NOFA Summer Conference: An Intergenerational Success

Each year at the NOFA Summer Conference some exciting observation can be made. This year was by far the most intergenerational event we have ever had. There were droves of little kids, and teens and droves of folks well into their 80’s, and lots of young adults, and of course the plethora of those of us in mid to late middle life. As this movement gets older (we had our 30th birthday this year), it is warming to see that there is a whole new generation of organic farmers and gardeners on the scene.

NOFA has always looked pretty white, too, but there was a strong contingent of people of color. That was thanks in part to a participant who sent us $1,800 for scholarships for people of color, and possibly in part due to our keynoter, Cathrine Sneed. Proceeded by the great NOFA Skit and Organic Tabernacle Choir, Cathrine brought us a stirring message about the good work that is being done in San Francisco and other parts of the country to bring gardening and farming and usable horticultural skills to our nation’s prisoners. These prison farming projects — which often connect with low income people to provide fresh organic food in low income neighborhoods — bring hope to prisoners and to community folks. Cathrine’s work in San Francisco sparked the NOFA/Mass “Garden of Miracles” Project in Springfield, Mass. Videotapes of the keynote program are available for $15 to the “NOFA Video Project” at this address.

Kim Stoner was the recipient of the coveted NOFA Person of the Year Award. Kim is a NOFA-CT member who has worked tirelessly on the Board of Directors and on the Organic Landcare Committee. Kim is a very humble person who works in the background with quiet and kind diligence. Congratulations.

It looked as if we would have a repeat of last year’s deluge of rain, but luckily the worst of it passed south of us and we just got some light rain on Friday night and again on Sunday morning.

The word is that the Food Court which replaced NOFA Nibbles needs filling out. But with some experience under our belts we hope to have more good eating alternatives next year. There were rave reviews about the Hampshire food this year, however. We so appreciate that the Food Service folks at Hampshire go out of their way so thoroughly to bring us as much organic and local food as they can while we are there for the weekend.

For me the best time of the conference is the fair when I sit and braid garlic, watch Dale’s great horse show and all the games and get to talk to so many folks who stop by. As has (continued on page 28)
Why Organic Landscaping?

In a journal entitled The Natural Farmer, it may be surprising to find an issue devoted to Organic Landscaping. Don’t organic farmers in the northeast have enough work to do already, you may ask? Isn’t the interest in organic landscaping from urban and suburban folks, rather than the rural community to whom we normally speak? Isn’t the purpose of landscaping to make land pretty rather than productive, and how does that mesh with NOFA goals?

These are all fair questions, and yet the sobering fact remains that in much of the northeast more synthetic chemical herbicides are used in landscaping and horticulture than in all of agriculture. For those of us concerned about things like chemical sensivity, ground water contamination, and thriving soil life, a pesticide has the same damaging effects whether sprayed on arugula or azaleas.

For a long time organic management was ridiculed as unrealistic. Finally, the costs to health and environment of conventional techniques are being fairly evaluated. Thoughtful people are realizing that organic management is the only realistic long-term solution. It is not surprising that these people, who already eat organic food, want their lawns and landscapes managed with the same sensibility.

The Natural Farmer Needs You!

The Natural Farmer is the newspaper of the Northeast Organic Farming Association (NOFA). All members receive a subscription as part of their dues, and others may subscribe for $10 (in the US or $14 outside the US). It is published four times a year at 411 Sheldon Rd., Barre, MA 01005. The editors are Jack Kittredge and Julie Rawson, but most of the material is either written by members or summarized by us from information people send us.

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

- Winter 2001-02 - Farming and Families
- Spring 2002 - AgroForestry
- Summer 2002 - On-Farm Research

Moving or missed an issue? The Natural Farmer will not be forwarded by the post office, so you need to make sure your address is up-to-date if you move. You get your subscription to this paper in one of two ways. Direct subscribers who send us $10 are put on our data base here. These folks should send address changes to us.

Most of you, however, get this paper as a NOFA member or summarized by us from information people send us. Julie Rawson, but most of the material is either written by members or summarized by us from information people send us.

Advertise in The Natural Farmer

Advertsments 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 NOFA members and 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 an ad - just send $3 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, 37 Cherry St, Easthampton, MA 01027 and we'll print it in the next issue. Include a price (if selling) and an address or phone number so readers can contact you directly.

Deadlines: We 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 37 Cherry St., Easthampton, MA 01027. If you have questions, or want to reserve space, contact Justine at (413) 527-1920 or JJSL45@aol.com.

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

The Natural Farmer is published four times a year at 411 Sheldon Rd., Barre, MA 01005. The editors are Jack Kittredge and Julie Rawson.

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The Capon Club - If you attended Dick Grant's capon workshop and are interested in being part of a caponizing field day next spring, please let me know and I will add you to the email response list. If you don't have email, let me know and I'll contact you via postcard. Heck, even if you didn't go to the workshop and would like to enhance those Kosher Kings or Jersey Giants, let me know. Richard Murphy, 263 Long Hill Road, West Brookfield, MA 01585. Phone: 508-867-5735. email: murphy@star.net

Agricultural Internship with livestock focus at a 232 acre education center and wildlife sanctuary 30 miles west of Boston. Daily care of pigs, cows, sheep, chickens, draft horses, ponies, goats plus production of hay and organic vegetables. Weekly stipend of $175 minus $25 for rent. Begins October, 2001 for a year. Contact Molly Hawkins, Dr.Ramlin Farm, South Grant Road, Lincoln, MA 01773 (781) 259-9506 ext. 7707, mhawmins@massaubdon.org

Wellspring Land Co-operative seeking new member. Small-scale farming opportunity. Wellspring farm is located on 187 acres in Marshfield, VT. The three households living on the farm own their homes and share ownership of the land itself. One of the members is leaving and seeks to sell their home and interest in WLC. Price of $99,500 includes two-bedroom home (clustered with two other homes and farm buildings) and third interest in land co-op (40 acres open, 147 acres wooded). For details contact: Roberta and Duffy Gardner, 182 Laffria Place, Marshfield, MA 02058, (802) 426-3482

Certified Organic Hay, Straw, Grains For Sale – Massachusetts produces 1st and 2nd cuttings hay. First cut nice grass/clover mix $3.50 out of the barn. Second cutting gorgeous red clover hay $4.00 out of the barn (excellent creep feed for calves/lambs). Also selling our own barley, wheat, and rye straw $4.00/bale. We will have winter rye, hard red winter wheat, hulless barley, dent corn, and tofu grade soybeans for sale this winter. Please call White Oak Farm/Matt Ralcaei at (413) 523-6922 before 8:00am or after 8:30pm for specifics and to arrange for pick-up. Limited quantities. Delivery available.

