennials begin and end their bloom cycle. This will help you to more accurately pinpoint when you have gaps in the blooms cycle.

Season of Bloom Chart

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<td>Hyacinths___</td>
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If you want to be highly organized, I suggest that you measure your garden and draw it to scale on a piece of graph paper. I always use the scale: one inch = one foot in order to have enough room to write all of the names in on the plan. Locate on the plan any fixed objects such as rocks, shrubs, trees, or pathways that are not going to be moved. Locate ONLY the existing plants that you know are in the right place. Any other plants that you may have that are improperly located, simply INVENTORY them. Attach 7 pieces of tracing paper to your plan, one on top of the other. Write the name of the seven months of the growing season on each piece of tracing paper. Then, design your garden month by month. The tracing paper overlays help you to see what the visual picture will be, like a series of painting or photographs each month. If a perennial blooms for many months, include it on each tracing paper overlay. This is a long process, and you will be doing a lot of erasing as you explore the many combinations and possibilities for your garden. Use the season of bloom chart as your guide, and fill in your chart as you go, taking notes about the different plants as to color, height, shape, texture and form.

When designing a garden, a general principle is to use drifts or groupings of plants. The rule is: the larger the garden, and the farther away you will be viewing it, the larger the groupings or drifts. Therefore, if you were creating a flower border 50 feet long, 8 feet wide, to be viewed from across the yard, you would use drifts of 3’s and 5’s of the exact same variety. This will provide you with an effective display from a distance and assure that you have plenty of flowers to cut at all times. Exceptions would be bold, dramatic plants which stand on their own – ornamental grasses, peonies, and flowering shrubs such as Scott’s broom or Quince. Single specimens of these large plants can be used individually.

Another basic design principle is to juxtapose opposite plants next to each other. Spiky flowers should be next to flat-topped flowers: yarrows with delphiniums, daisies with lilies. Heavy textured flowers should be next to light textured flowers: peonies surrounded by clematis, phlox besides baby’s breath. The same is true of foliage textures and shapes: hostas combine well with ferns, and both make excellent cut greens. Every cut flower garden must be accessible to the person harvesting the flowers. Be sure to work into your design wide and generous access pathways. If your garden backs up to a hedge, a fence, or a wall, make an extra wide path along the back to allow a wheelbarrow to roll through. Besides harvesting the flowers, you will be top-dressing the garden with compost and organic fertilizers and mineral powders. You will be mulching and staking and doing some organic insect and disease control. Make it easy on yourself! If your garden is wider than 4-6 feet, be sure to include pathways or stepping stones leading into the bed. Make them at least a foot wide so you can set your picking basket down as you work.

Staking is a tedious and necessary chore in any garden, but it is especially important in a cutting garden. Straight stems are vital to attractive and professional looking bouquets. The key to staking is doing it BEFORE you need to – preventative, advance staking means the difference between flowers that you can harvest and sell, and those that you waste. I like to use grow-through grids for plants like baby’s breath and shasta daisies. I put these on very early and the flowers grow up through the crosshatch framework and are well supported.

(continued on next page)
Lilies must be staked unless you grow the new dwarf hybrids. Peonies should have their peony hoops in place before the buds begin to form. Hollyhocks always need to be staked well in advance of the first flower opening. Pinching or cutting back plants to encourage branching often reduces or eliminates the need for staking. Pinching will provide you with more flowers on shorter stems. In a perennial garden grown for beauty and not specifically for cutting, I cut back and pinch everything I possibly can. In a cutting garden, I may sacrifice bushiness and put up with the dreaded staking chores in order to produce longer stems. An excellent book that covers the techniques of pinching and cutting back plants is *The Well Tended Perennial Garden* by Tracy Disabato-Aust, published by Timber Press. This is my bible for learning perennial maintenance techniques.

In an organic garden, there is a high tolerance for a diversity of insects and diseases that may exist but not kill or severely damage the plants. If you are growing flowers for market, you have to be much more fussier about the damage that you will accept as you grow them. If you are growing flowers for beauty and cutting back plants in order to produce longer stems, you will provide you with more flowers on shorter stems. An excellent book that covers the techniques of pinching or cutting back plants is *The Well Tended Perennial Garden* by Tracy Disabato-Aust, published by Timber Press. This is my bible for learning perennial maintenance techniques.

Now that you know some of the basics about care and design of a cutting garden, it's time to think about the plants that can grow. I encourage you to broaden your horizons and try new perennials and annuals that will add interest to your designs. Look beyond the garden to roadside weeds, trees, shrubs, and foliage plants to supplement your harvest. The list of what to grow is long, but you will share with you some of my favorites along with some helpful design or growing information.

**Wild things**

Queen Anne’s Lace is one of my favorite “weeds” for picking. Although this is not a native plant it grows wild all over the countryside. I incorporate it right into my garden by sowing ripe seed in the fall and sprinkling it into the beds. After two years, you must be very careful to deadhead most of the flowers before they go to seed or Queen Ann’s Lace will take over your garden. Don’t try to dig it up — it is a wild carrot, and the taproot dislikes being disturbed. Be sure to condition Queen Ann’s Lace when you pick it (see below).

**Ox Eyed Daisies** (*Dendranthemum superbum* ‘May Queen’) are the earliest of the white daisies to bloom, late May in southern Connecticut, many weeks before the more cultivated varieties of Shasta daisies. They have long, thin stems and make excellent early cut flowers. You must be careful once they are established in your garden. Learn to recognize the self-sown seedlings and thin them ruthlessly each spring. I always leave a few plants in my borders to assure early wildflower bouquets, but I do deadhead them immediately after blooming so they won’t take over.

**Winterberry** (*Ilex verticillata*) is a deciduous holly shrub that grows natively in sunny spots where the soil is moist. The berries form in late summer, and by late fall, the leaves fall off, revealing long branches covered with brilliant red berries, perfect for picking for holiday arrangements. Winterberry does not have to have wet feet — it grows successfully as a backdrop plant in many of my borders. Like all hollies, it must have a male pollinator. There are countless new hybrids to choose from with extra-large berries.

**Herbs and Vegetables**

I like to incorporate edible plants into all of my garden designs. Herbs are deer-proof plants! Some of my favorites for picking are:

- **Bronze fennel** (*Foeniculum vulgare* ‘Rubrum’) has burgundy lacy foliage that makes a great foliage filler in bouquets. It looks pretty from spring until fall. The flowers appear in late summer, followed by seedpods, which produce fennel seed, which is used in cooking and to flavor tea. The seeds will drop and baby bronze fennel plants will appear all over your garden. Bronze fennel is an integral part of creating a balanced ecosystem in your yard. It provides food for many types of beneficial insects as well as being a larval food plant for the anise swallowtail butterfly. Be sure to condition bronze fennel when you pick it (see below).

- **Alliums** are a large genus of plants in the onion family. There are many alliums that can be planted by bulbs in the fall to provide you with cut flowers from May through July. The largest flower and the most striking is Allium cristophi, with enormous globes of lavender starflowers on 2’ stems. This blooms in June in my area. I weave it in amongst other June bloomers such as cranesbill geraniums and perennial salvias for a striking display. You may be tempted to leave the seed pods of the large flowering alliums on the plant as dried flowers. I have found that this dramatically saps energy from the bulbs and causes your Alliums to stand in shrinking size, eventually fading away. Discipline yourself to deadhead them right after blooming to allow the flowers to set seed, to reduce or eliminate grub populations and consequently reduce or eliminate the Japanese beetle problem. Powdery mildew and black spot can be controlled with a solution of baking soda and horticultural oil. Combine 1 tablespoon of baking soda and 2 tablespoons of low-viscosity horticultural oil (I use a commercially prepared canola oil rather than a petroleum oil. The brand is Concern). Spray this once a week in the hot, humid summer weather. Japanese beetles can be controlled by the use of Neem, a pesticide spray made from the seed of a tropical tree. Neem not only kills insects, it also makes the plants distasteful and keeps them away. Other natural and effective sprays are Hot Pepper Wax and Garlic Barrier. Consider using beneficial nematodes or Milky Spore disease, biological controls, to reduce or eliminate grub populations both in your lawn AND in your garden. This will consequently reduce or eliminate the Japanese beetles. Slugs can be controlled by trapping or by creating barriers with diatomaceous earth or a new repellant made from coconut. For more information about ecological pest control, you can check out the Natureworks website at naturework.com. There are many informational handouts under the organic gardening section as well as links to other sites of interest. Check out the slug website link for a real hoot!

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energy to go into the foliage which feeds the bulb for next year. In July, along with the giant alliums (Allium giganteum) which grow 3-4’ tall, I count on drumstick alliums (Allium sphaerocephalon) for picking and drying. These are very inexpensive, tiny bulbs that form deep purple flowers on 3-4’ stems. The flowers are small but abundant. Fresh cut, they keep their deep purple color; dried, they fade to a lovely soft lavendar. Incorporate them between the crowns of your perennials and create marvelous interwoven flower displays. In the summer months, look to Allium seneconies and Allium ‘Mt. Sinai’ to provide you with lovely lavender flowers that are also edible! In the fall, garlic chives (Allium tuberosum) can be a cut flower as well as added to salads. The last Allium to bloom is Allium thunbergi ‘Owona’, a cold tolerant, miniature plant that flowers in October! Nothing is more welcome than a bouquet of tiny miniature globes at that time of year.

Artemesias provide lovely silver foliage and a wonderful herbal scent for bouquets. There is one Artemesia that has green leaves and creamy white flowers that I count on for August cut flowers. Artemisia lactiflora is a late bloomer that provides 5-6’ tall creamy white plumes in sun or partial shade. Last year, my favorite combination was orange tiger lilies weaving through this white artemesia – a stunning marriage of two very different flowers.

**Tress and Shrubs**

Spireas are a large genus that will offer cut flowers from spring until fall. Spring blooming Spireas such as Bridal Wreath (Spirea ‘Van Houttei’) will fill vase after vase with flowers in May and early June. My favorites, however, are the summer blooming Spireas such as S. ‘Anthony Waterer’ and S. ‘Shirobana’. These hardy, durable plants will bloom TWICE in your garden. Growing 3-5’ tall, I use them as structural plants in most of my border designs. The flowers are flat-topped, resembling yarrows, covering the plants in June into early July. After the first initial flush of bloom, I shear the plants back hard and feed by side dressing with compost and organic fertilizer and foliar feeding with a mixture of liquid seaweed and fish emulsion (Sea Mix). By the end of August, these shrubs are in full bloom AGAIN, giving me another 3-4 weeks of cut flowers for my flower shop. Spireas are not eaten by deer.