Farm Manager needed for educational farm. Full-time management position with competitive pay and good benefits. Prior experience in the following areas: supervising weeding crews, teamstoring, and maple syruping. Prior experience in the following plus: budgeting, education, and working with the public. Responsibilities include: overseeing all farm operations including dairy, fields, maple sugaring, equipment maintenance, small animals, and horse-drawn farm operations. Start date: October 22 (or sooner). To apply, send cover letter and resume with references by August 31 to Kully Mindemann (at address below). EOE: Stonewall Farm, 242 Chesterfield Road, Keene, NH 03431, FAX: 603-357-6618, www.stonewallfarm.org, e-mail: stonewallfarm@monad.net

Assistant farm manager wanted for 2002 season. OI'Turtle Farm, 18 acre organically managed diversified vegetable farm looking for an energetic and capable individual to assist in the management of the farm and CSA. Field work and trator experience necessary. Living space, farm vegetables, workman’s comp and salary. Contact Eileen, OIT Turtle Farm, 385 East St., Easthampton, MA 01027 413-527-9122 oilturtle@javamen.com

NOFA/Mass certified organic garlic seed!
Mitchell - $5/bulb under 5 lb., $5.50/lb 5 lb - 24 lb, $4/bulb 25 lb or more. Postage - add $3.75 under 5 lbs, add $5 from 5 lb to 15 lb, 15 lb - add $6. Garlic heads - $7.50 each plus shipping as above (each head weights about 4 oz). NOFA/Mass certified Many Hands Organic Farm, 978-355-2853

Apprentice position available for 2002 season. OIT Turtle Farm looking for an apprentice to help us grow, harvest and sell our low-spray apples at Apple Annie in Brentwood, NH. Owners in their 60s are trying to plan to keep the 5 acre farm/orchard retail store (PYO, cider press and small bakery) going. At present we have 130 old standard trees, bearing well, about 75 semi-dwarfs less than 15 years old, and three large vegetable gardens. We are flexible about new directions, though. We’ll pay you for the first few years, when/whif you take over, costs and proceeds will be yours, and use of the land and barn rent-free. Anyone with interest or ideas, please call or write Charles & Joan Pratt, Apple Annie, 66 Rowell Rd., Brentwood, NH 03833 (603) 778-8981

Herb Pharm offers an HerbaCulture Work/Study Program on our certified organic farm in southern Oregon. Program runs mid-March through June. Work includes cultivation and harvest of medicinal herbs in exchange for classes involving many aspects of organic farming and herbalism. Must be prepared for hard work. No monetary fee. Communique included. For application write: Work/Study, Herb Pharm, PO Box 116, Williams, OR, 97544. For more info. Email workstudy@herb-pharm.com or phone (541)846-9121

NOFA Internship is looking for a website content manager for its website, www.nofaic.org. Responsibilities will include updating the website and developing new sections to NOFA chapter sites and developing new sections to include other Council publications. For additional information, please see http://www.nofaic.org/ opportunities/

The version released by the Bush/Whitman EPA is similar to that briefly released by the Clinton/ Browner EPA in January, which means there is a version released by the Bush/Whitman EPA is similar to that briefly released by the Clinton/Browner EPA in January, which means there is a version released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA is similar to that briefly released by the Clinton/Browner EPA.
If no toxicity is found at high doses, EPA assumes that the food is non-toxic. If a gene introduces toxic proteins into the food supply, despite known examples of exceptions for other proteins, and innumerable examples with conventional chemical pesticides. Despite au-thors’ concerns about the potential harmful effects, EPA has used this single assay to pronounce the protein “non-toxic” and grant exemptions for the requirement for a tolerance for the transgenic insecticidal protein GE crops. This means any amount of the transgenic protein is allowed in the crop (likely manufacturers cannot control transgenic protein levels). Curiously, EPA does not consider potential allergenicity in its dietary tolerance analysis, even though allergenic reactions from novel dietary pro-teins cannot be ruled out. If it did consider allergenicity, it would have to either identify a safe level (a tolerance), or deny the registration. The Science Advisory Panel just told EPA, there is no way to identify a safe level of a potential dietary al-lergen. Thus transgenic proteins are declared “non-toxic” and GE crops can be registered.

The 1996 Food Quality Protection Act specifically requires EPA to set tolerances to pesticides in/on crops with children’s sensitivities in mind. The method required is to reduce the tolerance set for adults by a factor of 10 unless there are data to the contrary. Despite this legal requirement, despite the fact that children are known to be sensitive to allergenicity, and despite the fact that there is no way to identify a safe level of potential allergen, EPA allows any amount of transgenic protein in GE crops when it gives a registration. Apparently EPA has had to find a way around the FQPA requirements in order to grant these registrations.

The real kicker is that this Rule is not enforceable! With conventional pesticides, farmers - the end us-ers - legally enforceable instructions in the la-bel on the can of pesticide. If they fail to follow the instructions, EPA and, through delegation, state agencies, can and do take legal action against them. This makes sure that the pesticides are used as intended, and a whole framework of applicator in-struction, inspectors and state and federal legal teams keep this system working. All of that is thrown out with “plant introduced protectants.” Here, farmers get no legally enforceable label, the manufacturer is supposed to make sure they get an “instruction sheet.” It is the manufacturer - in New Jersey or Missouri or Michigan which holds the en-forceable label. If a farmer in Iowa fails to follow instructions, no state or local EPA office can take action against them (not surprisingly, neither EPA nor Monsanto have any way to even identify GE crops). What happens is the manufacturer is sup-posed to enforce “grower agreements”. So, Monsanto or DuPont or Dow is supposed to go out into the Iowa and Illinois and Florida and Ohio fields and check to make sure farmers are following the instructions - planting their Bt refuge, for example. As StarLink demonstrated so clearly, this is broken promise made in the face of a con-lict of interest for the registrant, to whom federal regulatory responsibilities have been transferred.