Scot’s Broom (Cytisus) may not be hardy in all of the areas that NOFA members hail from. In Southern Connecticut, they thrive, especially along the sea-shore in lean, sandy soil. They are in the pea family, and their evergreen branches are covered in yellow, pink, or bicolor fragrant flowers in May, ideal for combining with lilacs in Mother’s Day bouquets. Scot’s Broom should be cut back hard EVERY year after blooming to encourage a full, dense, bushy habit of growth. An unpruned broom has a 6-7 year life span before it cracks and splits open in heavy snows or winds. Yearly pruning prolongs the life of this shrub and gives you more branches for cutting. This spring bloomer flowers on last year’s wood, so be sure to prune it immediately after flowering. I use the green, linear stems all years in arrangements, even when not in bloom. Scot’s brooms are not eaten by deer.

Quince (Chaenomeles japonica) is a wonderful shrub for cutting – especially in the winter when the branches can be forced into bloom. Forcing is a way to lengthen your cutting season by two months. Count back 6-8 weeks from the normal bloom time of quince, forsythia, lilacs, apples, or cherry branches. Bring them indoors, plunge them into a bucket of water, keep them cool and misted. When the buds swell, you can bring them into regular household temperatures and create spectacular winter bouquets. All spring bloomers flower on last year’s wood so NEVER prune them after early summer or you will cut off all of the flower buds.

**Summertime - Bee balm, Shasta daisies, Yarrow, Dahlias, and annual Tithonia**

There are so many wonderful perennials for cutting that it would take an entire book to describe them. In fact, there are many wonderful books on this subject that I encourage you to have in your horticultural library as a reference. I will share with you just of few of my favorites to pique your interest...

Doronicum pardalianthes is the Greater Leapordsbane daisy. Unlike its shorter cousins, this plant produces large yellow daisies on 2-3 stems that last 2-3 weeks in a vase! This is one of the earliest cut flowers to bloom in my gardens, providing unbeatable combinations with the spring bulbs. This species is rhizomatous, meaning it spreads by underground roots – and it spreads VERY quickly. A small plant will cover a large area within two years. The Greater Leapordsbane goes summer dormant, only to reappear in the fall, doubled in size, with low basal foliage. At that time, I lift it and separate it, spreading small divisions around all of my gardens. This plant will grow in full sun or deep shade and it is especially useful under trees. Because it disappears in the summer, you can pair it up with ferns or astilbes or Cimicifugas, fitting twice as many cutting flowers in the same spot.

Korean chrysanthemums (Dendranthemum variet- ies) are the hardiest of hardy mums. The typical roadside mums offered at every produce stand and grocery store are marginally hardy, even in my warm southern Connecticut garden. Korean mums are rock-hardy, surviving severe winters and returning in gardens for over fifty years! Varieties to look for include Dendranthemum ‘Sheffield’, ‘Venus’, ‘Bronze Elegans’, ‘Lucie’s Pink Daisy’, and ‘Penelope Pease’. These mums should be cut back hard in June to promote branching. Unlike other mums, they will bush out and then, in late September or early October, send up very long stems topped by large flowers. The long stems make them perfect for cutting, and they last two weeks or more in a vase. Be sure to seek out the hardy Korean forms – they are the mainstays of the fall - garden. Botanists have recently reclassified all Chrysanthe- mums - what you formerly called mums are now Dendranthemums.

Echinops or globe thistle is one of my favorite cut flowers for late June and July. After it is finished blooming, I cut the flower stalks down hard to the base of the plant and feed it well. I usually get a second flush of bloom in the fall. Globe thistle flowers are round globes, adding an interesting form...
to cut bouquets. I like to make sure that I mix up daisies, spikes, and rounded flowers to create interest and diversity.

I love lilies – Liliums, that is. I consider them one of the best flowers for cutting. You can get succession of bloom with Liliums by planting Asiatics for June, Trumpets for early July, and oriental and tiger lilies for late July and early August. Orientals and trum-pets are heavenly fragrant. Lilies spread rapidly by forming bulblets underground – it only takes a few years to create a large stand. Be sure to leave enough foliage on the stalk when you cut the flower – the leaves produce food which is stored in the bulb and this is what makes lily stands increase in size and have strong stems with a high bud count.

Digitalis or foxgloves are a large genus, all providing excellent cut flowers. The biennial forms (Digitalis purpurea, D. ‘Excelsior’ hybrids) are the most widely known and well-loved as old-fashioned cutting flowers. Biennials are often misunderstood. It is important to know their life cycle to assure flowers for cutting each year. A biennial grows only foliage the first year- it does not flower. The second year it sends out flowers, and then the flowers go to seed and the mother plant DIES. The seeds are allowed to ripen on the stalk and drops to the ground. Baby plants appear the following spring, and they are foliage plants that year, blooming the following year. If you want biennial foxglove flowers EVERY year, you have to have both generations, the foliage and the flowering generations, simultaneously. To do this, plant blooming sized plants (6” pots or larger), starter plants (in market paks or 3-4” pots) and the flowering generations, simultaneously. To do this, plant blooming sized plants (6” pots or larger), starter plants (in market paks or 3-4” pots) and seeds for the first few years. You will then break the every other year cycle of these popular biennials. If you don’t want to be bothered, you can choose from a wide range of perennial forms of foxgloves such as Digitalis ambiguа, D. luteа, and D. ferrugina. Digitalis lutea is my personal favorite with pale, creamy yellow delicate spikes 3-4’ tall in June and July. After blooming, the foliage remains shiny and attractive and this is a true perennial, coming back in the same spot year after year as well as self-seeding to new places. Foxgloves are poisonous plants, therefore, they are deerproof!

Annuals

Break away from the common annuals and try some unusual cutting flowers this year. The mainstays - zinnias, snapdragons, cosmos, marigolds- are fine and dandy, but your bouquets will really attract attention if you weave some UNUSUAL flowers into your designs. Verbena bonariensis is an annual that thinks it’s a perennial. You only have to plant it once and it will self sow year after year. I love its common name: “Verbena on a Stick”. It fits this flower perfectly!

Long, stiff, branching stems weave through your gardens, reaching 3-4’ in height. The flowers are small but abundant flat topped purple clusters. The more you cut this plant, the more it branches, and the more flowers it continues to produce. The seedlings sprout when the weather warms up, so learn to recognize them and be careful when you are weeding in late May and June!

Tender perennial Salvias are perhaps my favorite fall cutting flower. I grow them in the annual section because they are treated like annuals in the north, being hardy only to zone 8 or 9. If you want to try just one to start with, grow Salvia ‘Indigo Spires’. This plant begins blooming in August and continues until hard frost. It has 5-6’ spikes of rich deep purple-blue, flowers that often bend and curve in interesting patterns, adding a twist to autumn bouquets. I combine them with Dendranthemum ‘Sheffield’ or Rudbeckia triloba for unbeatable combinations.

**Conditioning flowers**

Many flowers must be conditioned first in order to drink water and last in a vase. Try to cut your flowers in the early morning or in the cool of the evening, avoiding the heat of mid-day. Bring a bucket of water WITH YOU into the garden. Immediately plunge the cut stems in water, especially if you will be harvesting for a while. Keep the bucket in the shade as you work. Once inside, strip the lower foliage off of the stems – leaves submerged in water for days on end encourage mold and rot. Once cleaned, put the buckets of flowers in a cool place such as a cellar for at least 2-3 hours. Many of the flowers described above will wilt and rot. Once cleaned, put the buckets of flowers in a cool place such as a cellar for at least 2-3 hours. Many of the flowers described above will wilt and will be unsuitable as a cut flower if you fail to condition them properly. Delphiniums have hollow stems and air bubbles often get trapped in them, preventing water uptake. Turn the flowers upside down and pour water down the hollow tube. Plug the bottom with cotton or a piece of floral foam, and then set in water. This will make your delphiniums last much longer. If roses begin to droop, plunge the base of the stems into rapidly boiling water for 3-5 seconds. Air bubbles trapped in the stems will gurgle out the bottom, and the roses will begin drinking water again. Oriental poppies and Euphorbias have a thick sap, which prevents water uptake. Burn the base of the stems for a few seconds until you see the white sap bubbling. They will then drink water. Be sure to remove the stamens from lilies before using them in wedding bouquets- the pollen will stain fabrics. Mist flowers on hot days prolongs their life, as does placing the vases in a dark spot during the sunny daytime hours. While the look of a vase of wildflowers on a sunny windowsill has romantic appeal, it will dramatically shorten the life of the flowers. Change the water and cut the stems one every one or two days to make all cut flower bouquets last longer.
Wholesaling Cut Sunflowers

by Paul Pieri
Maurolou Farm, Little Compton, RI

The following thoughts are based on my experience marketing cut sunflowers for the past eight years. I am a field grower and have no experience with out-of-season market conditions. I sell to supermarket chains, wholesale florists and farm stands. I make no retail sales of my own and have no experience with CSAs, farmers’ markets, or other retail outlets. My retailing comments are based on my observations and cooperative sales efforts at my farm stand.

The sales potential for cut sunflowers has been superb for the past decade. No one can predict the future and I would be foolish to suggest I can. That said, I am making my current plans on the assumption that demand during the summer and fall of 2000 will remain near or slightly below last year. Supply may increase slightly which would weaken wholesale prices. If demand drops drastically, it could force prices below the cost of production for many of us.

Your selling price is determined by two factors: first, the going wholesale market price, which is out of your control; second, your production costs plus profit margin which are within your control to a large extent. If you simply accept market price without knowing your production costs and the profit margin you need, then the profitability of your operation is entirely a matter of chance. You must know your production costs so that you can tell if you run a business or a hobby.

Your choice of market has a large impact on the extent the current wholesale market price affects your selling price. With many, but not all, wholesale florists and chain retailers, you must meet the price of the good quality sunflowers coming in from California, New Jersey, and Europe. There is a slightly lesser quality sunflower coming into New England from South and Central America at sometimes deeply discounted prices. Few, if any, of us can compete on price with the South and Central American crop and make a profit.