When there is a problem, EPA is supposed to en-force against the registrant. We shall see how well this system works when we see what type of penalties are levied against Aventis for their fail-ure to hand out and enforce “grower agreements” designed to keep StarLink out of the human food supply.

There is more: comments are actually solicited on exemptions to the Rule. Take a look.

I hope all this whets your appetite to read the Rule and make your thoughts known. Keep in mind there will be a Docket Number which you must in-clude in your correspondence, or EPA will disregard your comments.

The recent ban against the importation of GE food by the Sri Lankan government has been described as one of the toughest restrictions against GE food in the world. What happened to the right to safe food?

The UNDP report asserts that undernourished poor people cannot afford to indulge in the unrealistic notion of health concerns - people need food no matter what the cost!

Dr. Arpad Pusztai, one of the world’s foremost expert’s on nutritional studies argues the safety testing of GE foods is inadequate to assess potential harm, that GE foods can carry unpredictable toxins and that they may increase the risk of allergic reactions.

A worst case scenario of what can possibly go wrong with GE food has already been indicated in the US and Europe in 1999 when a batch of the amino-acid food supplement L-tryptophan manufac-tured using GE microbes entered the market. It killed 37 people and permanently crippled some 1,500 others with a new nervous system disorder, eosinophilia myalgia syndrome (EMS).

Moreover, the UNDP report perpetuates the myth that technological fixes such as genetic engineering will alleviate poverty and feed the world. Unfortunately, the solution to world hunger is not so simple.

In many developing countries there is in fact an over supply of food, which is not readily accessible to the poor - they simply can’t afford it. In a country like India, that fully embraced the ‘miracle’ of Green Revolution farming, some 320 million people go hungry while 60 million tonnes of grain lie idle in stockpiles.

The problem of poverty and hunger is not techno-logical in nature, but is rooted in basic socio-economic and political realities, including inad-equate food distribution, the lack of resources to grow food, the lack of farmers rights and land rights, and political will.

In India a study by the New Delhi based Research Foundation for Science, Technology and Ecology (RFSTE) estimates that farmers’ expenses would increase by as much as nine times if they switched from traditional seeds to GE cotton seeds. Bt cotton is currently under field trial in India. An application by Mahyco/ Monsanto for the commercialisation of it’s Bt cotton was recently rejected by the Indian government based on insufficient data as to the agronomic advantage of the commercialisation of the Bt cotton and insufficient environmental safety and socio-economic studies.

In Indonesia Monagro/ Monsanto’s Bt cotton field trials failed to out-perform the indigenous variety in all but one of nine districts in South Sulawesi. The Bt cotton also succumbed to drought and pest infestations.

Indonesian farmers have protested against the Bt cotton and the NGO Coalition for Biosafety and Food Safety representing 72 NGOs has taken legal action against a government decree allowing the limited release of the Bt cotton seed in South Sulawesi.

Another GE product enthusiasts promoted in the UNDP report, as helping to alleviate malnutri-tion, is ‘golden rice.’ The development of this is far off in the future with many doubts as to if it really offers any significant solutions to nutritional prob-lems. Many believe this is simply another PR battle a morally bankrupt genetic engineering industry.

The reality is that the genetic engineering industry has funnelled the vast majority of its investment into the development and commercialisation of a limited range of products, which have very little relevance to the needs of the world’s poor and hungry.

“Instead of looking to as yet unproven as well as mass destructive GE plants to solve our food problems, the UNDP should be looking into the many proven examples of ecological agriculture in developing countries based on pro-people technologies that work for resource poor communities and not against them,” maintains Rengar.

It is all too evident that genetic engineering and GE foods and crops serve the short-term capital interests of a multi-billion dollar industry at the expense of our health and the environment. Corporations basically have only a financial motive in developing genetic engineering - to create a new round of capital accumulation. It is deeply disturbing that the UNDP has become a conduit for this motive. The needs and wants of the poor and hungry have been ignored yet again.
**USDA Provides $1 Million for Certification Fees**

The US Department of Agriculture has announced that $1 million will be available to share the costs of organic certification in 15 states, including all 7 NOFA states plus Maine. Producers are eligible for up to $10,000 to farmers to conduct experiments, try new approaches, and test emerging ideas about agricultural sustainability. Application deadline is December 14. More information is available at https://www.usda.gov/nopp/ or 802-656-0471. The farms are also listed at http://www.nofs.org.

**OGBA Goes Bankrupt.** One of the major midwestern organic certification organizations, the Organic Growers and Buyers Association, revealed in late July that it was shutting down for lack of funds. The organization was based in Brooklyn Park, MN and certified over 500 clients. In many cases these are farms awaiting inspection which now have no organic certification despite a crop ready for market. OGBA chair Ray Yokiel said the agency is trying to get clients' folders to other certifiers, primarily FVO and OCIA, to ease their strain. The clients will probably have to pay a second time for certification, however. Source: IOIA Inspectors' Report, Summer, 2001

**Lloyd's of London Now an Organic Certifier.** As the article demonstrates, organic certification is attracting some new blood. Perhaps bananas are a more lucrative product than the corn and soy OGBA (see above) was inspecting! Source: private communication, June 13

**Maine Passes GM Seed Law.** The governor of Maine has signed into law a bill sponsored by the Maine Organic Farmers and Growers Association requiring manufacturers or seed dealers of genetically modified plants, plant parts, or seeds to provide written instructions to all growers on how to plant, grow, and harvest the crops to minimize potential cross-contamination of non-GM or wild plants. Copies of the instructions must be filed with the Commissioner of Agriculture at least 20 days in advance of sale, and manufacturers or dealers must maintain a list with names and addresses of all Maine growers of their GM stock. More information is available at: http://www.ofa.org/

**Canadian Court Allows Towns to Ban Pesticides.** The Supreme Court of Canada has ruled that the Montreal suburb of Hudson acted legally in banning lawn pesticides in 1991. Landscapers had brought the case, arguing that the town could not block use of the chemicals, even though they were approved at the federal and provincial level. The court ruling noted that municipalities are closest to the everyday lives of citizens and thus most responsive to their needs, and that a ban in such tiny areas as a 1-square-meter lawn can serve the public health purposes of the Hudson bylaw are primary. Some 36 other Canadian municipalities have enacted similar bans since 1991. Source: Our Toxic Times, August, 2001

**SARE Announces Sustainability Grants for Farmers.** The Northeast Sustainable Agriculture Research and Education Program is offering grants up to $10,000 to farmers to conduct experiments, try new approaches, and test emerging ideas about agricultural sustainability. Application deadline is December 14. More information is available at https://www.noproblem.org/certification/or/ or 802-656-0471 or email a request to nesanearth@uvm.edu. Source: SARE press release, June 21

**Connecticut NOFA Certifies Nearly 900 Acres.** Fifty-two farms and one processing facility in Connecticut have met the organic requirements for certification by that state’s NOFA. A directory of all these farms and the materials they sell is available if you send a self-addressed, stamped envelope to CT NOFA, Box 386, Northfield, CT 06472-0386. The farms are also listed at http://ct.nofs.org. Source: CT NOFA press release, August 5

**Golden Rice Developers Back Down.** “Golden” Rice is a new genetically modified variety which has been hailed in advertisements as helping to solve the world’s food problem. It is engineered to produce enhanced beta-carotene, the precursor for Vitamin A. Critics such as Indian scientist Vandana Shiva and Greenpeace have charged that a child would have to eat almost 10 pounds of cooked rice a day to satisfy his or her daily Vitamin A requirement, and a better way to get adequate nutrition would be to encourage Asians to eat (unpolished) brown rice since most nutrients are in the hull. Now Gordon Conway, president of the Rockefeller Foundation which funded the rice’s development, says: The public relations of the academy’s Orange Rice have gone too far. We do not consider Golden Rice the solution to the vitamin A deficiency problem.” Swiss scientist Dr. Ingo Potrykus, who actually developed the variety, says: “Greenpeace has identified a weak point in the strategy of using Golden Rice for reducing vitamin A deficiency. I share Greenpeace’s disgust about the heavy PR campaign of some multinational organizations from our country.” Source: Sacred Pathways, June/July, 2001

**7800 Certified Farmers in US.** A count of the nation’s certified farmers as of January 1, 2001, reported 7800, an increase of 18% from the 1999 total of 6600. The count was compiled from surveys of the 89 US organic certification agencies. Source: Organic Farming, Summer, 2001

**USDA Provides $1 Million for Certification Fees.** The US Department of Agriculture has announced that $1 million will be available to share the costs of organic certification in 15 states, including all 7 NOFA states plus Maine. Producers are eligible for up to $10,000 to farmers to conduct experiments, try new approaches, and test emerging ideas about agricultural sustainability. Application deadline is December 14. More information is available at https://www.usda.gov/nopp/ or 802-656-0471. The farms are also listed at http://www.nofs.org.

**Plant Defenses Studied.** Researchers from the Agricultural Research Service (ARS) published work in the March 29 issue of Nature which indicates that a chemical in the saliva of beet armyworm caterpillars prompts corn seedlings to emit an aroma enticing to parasitic wasps — a natural enemy of the caterpillars. Source: Science, USA, August 2001

**Berries Good for Cancer, Heart Disease.** ARS researchers also have found that plants containing resveratrol are both protected against fungal disease and have measurable cancer and heart disease fighting qualities. Such plants include blueberries, cranberries, and other wild berries of the huckleberry. The compound is most concentrated in the skin and seeds, as opposed to the pulp and juice. Source: Maine Organic Farmer and Gardener, June-August, 2001

**EPA Rules Against StarLink Appeal.** The US Environmental Protection Agency announced that it would continue to ban trace amounts of genetically engineered StarLink corn in human food. The agency found that an expert panel had failed to establish that StarLink was safe to eat and that the product should be allowed to overgrow the farmers’ fields. A favorable ruling from the EPA would have let the firm off this expensive hook. Source: Alternative Agriculture News, August, 2001

**Osage Orange Makes Top Fence Post.** Those looking for an alternative to treated wood for fence posts will be interested to know of results from long-term Oregon State University research. In order of preference by material: Osage Orange (100% lasting after 66 years without evidence of degradation), I and T-section steel posts painted with green enamel paint (100% lasting after 48 years), L-section steel posts with aluminum paint (88% remaining and average life of 48 years for those that failed), T-section steel posts with red oxide paint (64% remaining after 48 years, average life of 36 years for those that failed), and steel posts with green enamel paint (78% remaining, average life of 33 years for those that failed), western juniper posts (16% after 66 years, average life of 36 years for those that failed). Those that lasted the longest and were considered to be of the highest quality were: Osage Orange (88% remaining and average life of 11 years for those that failed). Fungi at the soil line are the chief cause of rot. Osage orange is common in the Great Plains and was used as hedges before the invention of barbed wire. Source: Growing For Market, June, 2001

**SARE Announces Farmer-Educator Initiative.** The Northeast Sustainable Agriculture Research and Education Program is seeking 5 farmers who are experts in their fields and have experience sharing their knowledge with other farmers and agricul- Source: SARE press release, June 14

**Monsanto Leaving GMO Potato Field.** NatureMark, the subsidiary which Monsanto set up to develop genetically engineered potatoes, is closing down. The NatureLeaf, a biopat variety released in 1995, never went to market and subsequent releases were even less popular. Monsanto spokesman Loren Wassell said: “The insect-protected products were not a niche product. We will instead be focusing on four key crops - corn, oil seed, cotton, wheat - that are grown on many millions of acres.” Source: Vegetable Growers News, May, 2001

**UK Organic Market Growing Rapidly.** Between April 1999 and April 2000, the United Kingdom market for organic food grew by 55 percent to over £900 million. The growth is expected to continue to 2005. Source: SARE press release, August 5

**CFSAs Phases Out Certification Program.** The Carolina Farm Stewardship Association, the primary organic certifier in the Carolinas since 1987, has voted to end certification and steer their members to the USDA National Organic Program. A letter to members of the board read: “The main concern was that the USDA wanted certifiers to be a regulatory agency of the USDA. We realized this would limit our ability to continue some of our educational and farmer support services and would prohibit us from having our certified growers on the board.” Source: Growing for Market, August, 2001

**USDA Provides $1 Million for Certification Fees.** The US Department of Agriculture has announced that $1 million will be available to share the costs of organic certification in 15 states, including all 7 NOFA states plus Maine. Producers are eligible for up to $10,000 to farmers to conduct experiments, try new approaches, and test emerging ideas about agricultural sustainability. Application deadline is December 14. More information is available at https://www.usda.gov/nopp/