At the wholesale level do not count on a premium price for your pampered local crop. There is a very limited market for “super duper, fresh from the field, extra fancy, I kissed each flower before it left my farm” quality. Everybody who has been able to stay in business for more than a year or two is able to produce good quality sunflowers.

If you sell to individual florists, you can receive a premium for better quality, fresher product at some shops. Unfortunately, you will typically incur higher marketing and transportation costs, as well as lower volumes.

Those who sell retail can obviously command the highest price of all. Certain retail venues can sell moderate to high volumes as well, the best of both worlds! Several of the farm stands that I supply sell as many sunflowers in season as a small wholesale florist.

Setting your retail price for maximum profit is a true art. Too low and profit suffers. Too high and volume will drop so much that profit drops also. Move the price around too much and you will irritate and alienate your most valuable customers, those who make repeat purchases throughout the season. I wish I had the answer.

Your choice of market helps determine the varieties you plant. The vast majority of wholesale demand has been for the standard yellow petal on black center sunflower. Only the pollenless hybrid varieties should be grown for wholesale. They cannot be matched for vase life and uniformity by any open pollinated types. For retail or florist shop sales there is much more latitude in choosing varieties, although yellow on black is still the most popular. Local markets will surely differ, but there is increasing demand for the colored varieties throughout the season, particularly in the fall. Be aware however, that vase life on all the open pollinated, branching, colored types that I have seen is significantly less than the pollenless hybrids. Open pollinated types must be picked on the one day they are unfolding their petals and sold into the hands of the ultimate consumer as quickly as possible with excellent care throughout the market chain. If the consumer does not have at least 5 days of good vase life, they will be disappointed. This will hurt your market and ultimately hurt the cut flower market for all of us.

The reality is that most growers will not have the choice of all marketing options. We farmers work with what we have available due to our location, labor, transportation, and economic resources. I can offer two pieces of advice that I feel apply in all situations. 1) Leave all the junk in the field or packing shed. Ship only those stems that you would be pleased with if you were the consumer. 2) Know your costs and minimum necessary profit. You can then adjust to the continually changing market conditions with confidence in the economic success of your farm operation.
Camp Merrishko

by Jack Kittredge

The narrow valleys of central Vermont are little microclimates with particular growing conditions. Hot days are followed by chilly evenings, as cold descends from the mountains. Rain is often localized - on one side of a ridge but not the other. Frosts can linger into June and return in late August, depending on wind exposure and very local conditions. In such microclimates, some continue, particular crops do exceptionally well. The cold snaps, for instance, make for a little extra sweetness in corn, or slightly more brilliance in floral colors.

It was in such a valley that Jim Merriam and Clotilde Hryshko, proud proprietors of Camp Merrishko, bought their farm in 1990. Jim was born and raised in Vermont, grandson of a market gardener who sold peas, baby carrots and small cabbages to the Woodstock Inn. Growing up, he worked hanging tubes for a sugarmaker. After engineering school he got a job with Northern Power Systems which takes him all around the world, analyzing renewable energy systems. Clotilde came to the University of Vermont on a teaching scholarship while working for her masters in soil science. Jim and Clotilde are both the youngest child in their respective families, so had no difficulty deciding to pursue their dream of a life in the country after they met and married. They have a two and a half year-old daughter, Marya.

The farm, in East Randolph, Vermont, had been certified by Vermont Organic Farmers when they bought it. The soil was excellent, but of the 100 acres, only 5 were really tillable. The rest was pasture, which had grown back into forest on steep hillsides. Because of the limited space they have for crops, and the fact that the farm came with a house in need of repair and an expensive mortgage, Jim has kept his job and will do so until the mortgage is paid off. Additional land is hard to get as two local dairy farms have been buying it up for corn as it becomes available.

Lack of tillable land has shaped how Jim and Clotilde farm: “Everything here is totally planted,” Jim confides. “Our spacing is to get 5 rows in a bed that entails a lot of hand work. Jim and Clotilde have the width of the tiller. Then we put only a couple of feet in between beds, at most. I’d like to have the space to do tractor cultivation, but we don’t have it. The rows are so close we have to hand weed.”

Another limiting factor is a relatively short season. The land is on the line between climate zones 3 and 4, but a strong wind chill in the valley, which runs north and south, brings it firmly into zone 3. Frosts can be expected until June first, and then again in mid-September.

For fertility, the couple use aged manure which the local dairy farms bring and spread for them. Jim tills it under the same day. Given their lack of manure handling equipment, it would be a lot more difficult if the couple had to compost this manure before using it, as proposed federal organic standards might require. They do compost some, by hand, for use on crops like lettuce. The farm’s soil organic matter is very high for an agricultural soil - roughly 6%. Because of their space limitations, however, no land is left fallow and continued fertility is a constant goal of the couple.

Of the 5 acres they plant with mixed vegetables and flowers about half an acre is devoted to flowers, which account for a disproportionate 30% of their total sales. In addition they have 650 taps for maple syrup and do some spring bedding plants. They have tried raising animals, specifically turkeys and sheep, find they don’t like the continual responsibility that entails.

Five acres of crops without tractor cultivation entails a lot of hand work. Jim and Clotilde have the equivalent of one fulltime employee, plus a few people who help out at the farmers markets. “Weedings intensive!” says Clotilde. “We spend June and July weeding, usually. We’re the best employees we have. That’s how you keep your margin. If Jim were able to be on the farm fulltime we wouldn’t have to hire anyone.”

“With daylight shrinking,” adds Jim, “I come home and throw myself into this mad thing of doing all you can before the light goes! We work 60 hour weeks, plus every waking hour you’re thinking, managing, planning. We have our tasks we each do. That all takes a while to figure out. You need to learn who you are as a person, then who you are as a couple. There’s a lot of balancing. We took a day off recently and went to Maine. It was wonderful. You shouldn’t get used to things like that.”

Clotilde had worked at a pick-your-own berry operation in her youth, but otherwise neither she nor Jim had much real experience growing for market. “We watched other people have stuff early that we didn’t,” says Jim, “and started asking questions. It took us a year to learn about Remay. We started from scratch so that anything we’ve done we did on our own. I think our minds might have been a little more open to new ideas because of that.”

“We got into flowers early on when we first bought the place,” continues Clotilde. “We were learning to farm then, and flowers are much better at staying on the plant than, say, beans. So for the first couple of years it was in our interest to learn how to do flowers.”

Camp Merrishko has 4 greenhouses. Two are 14 by 48, one is 18 by 48 and the last is 20 by 48. In a normal year the houses provide extra heat for flowers during the growing season, but in a hot year such as 1999, even with the sides rolled up the heat was too much and a lot of flower buds didn’t set. They open up the house which has a wood stove and a propane backup heater about the second week of March. They bring out seedlings which have been started in the house in trays. A second house is unheated but has a double layer of poly. Jim and Clotilde open that up in April for early tomatoes or other crops, and the other two a little later.

The couple sell at 3 farmers markets a week - two midweek ones and one on Saturday in Montpelier. The midweek markets together end up totaling about half the volume of the Saturday one, but are useful to move greenhouse tomatoes and other crops that ripen between Saturdays. They also sell to a restaurant and a coop.

The pair have found that certification does not really make a big difference for their sales, since their customers are by and large dealing with them directly and don’t need any third-party assurance of

Clotilde and Jim stand amidst their zinnias, with amaranth behind them. Their greenhouses are visible in the background.

The Natural Farmer Spring, 2000

Clotilde sets up at the Montpelier market.

photo by Jack Kittredge
Jim and Clotilde usually sell everything they grow, and when they don’t the local food bank takes the surplus right at the market - so nothing is wasted. Clotilde likes selling to the restaurant because they are easy to work with. She picks for them along with picking for the Wednesday and Thursday markets, and just sets the order aside and makes a Friday morning delivery, getting the same price as at the market. The coop is a preorder. It doesn’t take much, but Jim and Clotilde are cutting back on it because they don’t get the prices there that they do elsewhere.

For the same reason the couple is not interested in selling wholesale to florists. They like doing mixed bouquets for market and find that their customers come back week after week. Most flower customers don’t buy vegetables, so they have hired a young woman who just sells the bouquets. That way flower buyers don’t have to wait while vegetable customers get their purchases weighed.

Both Jim and Clotilde make the bouquets they sell. Clotilde developed the style she likes by experimentation. She prefers a layered effect because it is efficient and lends itself to more of an assembly-line process. She harvests with the ultimate bouquets in mind, choosing material which goes together well and she knows people will buy. In the early fall Clotilde will often use a dahlia as the centerpice of a bouquet. In July she might use a few early zinnias from the greenhouse. She loves beautiful flowers like scabiosa, but feels that the labor of getting enough of them into a bouquet, compared to zinnias which are three times their size, is prohibitive.

For the Montpelier market the flowers are the last thing they pick Friday evening, going right into buckets of water. Then they make them up into bouquets that night. They take everything to market in a van - a bottom layer of vegetables and a top layer of flowers. They get up at 5:30 Saturday morning and are at the market by 6:15.

Two other vendors at that market sell flowers, but not vegetables. Each of them does about the same amount of business. In 1998 their peak was a September Saturday when they moved 105 bouquets. They sold the last one just before 1:00 p.m. In 1999, because of the drought, about 90 bouquets was tops.

“We get $4.25 for a bouquet,” says Clotilde. “We take mostly mixed bouquets to market, but also do single stems of things like gladiolas, sunflowers, and things that people can dry like Celosia cockscomb — that has been very, very popular. You sell more pastels in September, but people want dark colors when it gets colder, later in the fall. The mixed bouquet, our best seller, is like a CSA bouquet — you get what grew well this year! For instance we don’t have any asters this year, but we got a lot of amaranth. So we use amaranth in most bouquets. Some people don’t like it.”

Jim and Clotilde also sell a lot of dried flowers. Although they harvest them all summer, they wait until after Labor Day to take them to farmers markets. There’s a 5 week period from Labor Day through Columbus Day when they can do $300 a day in dried flowers to tourists. The Montpelier market also has an indoor farmers market just before Thanksgiving, where they can move any remaining dried flowers which haven’t sold already.

Clotilde makes several different types of dried flower arrangements — wall hangings, bouquets, etc. Exactly which she will make in a particular year depends on what flowers did best that year. Statice, for instance, does well in garlic braids. Artemisia makes great filler in the back of bouquets. To get really bright colors, Clotilde stresses, you want to dry the flowers out of the sun but in a place that is really warm, so they will dry quickly. She dries them in the third floor of the house because that is warmer than the top of their barn.

Clotilde keeps a constant eye out for new flower varieties which will fit in with her ideas about bouquets. “We’ve been experimenting with different varieties of grain amaranth,” she confides. “Amaranth is really designed for low rain-fall climates. In 1999 when we’d get one of those stupid sprinkles that was less than a tenth of an inch of rain, you’d look down at the amaranth and you’d see this ring of moisture around it’s base. All the leaves are shaped just to channel the moisture down to the roots.

Jim and Clotilde pick zinnias

Some of the bouquets Clotilde and Jim sell at the market.

“We tried out two more celosia this year,” she continues, “which I was happy with. Johnnies ran a new verbena, which was tall and white. At first I didn’t like it, but now I do. Asters and zinnias and sunflowers are the bulk of our bouquets for a lot of the year. I’m sold on them. We harvest all the gomphrena we want for dried flowers, then use the balance for fresh cut. Ageratum is an early producer and some varieties of celosia and statics are interchangeable in bouquets.

Jim and Clotilde like the name Camp Hryshko for their farm. They reason that there are too many people who own property and call it a farm. They might have a horse or two and it’s really a second home, a summer home. Clotilde would much rather have a working farm and call it a camp than the other way around! “Having a farm”, she sighs, “used to mean you were from the backwoods. Now it means you shop at Smith and Hawken!”

photo by Robert Eddy

photo by Bonnie Fallon
Our Edible Flowers
by Steve and Michele Ramos

We have a small certified organic farm in Bristol, Rhode Island, and have been growing edible flowers, along with a variety of other herbs and vegetables, for about fifteen years. So we don’t consider them to be the latest fad. Alyssum, cornflower, borage, calendula, pineapple sage, gum marigolds, scarlet runner bean blossoms, and pansies are some of the annual flowers we grow. Our perennials include anise hyssop, cilantro flowers, chive and garlic chive blossoms, chamomile and chervil.

Our most popular flowers are nasturtiums, pansies and pineapple sage. The unique flavors of borage, with its cucumber taste, nasturtium with its peppery taste, anise hyssop with a licorice taste and pineapple sage with its sweet and fruit taste, make them an interesting addition to salads and other dishes.

The flowers are harvested early in the day they are to be sold. We pick only perfect flowers and make sure they are insect-free before packaging. They are refrigerated soon after harvesting. We sell the flowers as a mix to Bread and Circus in small plastic trays that showcase and protect the blossoms. We also sell flowers to restaurants in larger plastic containers with the requested number of blossoms. The flowers are used by the chefs for garnishing, cooking, and in salads.

Our flower harvest begins in March with pansies and violets grown in coldframes and continues in the field with warm weather flowers like nasturtiums. The harvest usually extends into early December.

Edible flowers are easy to grow and provide color in the garden. Though they are a small part of the many different crops we grow, they have proven to be very profitable.
Value-added Flower Products for Off-Season Farmers’ Markets

by Karma Glos, Kingbird Farm

Kingbird Farm is a small organic operation in the hills of Berkshire, New York. We raise vegetables, herbs, flowers, poultry and meats. Still in the early years of our development, we continue to experiment with different crops and processing options. We currently retail directly on the farm and at the local farmers’ market. Market gives us a good opportunity to try out new product lines, particularly in the off-season when we have few vegetables. These products have included dried flowers, potpourri, tea, dried herbs, and garlic braids.

When I initially began by market flower and herb beds I envisioned grand rows of towering cut flowers and ornamental herbs. I fancied spending my Saturday mornings arranging bouquets for market and selling them by the bunch. I hoped fresh flowers would fit nicely with our vegetable display, and initially I always had a few bouquets or fresh flower wreaths. These sold very well and I truly enjoyed the work, but those were rainy, cool springs and the insects had yet to find us.

Following the next two dry years, reality finally hit me. With no practical irrigation and tarnished plant bugs breathing down my neck, cut flowers were not practical, or even possible. The zinnias were stunted, the lavatera nibbled, and the larkspur crooked. Despite the urgings of my husband, however, I continued to struggle to coax color from the ground.

The summer of 1999 saw the final gasp of my flower operation. The 4’ x 100’ terraced beds cracked like concrete and the flowers blossomed only meekly. Customers and neighbors commented on their beauty during that crispy brown summer, only to turn into a way for me to work with flowers without the pressure of growing long-stemmed perfect cut flowers. This year, with the addition of drip irrigation, better insect control, and careful variety choices I hope to grow more.

As summer waned I began pulling flowers down from the attic and crafting them into potpourri. I knew that soon we would have few vegetables for our market stall and in the fall I like to fill it with value-added products like packages of dry beans, herbs and flowers. I had prepared potpourri in previous years, but never had I dedicated my entire flower harvest to its production.

I start potpourri two months prior to packaging in order for it to be well cured. I combine flowers, herbs, leaves, twigs, and spices to create a complexly scented, visually pleasing mix. To this are added high quality essential oils and a fixative such as orris root. The mix is then sealed in bags or jars and stored in a cool dark place for curing. When the mix is done I package it in small cellophane bags, tie it with a ribbon, and label it. Along with the clear cellophane bags, I also prepare small, colorful fabric sachets that can easily be tested by the customer. Finally, I try to assign a price that reflects not only the natural, handcrafted aspect of my product, but also my time and materials.

Learning to craft and sell this simple product has had many positive aspects. First and foremost, it sells. The rows of brightly colored bags enhance my fall/winter display and virtually everyone who stops at my market stall samples the potpourri. Secondly, it is a very successful way to utilize what might have been a complete crop loss. I can turn a failed crop into a value-added product with good shelf life and marketability. This venture could quite possibly turn into a way for me to work with flowers without the pressure of growing long-stemmed perfect cut flowers. This year, with the addition of drip irrigation, better insect control, and careful variety choices I hope to grow and market potpourri products more.

Kingbird Farm is on 9398 West Creek Rd. in Berkshire, NY 13736. You can contact Karma at (607) 637-2860.

Photo courtesy Karma Glos
Designer Annuals: The Latest Goldmine?

by Pooh Sprague

Every year I go to conferences and farm twilight meetings. I get all fired up over the latest niche market concept that someone has developed. I come home hoping to cash in on it as well. That is because we as market farmers are horticulturalists who are very flexible in our choices of what we grow. It matters more that a crop be produced profitably and that it will fit in with our growing systems. I know of a grower who is good at growing cole crops but because he has done it for so long, he continues to do so even though it is barely profitable for him. We of Edgewater Farm in Plainfield, NH have been growing strawberries for 25 years and yet we don’t see ourselves as strawberry growers. Strawberries are just one of the mix of crops we grow to earn our way. As a result we have gone to meetings and been lured into specialty or niche crops like mesclun, obuse varieties of summer squash, and fall raspberries, to name a few.

My wife Anne and I purchased our farm in Plainfield, NH in 1974. She grew up right down the road on a dairy farm. I grew up on a hill farm in Hillsboro, NH. It was our original thought to go into dairy farming, but we couldn’t afford to get into that so our county agent (who is now UNH Extension Fruit Specialist, Bill Lord) encouraged us to grow strawberries for U-pick. Our fine riverbottom soils were well suited for row crop agriculture. Having some success with strawberries, we started growing vegetables for retail (out of the back of a pickup truck). As an adjunct, we put up our first greenhouse in 1978. We opened our roadside farmstand in 1983 and have been at it ever since. Today we farm around 65 acres of tillable land, growing small fruit and vegetables with 32,000 feet of greenhouse space that is devoted to greenhouse vegetables and ornamental crops, supplying two farmstands.

And so it was that I recently found myself talking about exotic or designer annuals at the New England Small Fruit and Vegetable Conference in Sturbridge this past December. Instead of being the victim of a new idea for annuals at the New England Small Fruit and Vegetable Conference in Sturbridge this past December. Instead of being the victim of a new idea for niche marketing, I found myself victimizing others.

So what is this idea of “designer” annuals? And how can you (or should you) try to get on board this gravy train?

Within the last 5 years there has been a heightened interest in ornamental gardening. This is a result of a couple of things. First is the media. Trendy TV homeowner shows promote and reintroduce gardening concepts to a hungry audience who have more disposable income than ever before. Giant merchandisers have acres of floor space devoted to products designed to capitalize on the increased interest in gardening. Martha Stewart very cleverly uses the media to disseminate horticultural concepts, and then is able to capitalize on the feeding frenzy at the merchandising end. All of this media, marketing and merchandising has heightened the interest and sophistication of the American gardener who twenty years ago was content to plant red geraniums, yellow marigolds, Early Girl tomatoes, and call it a day. That same gardener today is tending border beds of mixed annuals and perennials, growing containers of mixed annuals and tropicals, and his vegetable garden may have arugula and basil between the heirloom tomatoes. They want to try something different. This is where we farmers come in. Many of us who own farmstands currently grow bedding plants for sale in the spring. It brings much needed cash into the operation early in the season and for many of us provides a pretty serious chunk of our total seasonal revenue, as it does here at our farm. All this merchandising and media attention brings some pretty big players into the market. Every WalMart, K-Mart or local gas-deli mart has entered the fray, selling plants from Mothers Day on. How are we, as small independent family farmers, going to compete?

You are going to compete by differentiating your business from others. There are a number of good ways to do that, and there are people more qualified than I to write about them. But ten years ago we started to look at ways of differentiating ourselves from the bedding plant competition and we decided we could do that by offering a different product mix. We tried to think of the plants that we had inquiries for over the years and decided that maybe we should try offering them. The classic request in the early 80s was “Do you have any old fashioned petunias with a scent?” We also had some requests for old-fashioned scented nicotiana as well, so we decided to try to source out some seed and try offering them.