Source: Alternative Agriculture News, June, 2001

Source: Science, USA, August 2001

Source: Maine Organic Farmer and Gardener, June-August, 2001

Source: Alternative Agriculture News, August, 2001

Source: Growing For Market, June, 2001

Source: Vegetable Growers News, May, 2001

Source: SARE press release, June 14

Source: Organic Farming, Summer, 2001

Source: Organic Farming, Summer, 2001

Source: Growing for Market, August, 2001

Source: USDA Press Release, August 4

Source: Growing for Market, August, 2001
Landscaping On Nature’s Terms: Natural Organic Design

by: Michael E. Nadeau,
Plantscapes, Inc.,
135 Flushing Avenue,
Fairfield, CT 06432
Plantscapes@snet.net

So, you want to craft a landscape that reflects your concern for the environment and your personal health, one that is easy to care for, and looks great, too. Is this too much to ask for? Not at all! All you need to do is learn to imitate Nature and you can have it all. When Nature is allowed to guide our thinking, we use the elegant process of natural selection and evolution that has been defining how, where, and why plants grow for eons. This will not only result in a landscape that is safe and pleasant for all its inhabitants, it will also require less human inputs, and will emulate more closely the simple beauty of natural design that is happening spontaneously all around us. We just need to “see” with much more than our eyes, the many interrelationships between different but dependant life forms and what conditions are necessary to foster these relationships. Once we learn to learn from the Master Designer, we can begin to recreate these relationships, no matter how crudely, on the pieces of the earth entrusted to our care. Maybe the best result of landscaping on Nature’s terms is it becomes infectious and begins to spread.

Landscaping with Nature ought to be fun - full of challenges and creative possibilities. It is also solemn, requiring a deep understanding and respect for the life forms we are manipulating. It is imperative to think of plants and soils as living systems, alive like you and I. A tree that is improperly sited cannot move itself to a more suitable location; it must endure or die. What we do or don’t do with a landscape has a positive or negative effect on everything from worms to weasels, to weeds. That’s why it is so important to take the time and expend the effort to learn how to collaborate with Nature, to draw inspiration from it, instead of fighting against it. This will insure a more gentle hand on the land we affect. In short, we must learn to learn from Nature.

Before we go any further, a discussion about exotic vs. native plants is in order. One of the basic tenets of the organic movement is “Do no harm”. There are exotic invasive plants used commonly in landscaping that are very harmful to the environment. They grow so prolifically that they crowd out native vegetation and wildlife that is dependant upon the native vegetation for their existence. There are many more exotic plants that are well behaved and relatively pest-free, making them an asset to the environment. However, recent studies have shown some “well-behaved” exotics become troublesome after a period of time and can be very difficult and expensive to eradicate. Native plants (plants indigenous to a bioregion present before European settlement [my definition]) have evolved over the millennia to thrive in their natural habitats. Many of them are as beautiful as the exotics and serve many purposes. Properly used, native plants provide a “sense of place” that unifies a landscape to its bioregion. Just think of a palm tree growing in a New England farm field and you’ll know what I mean. For me, the answer is to stay well informed about the exotic invasive plant issue, plant natives lavishly, and plant well-behaved, appropriate exotics judiciously.

Another issue high on the list of “Do no harm” is pollution. Remember as we design our landscapes that every land use decision we make either enhances or degrades the environment. This will help us prevent creating or allowing pollution to happen. A few simple changes from the way things are done conventionally can go a long way to avoiding pollution. Using porous paving on driveways, such as gravel or pavers with porous grout in the spaces between them, will reduce surface water runoff and allow natural percolation and filtration to take place. Planting a diversity of vegetation with a natural leaf litter works like a forest to slow down the water and allow it to seep in. Directing storm water from gutters and swales to low areas or holding ponds on our sites will allow the water to slowly seep into the ground to recharge the water table. This also creates unique opportunities to use many beautiful and useful plants that prefer a wet or periodically wet spot. Conventional “wisdom” advocates storm water charging off the roof, through the gutters, down the asphalt driveway, over the compacted lawn, into the gutter, into the sewer, and out in a torrent into the local stream, which cannot handle the torrent. All this runoff carries with it many pollutants and causes pollution in the form of erosion by sheer velocity. Thoughtful design can eliminate most or all of this form of non-point-source pollution. Of course, natural organic design uses no synthetic materials to create and maintain our landscapes and goes a long way to preventing pollution.

Since natural organic design is based on Nature’s terms, it is important to define what they are. In a nutshell, Nature’s terms are the genetic limitations of any life form, which determines its survival. Another literal description is the continual evolution of natural processes and functions of the earth, and I stress not necessarily for the sole benefit of
humankind. A more down-to-earth definition of Nature’s terms as they relate to landscaping is the environmental conditions that occur on a particular site that affects the ecology of that site. Some of these conditions are things like weather, diseases and insects, cultural problems (us), sun/shade, dry/wet, topography, drainage, and so on. All of these factors and more (many of them unknown or misunderstood) determine how, where and why a certain plant will thrive here, but languish there.

To me, a successful organic landscape has to be conceived and designed to take advantage of the benefits of organic land care and to avoid the limitations. This will insure that the landscape can be established and maintained organically. This is very simple stuff to do. An example of this might be to simply avoid using a particular wildflower that is plagued with powdery mildew by substituting it with a disease-resistant variety or choosing another plant altogether. Another benefit of heeding Nature’s wisdom when designing landscapes is that our inspirations can be more easily sustained for the long term, requiring a minimum of inputs, because plants are where they “want” to be. This basic principle of natural organic landscape design (sustainability) is infused throughout this article.

To truly operate within Nature’s terms takes a certain quality that is probably one of the most misunderstood, and for some, hard to come by. That quality is humility. I use the word here to describe the need to take all of our knowledge, experience, and ego and put it aside so we can “see” an untainted picture of what the land is “showing” us. We all know our poop, but sometimes leave little room for true inspiration. Every walk we have taken in the woods, every stroll through a meadow or a wetland, is a vast store of inspiration that we can use if we develop the quality of “seeing what wants to be there” – what would occur naturally if Nature alone were to design the landscape. Then we take our knowledge and experience and humbly apply it to what we’ve learned from the land, to fashion the landscape into a functional and beautiful environment that will meet the expectations of our clients and ourselves.