At the same time it became apparent to me that all of the farmstands, greenhouses and green retailers in the area sold the same twenty cultivars of seedling and zonal geraniums. So I began looking for different or old-fashioned varieties of geraniums, and after reading a couple of books on the subject went about collecting stock and trying to propagate it. The public responded favorably and though they didn’t embrace every new or different plant that we offered them, they did embrace the fact that we were trying to offer them an expanded variety of choices.

Today, as an adjunct to our “staple” varieties of bedding plant varieties that we offer from the major seedhouses and propagators, we offer about 150 additional plant species that we select and propagate vegetatively here at the farm. Mind you, this all coincided nicely with the increased interest in ornamental gardening and people having more income to devote to it, as well as our farm being located in what has essentially become an attractive suburban neighborhood. In both cases we were very lucky to be at the right place at the right time with the right product.
So far this makes for another exciting success story in niche marketing. But before you run out and find a source for passion flowers and banana trees you better read and find out what else you must lay out before you can cash in.

First and foremost it must be understood that you need to have an adequate greenhouse facility to winter stock over and propagate in. We are definitely at the low end of the technology curve, but we still have a small mist system, 250 square feet of root zone heated bench space, five HID lights, and an oversized heater for the 21 x 96 foot poly house in which we winter and propagate our stock. You are trying to grow plants at the wrong time of the year and to offset the low light levels and cold temperatures, a certain amount of additional heat and light is needed that you would not normally need were you to start your greenhouses the first of March. You can start smaller with incandescent and heat mats, but without the additional heat and light both the stock plants and rooted cuttings require, you are doomed. It is our experience that capital outlays in the greenhouse areas are easier to swallow after you have spent some money on farm machinery: for instance, having received a bill from the local tractor dealership for splitting the tractor and putting in a new clutch. If you can justify the cost of that repair you should be willing to go the expense of upgrading part of a greenhouse to a propagating facility.

Now that you have spent the money to upgrade to a prop house and it is stocked with exotic plants you (or somebody else) has to run this thing during the winter. Many leaf and root pathogens that plants can compete well with during summer periods of low humidity and high light levels will now have a greater effect on the plants in periods of high humidity and low light levels. In short, it is dramatically trickier to grow plants in December and January than it is in March. And if the power or the furnace goes out some night in January, it does not take any time whatsoever to freeze out a house — and it will happen ten times as fast in January as it does in April.

Sound exciting so far? But wait, there is more.

There is a learning curve for growing designer or exotic annuals. You can go to the back of any seed catalog and find cook book instructions for growing geraniums, marigolds, impatiens, tomatoes, etc. All rooted pak material you purchase from the large propagators comes with growing instructions. With designer annuals you must learn how to grow them, learn how to propagate them, and trial them in the garden to see how they perform in your sales area. (Your banana trees won’t grow as tall in Hardwick, VT as they will in Apopka, Florida.) This entails some amount of bookkeeping, or a photographic memory. I possess the former, although it can hardly be construed as bookkeeping. There are sheets and calendars with notes scribbled on them. Whichever you choose, it will be good to document what and how you do it. You can by-pass the whole propagating process as there are some small propagators emerging in the New York - New England area who will do wholesale. But as this end of the industry is still small, it comes with the complications of supply. It may, however, be a good way to try out your market without investing much money.

And the last, but not the least, hurdle you must overcome is selling the plant.

You really don’t have to sell a geranium, alissum or a marigold. Everybody knows what they are, what they look like, and they come to your establishment pretty much knowing whether they want them or don’t want them. New plants introduced by the major propagators like rosebud impatiens, scaveola, bacopa, etc. come with sales and marketing tools such as point of purchase information. When a customer picks up a salvia guaranitica in a four inch pot without a bloom, they are definitely going to need some information on that plant and it is your responsibility to provide them with it. They will want to know what it looks like, what it looks good with, and how to grow it. That is where trialing plants in your gardens will enable you to help the customer with that information.

What designer annuals should you acquire and propagate? The first and foremost thing you should do is listen to your clientele and respond to them by offering plants and varieties that they ask for. Chances are if one person asks for a plant there will be others who want it as well. Put down the latest copy of The Natural Farmer and pick up a copy of Horticulture. Gardening trends are defined there, oftentimes with descriptions and sources of specific plants. And watch the gardening programs instead of MTV or your favorite wrestling program! You will get exposure and cultural information in detail from them. Listen to Martha Stewart. The high priestess of homeowner horticulture not only defines trends but dictates them. There are plants in our collection that Martha Stewart single handedly put there because she used them, talked about them, and promoted them.

So where does this booming interest in designer or exotic annuals end? I don’t know. Will you get rich from jumping on the bandwagon? Probably not. Will you make your greenhouse activities in the spring more complicated? Yes. So why bother doing this?

Because it is a product of demand. Because by offering something different you are separating yourselves from your competition, you are finding a niche. Like we found with fall raspberries, mesclun and eastern summer squash, there is no easy money to be found in agriculture. But the success story of the Walmarts, as well as the gas-deli marts, is that they offer variety as well as convenience and service. By growing and offering designer annuals alongside of your regular selection of bedding plants, you can provide the selection and service that gardeners seem to want in this expanding market.
Conference (cont’d from page 1)

Beautiful! We are working to put a panel together, and we encourage you as our mentor. If you are interested in being on the panel, you can contact Richard Murphy at (508) 867-5735, email rmurphy@star.net or Jack Kittredge at (978) 355-2853, email jacklitt@aol.com

This year’s Children’s Conference is being co-ordinated by two extremely energetic young moms, Justine Johnson, and Barbara Cohen. These women really impressed us at the last meeting. They already have their whole line-up of presenters and workshops together! But because they want this conference to be the best ever, they are inviting anyone with suggestions or comments to contact them. Justine can be reached at (413) 527-1920, email JSL145@aol.com, and Barbara’s number is (508) 797-3389, email becheni@gis.net We’re lucky to have such an enthusiastic duo on staff this year!

In food news, we have decided to put our money where our mouths are - Saturday night will be a strictly LOCAL organic meal. (Local will be defined as the seven-state NOFA area). Don’t expect your coffee, bananas, or carrots - and that’s just for starters! Get inspired and come to the debate afterwards with your insights. We are thrilled to have a new food enthusiast, (and JR’s mom,) Beth Ingham designing our menu for the conference. Be prepared for a real treat! We are in the midst of troubleshooting through a new approach to the food lines. We will pass out a cafeteria layout ahead of time so diners can see what their options are. Ingredient lists will also be available this year. In terms of supplies, we are currently in need of a source for certified chickens and certified organic milk. If you have any information as to a source for these provisions, please contact Rita Horsey, food coordinator extraordinaire, at (508) 529-6148, email ritasur.net

Before we know it, it will be time for registration. For those new to NOFA, every year we have some money ear-marked for scholarships. Only adults are eligible, and you must be a current NOFA member (or may join when applying). Scholarships will be given out according to the following guidelines:

1. Scholarships are given on a first come, first served basis.
2. Applicants willing to work 4 hours unreimbursed during the conference will receive a maximum scholarship of 50% of full registration (before early bird deadline).
3. All scholarship applicants will be strongly encouraged to pay as much of the fee as they can and to volunteer during the conference.

We have no problem with people applying for scholarships for several years, but we do strongly urge you to meet your obligations (for example, work the hours promised) in order for our system to run smoothly. Through new organization we will have an easier time monitoring the whole process, and hope that all those endowed will give us their utmost in cooperation.

New to the Summer Conference Committee this year is Joanne Duros. Joanne and her husband Van own and operate a timber framing business in Petersfield, MA. For years now, they have been educating the NOFA masses with their informative workshops. They’re back at it again in 2000, promising to erect another building during the conference weekend! The Summer Conference Committee is thrilled to have Joanne with us this year. She is one of the many individuals who enrich our experience at NOFA!

Revised Rule (cont’d from page 1)

The public review of standards, National List recommendations, and setting up the Manual development. The NOSB should make transparency and public participation paramount, and hold public hearings throughout the organic law making process. To maintain the integrity of the board, the criteria for selection of members of NOSB proposed by the coalition of OTA, The National Campaign and others needs to be respected.

The national organic program must also provide for regular revisions, as is customary among existing organic certification systems. This provides a manner that is democratic, transparent, and that minimizes bureaucratic obstacles. If the community evaluation of this rule is that it does not meet community standards, then we should consider taking this process back into the private sector.

5. Do not weaken existing standards. The national standards need to refer to current standards currently in use on organic farms and certification programs. Any lowering of standards would mean that the USDA approved organic label would be in conflict with current industry practice, consumer expectations, and international standards. Organic processors should be held to the same high standards as farmers in regard to the use of synthetic ingredi- ents.

6. Consumer Right to Know. The primary impetus for organic standards comes from the desire of consumers to know that they are getting food that is produced under certain conditions. It is important that these standards meet the expectations of consumers and provide them with the possibility of voting in the marketplace for the type of food and agriculture that they want.

How should the NOFAs respond to the federal organic program? If we like the Rule, it will be easy. Our certification programs have been second guess- ing the NOP for years, trying to adjust in advance to expanded demands that the Rule sets. If we hate the Rule, it will also be easy. We will join in the community protests and find a way to defund the NOP, repeal the OPFA, or take USDA to court. Campaign and OTA lawyers have already explored the legalities of these options. The timely completion of the American Organic Standards puts the organic community in a strong position in any future political maneuvers or negotiations with USDA. The AOS does an excellent job of codifying the existing system of organic certification. We continue to believe that there is agreement among US organic certifiers on the meaning of organic. Discussions are going on at this time between representatives of the US organic community and the International Federation of Organic Agricultural Movements (IFOAM) to clarify the relationship of AOS to the IFOAM Basic Stan- dards.