Speaking of clients (or ourselves if we are designing our own landscape), it is important to learn what their needs, priorities, and budget requirements are early on. I ask if they have a vision or a dream for the site or part(s) of it. If not, I try to engage them in creative contemplation. I try to transfer the excitement and passion I feel for what I do, not just regurgitate knowledge. It is important to explain the organic approach to landscaping, and why I do it this way. Be careful not to be perceived as a crusader who is out to save the world with the client’s money! They may run to the nearest non-organic landscaper and never leave. Point out the potential for lower maintenance costs by using organic design principles, and a safer environment without using synthetic materials to sustain their landscape, but never tell a client that such a landscape is maintenance-free, because it is not. At this point it is important to learn the client’s level of commitment to my organic approach, even if it will be more costly for them in the short term than conventional landscaping. It is very important that I feel “good” about working with them and the work they want done. An old timer once told me long ago I couldn’t lose my money, my reputation, or my

Lawn alternatives using native and sustainable plants like this one, increase biodiversity while often reducing maintenance requirements.
self-respect on a job I turn down. I haven’t always needed that advice, but I have never forgotten it.

Once I know what functions need to be designed into the landscape, I concentrate on mingling functionality with natural organic design by learning as much from the landscape as I can. By sitting quietly and observing natural rhythms taking place all around helps me connect with the “spirit of the place”. Notice how the site relates with its surroundings. Locate areas of beauty and interest and take advantage of them. Watch where the chipmunks come and go, feel where breezes come from, note sun and shade patterns, comprehend differences in vegetation and know why they differ, search for wet and dry areas and understand the movement of both surface and sub-surface water and its relationship to flora and fauna. Learn to evaluate the native landscape that abuts your site and dream up ways to mimic its repetitions and oddities. Are there woods or corridors adjacent to the site, and how can they be utilized to invite the animal neighbors back into the landscape? If little or no native landscape exists, try to locate nearby natural areas that match as closely as possible the ecology of your site and use them as inspiration. Plants and soils go hand-in-hand and should be given equal consideration. Learning about the characteristics of the soils on the site is an indispensable tool for selecting the right plant for the right place and is another basic principle of natural organic design.

Natural organic design is much more than just arranging plants informally on the landscape. It is an attempt to create plant communities that function symbiotically by imitating the natural groupings of plants and soils that occur natively in the wild. These communities are self-sustaining because the growth characteristics of each species is complementary to the other. Learn to work with the attributes and limitations of the site, as they exist instead of altering them. With this information it is possible to create a landscape that fulfills the client’s needs for functionality and aesthetics, while respecting the integrity of the natural ecology of the land. It is also a great way to re-invite the wild creatures back into the landscape, because a diversity of plant species create excellent habitat. My early training in landscape design dictated that a certain amount of space “should” be allowed between plants so they could grow into “specimens”. It was also stressed that the plants should be uniform in appearance, lest you compromise the design! And always, always, plant monocultures (repeatedly use the same plant) to get more bang for your design buck. Needless to say, I have been busy un-learning all that nonsense because when I walk into a woods or through a meadow, I see plants of mixed species growing in community, some growing very close together, others farther apart. I also see plants of uneven age growing together. And heaven forbid, plants that are misshapen – even dead ones! Are these mistakes? Hardly. It just requires a different mindset to understand this, very different. Instead of thinking of plants as individuals, think of groups of them as a collective and self-supporting organism. Instead of judging each individual tree as a “specimen”, imagine the collective organism as the specimen. In other words, the trees that make up a forest are not particularly handsome on their own, but the forest when viewed as a whole, is. So don’t just plant trees, plant ecosystems!

We can observe and imitate nature literally if we are designing an area that will not be used by humans. But most of my clients want to actually “use” the designed space. (The nerve!) So, how do we select the “right plants for the right place” and integrate all the functions and aesthetic qualities our clients require? We can do it by blending art with ecology. One way of doing this is using groupings of compatible plants that are not only beautiful and functional, but serve an ecological purpose, too. For instance, a privacy screen can be composed of flowering, berrying and evergreen plants that attract, shelter and feed wildlife. This same screen planting can be strategically placed to connect with an adjacent open space, creating a safe corridor for wildlife to travel in. In areas where less that a formal lawn is needed, the beauty and ease of a “low-mow” lawn or a grass and wildflower meadow is an excellent ecological alternative. Pathways that weave through properly chosen and planted vegetation, that reveal the landscape as you turn the corner, elicit excitement and surprise and can show off special design elements to best advantage.

This article just scratches the surface of natural organic design. I urge you to read up, take classes, question the status quo, take chances, get out and observe. But most of all spread the word! As I said in the opening paragraph, maybe the best result of landscaping on Nature’s terms it is becomes infectious and begins to spread.
Eco-Landscaping - Using Native Plants Around the Home

by Christopher Miller
Regional Plant Materials Specialist, USDA-NRCS

The concept of incorporating the design elements of the natural environment into the home landscape and a more “hands-off” approach to landscaping has been gaining momentum in recent years. Creating a sustainable landscape is somewhat daunting at first, because it seems to go against the grain of our instincts to rule and control nature. While many of these techniques are promoted as low maintenance, they may require some short-term maintenance at the beginning. For example, establishing a grass/wildflower meadow may initially require a higher level of cultural management than establishing a lawn but will provide a low maintenance, aesthetic look for a long period of time.

Most of the ecological landscaping principles are based on:

- knowing your soil conditions (pH, texture, drainage)
- carefully selecting adaptable, indigenous native plants to your geographic region
- identifying microclimate site conditions on your property
- minimizing turf grass (lawn) area
- conserving water (mulching, proper timing)
- reducing or eliminating commercial fertilizers and pesticides.

Many different levels of complexity can be undertaken from simply reducing lawn maintenance to utilizing integrated pest management (IPM), which requires knowledge of threshold levels of pest damage, alternative treatments, insect ID, etc. The most realistic approach is to start small and integrate changes in phases stopping to evaluate the past and contemplate future challenges along the way. While the references I’ve listed at the end of the article focus on many of these ecological concepts in detail, I would like to focus on the use of native plants in the landscape.

Why Landscape with Native Plants?

1. Reduce fertilizer and chemicals – native plants require little fertilizer once established and are resistant to most pests and diseases
2. Reduce water use – native plants have evolved to the long-term water balance of the geographic area
3. Support the ecosystem community – native plants serve as food, shelter, and reproduction hosts for a wide variety of insects, birds, and mammals.
4. Reduce the proliferation of invasive plants - by planting only native species, the localized seed source of invasive species is reduced.

One of the first steps you might consider in creating an eco-landscape is to eliminate turfgrass in those difficult soil conditions around your property. Maybe it’s a particularly wet area which could be replaced with herbaceous wetland plants and/or floodplain shrubs. Conversely, if it is a particularly dry, sterile location you may consider planting native grasses and/or wildflowers which do not require much water, fertilization and only annual mowing once established, in the late winter/early spring. Another option may be to set aside natural areas and allow nature to select what volunteers in the site. An annual mowing or periodic weed pulling may be necessary to keep out invasive plants. On steep slopes, consider planting groundcovers instead of grass.

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Tall native grasses add fall and winter interest to the landscape

**Herbaceous Plants**

Asclepias incarnata - Swamp milkweed
Carex spp. - Sedges
Chasmanthium latifolium/laxa – wood-oats/slender spikegrass
Cimia arundinacea - Wood reedgrass
Dryopteris noveboracensis – New York fern
Elymus virginicus – Virginia wildrye
Lobelia cardinalis - cardinal flower
Onoclea sensibilis – sensitive fern
Osmunda cinnamomea – cinnamon fern

**Shrubs**

Amelanchier spp. - shadbush, juneberry, service-berry
Aronia arbutifolia - red chokecherry
Aronia melanocarpa – black chokeberry
Cephalanthus occidentalis – buttonbush
Cornus sericea - redstem dogwood
Cornus amomum - silky dogwood
Cornus racemosa grazzy dogwood
Rosa palustris – swamp rose
Salix exigua - sandbar willow
Salix discolour - pussy willow
Sambucus canadensis - elderberry
Spiraea tomentosa – steeplebush
Spiraea latifolia – meadowsweet

**Wet sites** - These areas could be at downspout outlets, drip from air conditioning condensation, or concentrated runoff from roads, driveways, or natural depressions or floodplain areas.

1a. Moist-Wet, Part Shade to Shade

**Tall**

Clethra alnifolia - sweet pepperbush
Cornus sericea/amomum – redstem/silky dogwood
Hamamelis virginiana - witchhazel
Ilex verticillata - winterberry holly
Itea virginica – Virginia sweetspire
Kalina angustifolia – sheep laurel
Leucothoe racemosa – swamp fetterbush
Lindera benzoin - spicebush
Physocarpus opulifolius - ninebark
Rhododendron viscosum - swamp azalea
Vaccinium corymbosum – highbush blueberry
Viburnum dentatum - southern arrowwood
Viburnum lantana - nannyberry
Viburnum plicatum - blackhaw viburnum

**Intermediate**

Dryopteris erythrosora - prostrate wood fern
Juncus effusus - soft rush
Myrica pensylvanica - water holly
Osmunda cinnamomea - cinnamon fern
Veronica spicata - speedwell

**Herbaceous Plants**

Asclepias incarnata - Swamp milkweed
Aster novae-angliae - New England aster
Acornus calamus/americanus – sweet flag
Calamagrostis canadensis - bluejoint reedgrass
Carex spp. - Sedges
Eupatorium purpureum - Joe-Pye weed
Glyceria spp. - Mサイズgrass
Hibiscus moscheutos - marsh hibiscus
Iris versicolor – blueflag iris
Juncus effusus - soft rush
Scripophyllum spp. - Bulrushes
Spartogonum spp. - Burreed
Veronica noveboracensis - New York ironweed

**Dry sites** - These areas could be old access roads no longer in use, borrow areas, or open, sandy or clayey areas. Native grasses are highly adapted to dry, sunny sites. Although they establish slower than turfgrass species, they require much less long-term maintenance (no lime, fertilizer, and only annual to biannual mowing). These grasses can be used with native wildflowers to create a natural meadow. Native grasses can also serve as accents in ornamental plantings where introduced grasses are commonly used. A commonly used ornamental grass, Miscanthus or Chinese silvergrass, should be avoided as some genotypes spread and become invasive in natural areas.

All the cultivars listed below are adapted to the Northeast. Those in bold were developed specifically for their ornamental value.
Wildflowers Adapted to Sunny, Dry Sites

Aegilops canadensis – wild columbine
Asclepias tuberosa – butterfly weed
Aster speciosus – showy aster
Baptisia australis – wild blue indigo

Chamaecrista fasciculata – prairie coneflower
Coreopsis tinctoria
Echinacea purpurea – purple coneflower

Herbaceous Plants

Carex pensylvanica – Pennsylvania sedge
Deschampsia flexuosa/cespitosa – krummholz
Petrorhagia squarrosa – pink clandestine

Shrubs/Groundcovers

Artostaphylus uva-ursi - bearberry
Ceanothus americanus – New Jersey tea
Comptonia peregrina – sweetfern
Juniperus communis – creeping juniper
Myrica pensylvanica – Bayberry
Prunus maritima – beach plum

Purple lovegrass – Eragrostis spectabilis

Sorghastrum nutans – switchgrass
Trisetum spicatum – slender sedge

Indiansgrass – Sorghastrum nutans

2a. Dry sites, Full – partial sun: Improved Varieties of Native Warm Season Grasses