The most difficult case will arise if, as promised, the Rule gives us 80% satisfaction. The unacceptable clauses will be much harder to phrase as sound bites than with the earlier Rule. How far are we prepared to compromise? Personally, I believe that our certification programs have already moved too far from farmer education and farm improvement toward regulatory control. I understand that this has occurred in the effort to avoid any semblance of the inspector acting as consultant or sharing confidential information from his inspection. Most certification programs have struggled for procedures that assure transparency, verifiability and preclude all possible conflicts of interest between the certifiers and the producer. But by the time of production, we have lost sight of the broader social and eco- nomic goals of organic farming, many of which are not easily ‘verifiable,’ or would require a level of invasiveness of privacy that surpasses what we can imagine tolerating. As it turns out, we were correct - large farms can be managed using organic methods. But instead of rejoicing, we have the cold comfort of finding our smallest farms more vulnerable to the economic backwash already inhabited by small conventional farms, the few which have managed to survive. A national organic standard that assures New York shoppers that Grimway Farms or Cal-Jar organic carrots are as organic as mine does not help me in the marketplace. When Horizon crowds Russell Van Hanziga’s Brookside Farm out of the high-end business, we need to reexamine the value of certification in its present form. From both marketing and philosophi- cal perspectives, we need to differentiate our farm- ing from organoagribusiness.

I invite those of you who feel the way I do to join me in figuring out how to raise the organic bar higher. If I label my products at all, I would like that label to mean food that is not only ecologically grown, but also treated with human dignity and respect - treated to social justice for everyone in the food system, food safety and security for people of all income levels, humane treatment of all critters, and living lightly on the planet. My local customers know this and that is one of the reasons they go to the trouble to join our CSA. Many of them assume that all organic farms have similar values.

The IFOAM Basic Standards include general principles on social justice. In joining IFOAM, the NOFAs and OTA have agreed to uphold these principles. This is the language from IFOAM, Social Justice and social rights are an integral part of organic agriculture and processing:

Recommendations:
1. All International Labor Organization conventions relating to labor welfare and the UN Charter of Rights for Children should be complied with.
2. All employees and their families should have access to potable water, food, housing, education, transportation and health services.
3. Social security obligations should be met, includ- ing benefits such as maternity, sickness and retire- ment benefits.
4. All employees should have equal wages when doing the same work and they must have equal opportunities irrespective of color, creed and gender.
5. In all production and processing operations, labor conditions regarding living and working envi- ronments must reflect the highest standards need to reflect the highest standards applied to chemicals should be within acceptable limits and workers should have adequate protection.
6. The right of indigenous peoples shall be respected.

Standards:
10.1. The certification program shall ensure that operators have a policy on social justice.
10.2. The certification program shall not certify production that is based on violations of basic human rights (in cases of clear social injustice).

The ILO Convention affirms the rights of all workers and employers to establish and join organi- zations of their own choosing, that is, to form cooperatives and unions and to bargain collectively.

The only mention of these issues in the AOS occurs in Section 3: Principles of Organic Production and Handling: “3.4 Organic production systems strive to achieve agro-ecosystem integrity and achieve socially and economically sustainable.” While the AOS section on eligibility for certification covers use of prohibited substances, for the first time, test- ing, there is no clause on human resources.

By contrast, the NOFA-NY standards are much further along, including in our principles: “to ensure non-exploitative treatment of farm workers.” Section O. ‘Labor, Farm Workers, Apprentices,’ states: “We must recognize and appreciate the value of farm workers and their contributions to agriculture. It is important that labor policy, treatment, safety and compensation be consistent with the spirit and intention of these standards. Many farms have unique situations with apprentices and trainees that involve special qualifications. Benefits and educational opportunities and other compensations. We remind all farms to review applicable NYS Department of Labor regulations, and the Worker Protection Standards from the EPA.’

Back in 1989, all of the northeast certification programs, the NOFAs and NOGWA, agreed on principles like NOFA-NY’s. This is a good place to start. Please let me know if you would like to work with us in fleshing out these principles and how agriculture will truly reflect the values by which we choose to live our lives.
**Book Reviews**

*We’re Gonna Be Rich!* Growing Specialty Cut Flowers for Market
by Frank and Pamela Arnosky
published in 1999 by Fairplains Publications, PO Box 3747, Lawrence, KS 66046 (785) 748-0605 168 pages

reviewed by Jack Kittredge

The Arnoskys publish a regular cut flower column in Lynn Byczynski's magazine *Growing for Market*. This book is a compilation of all the columns from 1995 through 1998. The title of this volume is Frank’s tongue-in-cheek comment every time they come up with a new variety or marketing scheme. And this book is full of them!

The couple farm in Texas, so they are blessed by a northeast. But the book is organized by the seasons and still reflects an annual cycle. Much space is devoted to discussing varieties, and with that ready familiarity that comes from years of trials and market experience, plus a keen sense for how new varieties will work out once, so to speak, the bloom is off.

While part of the Arnosky’s job is to report what the industry is saying about trends, they keep a sense of where part of the Arnosky’s job is to report what the industry is saying about trends, they keep a sense of...
deceased. These balls were then placed in the bows of trees at nightfall. Crows and ravens would then take those messages to the departed. I also learned of “English Pesto,” a mix of sage, walnuts, goat cheese and olive oil as well as “Greek Pesto”, containing oregano, feta cheese, almonds, cumin and olive oil. There is so much information in this book! It may not make you a more productive gardener, but I have no doubt it will add to your enjoyment and appreciation of your garden and the time you spend with it.


Being a flower farmer myself, I was glad to get this book to review. I had heard of Lynn Byczynski through the newsletter, Growing for Market, that she edits and publishes. I assumed that I would learn a thing or two from her book, and I was not disappointed. For growers who have been raising cut flowers for market, this book will cover familiar territory. Unless you know all there is to know on the subject, however, I’m sure you will gain some useful information. I found the grower profiles that occur at the end of each chapter most interesting. The stories of, and comments made by, these farmers and marketers hold valuable lessons. For those who are relatively new to this type of farming or for those who are considering starting a cut flower garden, this book would be a valuable resource.

Be reviewing the table of contents one can see how thorough Ms. Byczynski has been in the treatment of the subject of cut flowers. The first chapter is titled “Choosing Varieties.” Here she talks about annuals, perennials, the best cuts for your region, their ease of cultivation, long vase life, and overall suitability in arrangements. Each listed flower comes complete with a brief description along with guidance on cultivation, cutting, and preserving. Chapter two covers choosing a site and improving the soil to maximize plant health. Composting, cover crops and making raised beds are some of the topics covered. Her support of organic practices is evident throughout this chapter as it is in the rest of the book. Buying and starting plants are covered in the next chapter. Here she discusses the difficulty in finding locally organically grown starts. The importance of using organic practices in growing seedlings and instructions on how to start seeds yourself are given.

Next Ms. Byczynski covers growing in the field. All the bases are touched here, including direct seeding, transplanting, watering, weeding, supporting, pests, and planting under tunnels. In this chapter you will also read glowing testimonies of the benefits of landscape cloth, in case that is a decision you are grappling with. Chapter five’s topic is dried flowers. All the common methods of preserving are discussed with their pros and cons, as well as the best time to use each method. It was in this chapter that I learned how to get the stems of my statice to look as green as commercially available statice I have seen. The trick: stick the statice in a vase with a solution of one part glycerine to two parts warm water to which is added a little green dye. The statice will soak up the liquid, so only put about an inch in your container. The dye will turn the stems green, green and won’t bleed except in white statice. There are also tips for selling your dried flowers and ways to deal with dried flower pests. Woody ornamentals comprise the next chapter. You will learn how to choose, harvest, and force these types of plants. There are some farmers who have dedicated a good portion of their growing area to woody ornamentals including bittersweet. For fruit growers, you may find a use for all those prunings.

Everyone is sure to find information he or she can use in chapter seven, which deals with harvest and post-harvest. I never considered the effect of ethylene on cut flowers but, as the accompanying chart will show, some flowers are sensitive. Other topics covered are the best time to cut a flower according to its life cycle and the best time of day to cut. The author cuts her flowers in the evening and allows them to rest overnight before she bunches them. There is a discussion on harvesting and holding peonies. Cooling and transportation are also covered here. Chapter eight is a short course on flower arranging. Listed are what you need and what the flowers need to form an arrangement. Then, by reading the rest of the chapter, you can go from having a bunch of flowers to being able to create those arrangements that artists dream of painting a still life of. Once you have mastered the proceeding chapters, you are ready for chapter nine, which deals with going commercial. The questions of how to develop a market, how to set a price and how much to plant are discussed and answers are given. The chart of the ten most profitable flowers should be food for thought even if it doesn’t meet universal approval. The final chapter on marketing covers just about every outlet. There is coverage of retail, wholesale, cases, subscription, pros, farmers markets as well as shipping, supermarkets, and an outlet that was new to me — bouquet makers. In short, there should be an outlet for everyone. If you grow it you should be able to sell it. The virtues of starting small and of patience are emphasized.

My recommendation, if you are a grower already: at the least get a hold of a copy of The Flower Farmer and read it. I believe you will find it useful. If you are thinking about entering the world of cut flowers or you are just beginning in this area, then the book would be a good investment. There is a lot of information here that you will find yourself referring back to.
Alternatives to Insecticides for Managing Vegetables Insects
published by NRAES, NRAES-138
84 pages, $8.00, ISBN 0-935817-49-2
reviewed by Stan Ingram

If you have found conference proceedings informative but dry, these will pleasantly surprise you. In the introduction to the publication Kim Stoner, who put the conference and the proceedings together, relates this observation: “One comment I heard from several farmers was that they had never been to a conference where so many of the scientists spoke freely about what they don’t know.” I also found this to be true as I read through the proceedings. It was refreshing. In putting together this publication, Ms. Stoner also included transcripts of the question and answer sessions that occurred between the audience and the presenters. This open exchange of information and ideas I found as educational and helpful as the transcripts of the presentations themselves.

The conference was conducted in four sections with a number of presenters in each section. At the end of each of these sections was the question and answer period. The first section was titled “The Effects of Plant Health and Soil Health on Susceptibility to Pests.” Here Eliot Coleman talked about his philosophy and experiences on his farm. Researcher P. Larry Phelan from Ohio State University talked about his work with soil management and the effect that has on corn’s susceptibility to pests. The gist of these talks was that plants receiving a well balanced diet would have less pest pressure. Session Two dealt with “Putting Biological Control to Work.” Talks were given by a number of people, both researchers and farmers. Some of these were on how to encourage biological control through crop diversification. Sharad C. Phatak from the University of Georgia spoke on cover crops and conserva-
tion tillage. Elizabeth Henderson gave her farm’s philosophy: “Our whole approach to pest control is balance, where we understand that we can live with a certain amount of pest damage, we can encourage predators and beneficials to live here, too, and the system can take care of itself with very little input.” Bio-strip intercropping was covered by Steve Gilman and biodiversity in farm vegetable production by Michael T. Keifly. Other presentations in this session were Cass Peterson on insect habitat and Mike Hoffman on the history of bio-control. Table I came out of Mike Hoffman’s talk illustrating the need to preserve habitat for beneficials.

Strategies and tactics currently in use by organic farmers were the topics of section 3. Talks by Eric Sideman from Maine, Emily Brown Rosen from New Jersey, and Myra Bonhage-Hale from West Virginia were given. In Table 1, some of the practices of Maine growers in dealing with specific pests are given. There were also helpful comments from the audience. Section four was broken down into small group discussions on specific pests or crops. Corn and sweet corn, the cabbage family and flea beetles, the potato leafhopper, cucurbit crops, solanaceous crops, the tarnished plant bug, and the Mexican bean beetle were the areas. Each discussion began with a presentation and was followed with a group discussion.

If organic growers weren’t spread out all over the map we would be having these exchanges of information at the local coffee shop or some other congregating spot. Since that is not the case, it is good to have these types of meetings. For those of us who did not make it to the conference and for those who were there and want to ensure they did not miss anything, it is great to have these proceedings. For any grower who wants to know the skinny on what the latest information is for dealing with our insect co-harvesters, then this would be eight dollars well spent. It might even help to encourage more of these forums.

Stolen Harvest: The Hijacking of the Global Food Supply
by Vandana Shiva
published by South End Press, 7 Brookline St. #1, Cambridge, MA 02139. (617) 547-4002
140 pages, $14.00, ISBN 089668-607-0
reviewed by Jack Kittredge

Vandana Shiva was one of India’s most respected nuclear physicists until she abandoned her career out of a concern that the impact of nuclear systems was detrimental to living systems. She has since built an international reputation (including earning the Alternative Nobel Peace Prize – the Right Livelihood Award – in 1993) as a champion of Third World environments and peoples. Despite the statistics from modern “developed” nations, fully 75% of humankind is still involved in agriculture. Of these, every fourth farmer is an Indian. Stolen Harvest is an absorbing book detailing exactly how globalization has so effectively destroyed local economies in India. It has separated farmers from the most basic tool of their craft - the seed. It has replaced diverse, efficient local food production with wasteful and expensive imported crop monocultures, designed for export markets. It has allowed private, patented ownership of irre- placeable public resources such as genetic stock.

In a chapter entitled “Soy Imperialism and the Destruction of Local Food Cultures”, Shiva recounts the total replacement in India of local mustard seed cooking oil by imported soy oil over just a few months in 1998. India is a country with many regions, she says, each with it’s own taste in food. Mustard, which was originally developed as a crop over thousands of years by Indian farmers, is not only important for medicinal purposes but also is the source of a pungent cooking oil preferred throughout most of northern India. The oil, which also is used to light ceremonial lamps and to repel insect pests, is extracted from mustard seed by small scale village-level expellers and crushers.

In August of 1998, however, an apparent massive adulteration of mustard seed with seeds of a toxic weed and with petroleum products led to a banning of mustard oil sales in Delhi and most of the other cities of northern India. To replace the cooking oil the government announced the import of 1 million tons of oilseed soybeans, later broadened to an unrestricted import of soybeans. The widespread adulteration of mustard seed is still unexplained, although the health minister of Delhi has stated that it would have been impossible without an organized conspiracy.

As a result of the crisis, mustard seed prices fell from 2200 to 700 rupees/100 kg. Small-scale oil processors have been thrown out of work and consumers have been left with no alternative but soy oil for a vital cooking function. Once farmers have been priced out of the market, of course, mustard seed will rapidly disappear. At that point, Shiva says, we will pay attention to the curious fact that Monsanto has patented the rights to the Indian mustard plant. If it were to be reintroduced later, every seed would carry a royalty payment.
Shiva calls this theft. She says, “what the industrial economy calls “growth” is really a form of theft from nature and people.” She cites the example of a monoculture — what many in the modern world would cite as a gain in efficiency is really a trade-off in production at the expense of soil fertility, water purity, ecological diversity, and human happiness. As an example, she talks about the supposed triumph of the Green Revolution:

“It is often said that the so-called miracle varieties of the Green Revolution in modern industrial agriculture prevented famine because they had higher yields. However, these higher yields disappear in the context of total yields of crops on farms. Green Revolution varieties produced more grain by diverting production away from straw. This “partitioning” was achieved through dwarfing the plants, which also enabled them to withstand high doses of chemical fertilizer.

However, less straw means less fodder for cattle and less organic matter for the soil to feed the millions of soil organisms that make and rejuvenate soil. The higher yields of wheat or maize were thus achieved by stealing food from farm animals and soil organisms. Since cattle and earthworms are our partners in food production, stealing food from them makes it impossible to maintain food production over time, and means that the partial yield increases were not sustainable.

The increase in yields of wheat and maize under industrial agriculture were also achieved at the cost of yields of other foods a small farm provides. Beans, legumes, fruits, and vegetables all disappeared both from farms and from the calculus of yields. More grain from two or three commodities arrive on national and international markets, but less food was eaten by farm families in the Third World.

The gain in “yields” of industrially produced crops is thus based on a theft of food from other species and the rural poor in the Third World. That is why, as more grain is produced and traded globally, more people go hungry in the Third World. Global markets have more commodities for trading because food has been robbed from nature and the poor.”

Shiva is on an international campaign to reclaim food democracy. She supports strengthening nature in agriculture through local organic farming, seed saving and fighting genetic engineering. She spoke in Seattle on the eve of the WTO protest and urged people to take back control of their food supply from the corporations and their nation-state vassals. This little book is a clear statement, from an international perspective, of the cause the protesters in Seattle were supporting.

**Keeping Foods Fresh**

**Old World Techniques and Recipes**

by the Gardeners and Farmers of Terre Vivante

published by Chelsea Green Publishing

197 pages, $16.95, ISBN 1-890132-10-1

reviewed by Stan Ingram

Have you found yourself feeling that you want more out of your “preserving” experience than you’ve been able to get from the typical books on canning? Are you the type of person who always wants to be the first on your farm to try something different? Perhaps you are longing to have something French? Could you just want to maintain the highest nutritional quality of the foods you preserve? Maybe you are a radical who is concerned with energy consumption? If you answered yes to any of the above or if you are simply of the curious sort, then *Keeping Foods Fresh* is a book for you.

The book contains over 150 recipes sent into and compiled at Terre Vivante. According to Chelsea Green’s press release concerning *Keeping Foods Fresh*: “Terre Vivante, located in south-central France, is like the Real Goods Solar Living Center in Hopland, California, a place where people have tried to ‘get it right’ by demonstrating that food can be grown without toxic chemicals, disruptive machinery, and waste. This book...celebrates recipes for storing fruits and vegetables in a form as near as possible to fresh.”

Some of us may be familiar with techniques such as preserving in the ground, in root cellars, and by drying. These methods are covered in this book using specific directions and recipes for different foods. Here I found recipes I had not encountered before such as Gruyere Cheese in ashes, blueberries in honey where no cooking was involved, and sundried fermented tomato coulis. What really got me excited, however, were the chapters on preserving using one of the following methods — lactic fermentation, alcohol, salt, vinegar, oil and sugar. I am going to be very busy this summer, trying all the recipes I found in these sections. One of my favorites using lactic fermentation was sauerkraut in glass jars. Here the cabbage, salt, water and juniper berries or bay leaves are put in a quart jar and capped. That is it, wait a month and enjoy. The relative ease of preparation was a definite selling point here as it was with most of the other recipes. Other lacto-favorites include lacto-fermented tomato balls, bottled Swiss chard ribs, and one for vegetable condiment.

When preserving with oil I want to try the recipe for cherry tomatoes and the one called vegetable medley. There is also pistou, which is pesto without the nuts and cheese. If you find yourself with a few extra tomatillos you might try the method of preserving them in vinegar. I am. I liked the recipe ‘mixed vegetable stock’ using salt as the preservative. I also want to try preserving tomatoes using salt. When you start using sugar as a preservative, no matter how you do it, the finished product is just plain sweet, as it should be. It is noted that “sugar-free” jams and jellies are really “no sugar added” products. They are concentrating the sugars naturally found in the fruit instead of adding more. That said, I bet most readers will find one or more recipes in this section that they will want to try. I know I did, and my choice is Rhubarb Syrup. A section on sweet and sour preserves, as well as one on making wine and preserving fruits in wine, round out this book.

This book of recipes aims to preserve foods in their most nutritious state so there is minimal, if any, processing involved. These are not the type of products you are going to sell at farmers markets with the blessing of your local health agent.
Teachers, homeschoolers, parents, have I got a book for you! One Good Apple is a wonderful addition to your library or home collection. This forty-nine page hardcover, full of colorful photos, geared towards older elementary school-aged and preteen children begins with what else? - apple picking at the grocery store. But the author then asks the reader if they ever wondered why that perfect looking apple looks the way it does. Anyone who has grown apples in their own backyard knows that it is not difficult at all to grow one without lots of spraying, spraying and more spraying. She then relates the relationship between farmers and pesticides and the past mistakes made throughout the history of farming. Unfortunately, the history of pesticides shows that when one chemical compound is discovered to not be safe for humans eating the apple, and is replaced by another, it usually has already done some heavy damage to both humans and animals alike. The legacy of the man-made chemical, DDT, still remains with us to this day.

Ms. Paladino explains in simple and forthright terms how our lifestyle choices and the food we choose to eat affect ourselves and others as well. Not only are we affected, but the people who process our food as well. Farm workers and people who live near sprayed fields have a higher rate of cancer and babies born to parents of higher chances of developing birth defects. However, apples are just the beginning; grapes and strawberries are others that are heavily sprayed when raised conventionally.

Thank goodness not all farmers use pesticides. Organic farmers do not. Ms. Paladino then relates why we all should eat organic foods. Not just for the obvious reason of avoiding pesticide exposure and its ill effects but also because of the many benefits gained by eating organic. Food is more fresh and varieties are numerous. Community Supported Agriculture or CSAs is one way to obtain organic produce. CSAs not only benefit the farmer and consumer but the environment. Fuel is saved that would otherwise be used for shipping produce, and in turn pollution lessened. Plastic packaging that might not be able to be recycled is avoided.

Many times, seeds are saved that would otherwise slip into obscurity if left in the hands of big business farming. Some insects have become more resistant to pesticides during the last sixty years. Yet many plants have their own natural resistance to pests.

Organic farmers don't just avoid spraying their crops to be organic, they rotate their crops to prevent disease and insects from settling into the soil. Cover cropping also gives the soil a chance to rejuvenate itself. Organic farmers also encourage many predatory insects to stay in their fields by attracting them with what every bug wants, food and shelter. These insects then lay eggs that hatch and become hunters or parasites of the pests.

All webs are not created equal. Some are good companion plants for the planted crop. Others provide shade, aerate the soil and prevent erosion. Organic farmers compost their plant debris by mimicking what happens in nature. The compost when returned to the field recycles nutrients back into the soil. The author wraps the book up on a positive note, the bad can be replaced with good. Every person on this earth can make a difference. A simple compost pile in the back yard is a great start. Ms. Paladino gives some ways you can make a difference on her last page. Sit down with your child today and read this book together. It will open up a world of discussion and good things to come.

Farmers and their Diversified Horticultural Marketing Strategies

A VHS video produced by Vern Grubinger, University of VT Extension 49 minutes; for copies contact UVM, 590 Main ST., Burlington, VT 05405, (802) 656-5459, email: SUSAGCTR@zoo.uvm.edu

Reviewed by Julie Rawson

It is no surprise to me that Vern has done yet one more excellent piece of work in producing “Farmers and their Diversified Horticultural Marketing Strategies.” Vern Grubinger’s commitment to getting the word around to farmers about how to best farm organically is unsurpassed. His method, often foreign to extension personnel, of teaching others by bringing the work of the best growers to the attention of those who need assistance through videos, books, workshops and seminars is remarkably effective. We are lucky to have him in the North-east!

This video interviews 8 farmers from around the Northeast, each farm with a specialty to share with us. Considered the best of the full time growers in farming circles, those interviewed are as follows:

* Karen and Jack Mannix, (VT) whose specialty is farmstand sales
* Paul and Sandy Arnold, (NY) who sell at farmer’s markets
* Michael Doctor and Linda Hildebrand, (MA) CSA growers
* Jan Goranson and Rob Johanson, (ME) with a mixed strategy of farmstand, farmers’ market and wholesale
* Rich Rommer, (VT) who concentrates on Internet sales of sprouts
* Norman Greg, (NY) who runs a PYO operation
* Dave and Chris Colson, (ME) sell to restaurants and natural food stores

Paul Harlow, (VT) markets wholesale through Deep Root Coop, and Dennis Sauer the Coop manager.

Each presentation is succinct, gets to the point of each farm’s best practices, and shows very attractive pictures of their operations. Great quotes like “People eat with their eyes,” from Jack Mannix and Norman Greg’s musings as a dairy farmer that “people are just a new kind of animal on the farm,” make these farmers very approachable and human.
The advice is practical: be a better marketer than your customer, provide an experience, have a personal relationship with your client, know your costs of production, have the highest quality, and most importantly (I think), from Jack Mannix, “Have fun.”

In 49 minutes one can learn an awful lot about how to market from these 8 points of view. I recommend the video highly.

Dear Jack,

Many thanks for your review of my cider book in the Winter 1999-2000 issue of The Natural Farmer. It was especially nice to see it next to Gene Logsdon’s Good Squirrels, which I edited for Chelsea Green earlier this year.

One small thing bothered me in the review, which is why I’m writing. You mentioned that “secondary fermentation” could be done in the bottle. I understand what you mean, but actually this isn’t the secondary fermentation, but what might more accurately be called “bottle fermentation” or “natural carbonation.” Secondary fermentation, on the other hand, is the stage after the first vigorous 6 to 8 weeks of primary fermentation, as the cider begins to clear and some of the malic acid turns into lactic acid, giving a smoother, “nuttier,” and more mellow taste.

The only reason I mention this is because I can picture readers of The Natural Farmer bottling their cider before it has fully fermented, and then hearing the sound of popping corks or, worse, shattering glass in their cellars.

Nobody who follows the directions in my book, or in the other two cider books on the market, should make this mistake.

Ben Watson, Franconestown, NH

Jack replies:

Thanks, Ben. So that explains the shadiness of glass all over my root cellar!

— Jack

Dear Jack,

We’re starting to pack up here, and we’ve begun to discuss what you guys discuss: what kinds of chickens to order for the spring, what kinds of seeds for the Massachusetts soils, will the mice girdle the apple trees or not... There are less than 2 months of our time left in Lae and so some tidying up in one thing. One thing I came across in one cardboard box was page 2 of the Spring, 1999 edition of TNF. I used it in a course on urban development for architectural students at the University of Technology at PNG. Most students here have a very limited concept of urbanism as they’re mostly from villages so this was a pleasant piece for them. The concept of the garden within the city was one that they most all welcomed, and one student in his final paper for the course even proposed a scheme that would introduce private and neighborhood gardens in the deeply troubled city of Port Moresby. Who says NOFA and TNF have only a limited influence?

Dick Burnham, Papua, New Guinea

Drew offers the insights of both a practitioner and a scholar. He guides the reader through choosing a breed, selecting, teaming, and training calves, making a yoke and bows, and working with oxen in various contexts. While his older book emphasized competitions, this book also includes sections on practical work in agriculture and forestry. It is the most comprehensive book to working oxen I have seen. This book is pretty well written, I think the photos and drawings are its strongest aspect. They are very effectively used to illustrate important points. Recent photos of teamsters working oxen in current situations are supplemented with some historical ones that show some interesting work not often seen today.

The section on housing is proving to be very useful as I lay out the stall in the new ox barn I am building. I am getting good ideas for the feeders and restraining the oxen while in their stalls. Drew also offers advice on feeding and health care that is hard to find elsewhere. The only specific flaw worth mentioning is the incorrect description of adjusting the working width of a walking plow. I’ll bet Drew put that in backwards just to see if we were paying attention! There are numerous production errors that make one wish the production was as good as the content.

Drew gives hundreds of references in his bibliography, and also points the reader to other useful resources like videos and organizations. Living farm histories deserved mention in the resource section but are absent. That omission may have been a matter of judgment, as not all living history farms have oxen programs strong enough to be considered resources, but within the NOFA region the ones I have been to had a lot to offer. Hancock Shaker Village in MA has a great program, and I saw very good demonstrations by 4-Hers at the New Hampshire Farm Museum. When I was getting started, the folks at Old Sturbridge Village were one of my most valuable resources.

I am very happy to have this book as a resource for my interns. To have so much oxen information in one place will be a great benefit to them. I recommend this book highly to anyone interested in working oxen.
Calendar

Saturday, March 4: NOFA/CT End of Winter conference, Hartford, CT for more info: 203-484-2445 or http://ct.nofa.org

Friday, March 10: Massachusetts Farmers’ Direct Marketing Conference & Trade Show, Boxborough, MA for more info: (413) 529-9100

Wednesday, March 15: Hands-on Landscaping Sip Analysis, Tower Hill Botanic Garden, Boylston, MA for more info: 978-897-7490

Wednesday, March 15: 7 - 10 pm, Teach-in on globalization of agriculture, Vandana Shiva, 145 Grada Drift, Maude Barlow, Berit Juhan, Mark Ritchie, Boston, MA for info: 617-423-2144 ext. 24


Saturday, March 18: NOFA/RH annual winter conference, Providence, RI for more info: (401) 941-8848

Saturday, March 19: 9 am - 5 pm, Water Work, Sam McCarty*, The Pheiffer Center, Chestnut Ridge, NY for more info: 914-352-5020 ext. 20, Email info@pfeiffercenter.org

Saturday, March 18: Backyard Organics Gardening Mini-Courses, Boston, Danvers, Fall River, Northampton, Worcester, MA for more info: (617) 287-7287 or (702) 642-5161

Saturday, March 18: Getting Started in Vegetable Production with Vern Grubinger, Belchertown, MA for more info: Eric Toensmeier (413) 586-9050 erict@smallfarm.org

Tuesday, March 21: Perennial Plant Conference, Jol, of Conn., STS, CT for more info: 500-486-5436

Saturday, March 25: Backyard Organics Gardening Mini-Courses, Boston, Danvers, Fall River, Northampton, Worcester, MA for more info: (617) 287-7287 or (702) 642-5161

Sunday, March 26: 10 am - 4 pm, Draft Horse Sap Gathering Contest, Stonewall Farm, Keene, NH for more info: (603) 357-7278

Thursday, March 28 - Thursday, March 30: Conference on Integrated Pest Management, Nutrients and Pathogens from Animal Agriculture, Camp Hill, PA for more info: (607) 255-7654

Saturday, April 1: 9 am - noon, Greenhouse Workshop with Gunther Hauk, The Pfeiffer Center, Chestnut Ridge, NY for more info: 914-352-5020 ext. 20, Email info@pfeiffercenter.org

Saturday, April 1: Organic Apple Intensive with Michael Phillips, Ashfield, MA for more info: Eric Toensmeier (413) 586-9050 erict@smallfarm.org

Friday, April 8 - Sunday, April 10: Organic Beekeeping with Gunther Hauk and Ron Breland, The Pfeiffer Center, Chestnut Ridge, NY for more info: 914-352-5020 ext. 20, Email info@pfeiffercenter.org

Friday, April 8 - Sunday, April 10: American Livestock Breeds Conservancy’s Annual Conference featuring rare equine breeds, Williamsburg, VA for more info: 919-342-5704

Saturday, May 13: On-Farm Composting with Arnie Voehringer, Belchertown, MA for more info: Eric Toensmeier (413) 586-9050 erict@smallfarm.org

Friday, June 23 - Sunday, June 25: 1st International Herbal Symposium, Norton, MA for more info: (802) 479-9825
Pam Flory in her flower garden at North Slope Farm, in New Jersey. Here she tries out new varieties and decides which to grow for the hundreds of bouquets she sells each week.

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

Flowers for Market