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Cultivar(s)</th>
<th>Maximum Height</th>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Cultivar(s)</th>
<th>Max. Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big bluestem</td>
<td>Andropogon gerardii</td>
<td>“Niagara”</td>
<td>7 feet</td>
<td>Purpletop</td>
<td>Tridens flavus</td>
<td>4 feet</td>
<td></td>
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<tr>
<td>Bromus spp</td>
<td>Andropogon virginicus</td>
<td>9 feet</td>
<td></td>
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<tr>
<td>Coastal panicle</td>
<td>Panicum amarum</td>
<td>“Atlantis”</td>
<td>6 feet</td>
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<tr>
<td>Deertongue</td>
<td>Dichanthelium clandestinum</td>
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<tr>
<td>Eastern gamagrass</td>
<td>Tripsacum dactyloides</td>
<td>“Pete”</td>
<td>8 feet</td>
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<tr>
<td>Indiangrass</td>
<td>Sorghastrum nutans</td>
<td>“Sioux Blue”</td>
<td>6 feet</td>
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<tr>
<td>Little Bluestem</td>
<td>Schizachyrium scoparium</td>
<td>“The Blues”</td>
<td>3 feet</td>
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<tr>
<td>Prairie cordgrass</td>
<td>Spartina pectinata</td>
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<tr>
<td>Prairie dropseed</td>
<td>Sporobolus heterolepis</td>
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<tr>
<td>Purple lovegrass</td>
<td>Eragrostis spectabilis</td>
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</tbody>
</table>

2b. Partial Shade, Dry sites

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Cultivar(s)</th>
<th>Maximum Height</th>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Cultivar(s)</th>
<th>Max. Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bush lupine</td>
<td>Lupinus polyphyllus</td>
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<tr>
<td>Alpine penstemon</td>
<td>Penstemon angustifolius</td>
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<td></td>
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<tr>
<td>Little blue flax</td>
<td>Linum perenne</td>
<td></td>
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<tr>
<td>Commonly called</td>
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<td></td>
<td></td>
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<tr>
<td>Other names</td>
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</tr>
</tbody>
</table>

Euphorbia fulgens – Spurge – shrub

References & Resources

Books

The Organic Land Care Program

by Kim Stoner

For me, it started in Quaker Meeting when I talked with Connie Eash, an anti-pesticide activist, who works with people with multiple chemical sensitivities and is also the mother of a chemically sensitive son. I mentioned my work with organic farmers and my volunteer work with NOFA. Connie was appreciative, but she also said, “Of all the chemically sensitive people I know, none of them was initially poisoned by pesticides in their food. It is much more common for them to have been poisoned by pesticides used in buildings or in the landscape.”

That reminded me of my perennial frustration at home. I live in a condo. The committee, hard at work last winter, hammering out the Land Care Standards. The only solution we could see would be for organic management to be part of the agreement between the professional and the client. The client would be the inspector. From this idea, we planned our program for land care professionals. First, we had to write standards. The standards would spell out for the professional and the client what organic land care means. Then, we had to develop a course for the land care professionals, so that there would be people who understood the meaning of organic and who were prepared to provide organic service to the clients who requested it. The graduates of this course would make up the NOFA list of accredited organic land care professionals. Finally, we would write a guide for clients and other concerned citizens, explaining organic land care and their role in making sure their property was cared for organically. The Boards of Directors and Certification Committees of Connecticut and Massachusetts NOFA approved this approach, and we were on the road.

The standards have been a long time in development, but they will be available by the time you read this. We started from the agricultural standards in our two states, but the land care profession has issues entirely different from production agriculture. One example is the issue of plant choice. In agriculture, the vast majority of plants are not native to our bioregion, but in organic land care, we could express a strong preference for plants native to the local bioregion, while allowing non-native plants, as long as they were not listed or likely to become invasive species.

Writing these standards is a major achievement. These are the first comprehensive organic land care standards anywhere in the world, as far as we know. Members of the committee have been getting inquiries from all over the U.S., so we hope that these standards will become the model for organic land care programs everywhere.

We are currently hiring a curriculum coordinator to help us develop the pilot course for land care professionals, which will be held in Massachusetts in February of 2002. Programs for the public are being planned for Massachusetts, as well as a survey of garden centers to identify those selling organic materials and not selling invasive plant species. As we get more funding, we are hoping to write the citizen’s guide, to put on another course for professionals in Connecticut, and to have homeowners’ workshops.

To order a copy of “Standards for Organic Land Care: Practices for Design and Maintenance of Ecological Landscapes,” write to Connecticut NOFA, P.O. Box 386 Northford, CT 06472-0386. The price is $18.87 ($20 including the 6% sales tax for CT residents) and $3.00 shipping and handling. For information about the pilot course for land care professionals in Massachusetts, call NOFA/Mass at 978-335-2853.

The committee, hard at work last winter, hammering out the Land Care Standards. The committee, hard at work last winter, hammering out the Land Care Standards.

The committee, hard at work last winter, hammering out the Land Care Standards.
The people who brought you these standards:

It's just after 10 o'clock on a Tuesday night, any month in the next year, in the conference room at the top of the Valley Laboratory in Windsor, Connecticut. A little group talks away, trying to work out a consensus on yet another controversial issue in the standards. It could be how and whether to restrict the use of leaf-blowers and other polluting engines, whether there really is a disease risk from blood meal and bone meal fertilizers in the U.S., or, going back a few months, how much nitrogen should a landscaper be allowed to apply (as organic fertilizer or compost, of course) to a lawn per year. We are all starting to think about our long drives home, but we are also committed to sticking it out, continuing the discussion by e-mail if necessary, in order to get a standard we can agree on, and then we will move on the next question.

We know each other quite well by now, not necessarily the details of each other's personal and day-to-day lives, but certainly the details of our particular passions for care of the land and the environment.

• Mike Nadeau, of Plantscapes, Inc., has been a land care professional all his life (and pushed for us to call it "organic land care" and not landscaping). He is already well known in NOFA for his enthusiastic workshops on organic arboriculture. He has both a mystical and scientific dedication to the health, beauty, and spirit of trees. He also is fascinated by meadows, and by studying local models of natural ecosystems in order to design landscapes with locally appropriate native plants. His tag line from the beginning has been, "Where there is passion, there is verbosity," and we sometimes have to prune his verbosity a bit, but his passionate dedication to organic land care has kept us moving forward.

• Kathy Johnson, of the Natural Resources Conservation Service, brought to our group her unique dedication for preserving our native soils as they are, wherever possible. Just as others are advocates of a diversity of native plants, she argues that our own diversity of soil types helps to create a diverse landscape – and soils we may think of as poor from an agronomic point of view are, in fact, the best habitat for many of our native plants. She made us rethink the standard organic line, "Feed the soil, not the plant," by saying, "If you keep feeding the soil, you get fat soil."

• Mary Tyrrell, of the Yale School of Forestry and Environmental Studies, is the point person on the crusade against invasive plants. She was also the final editor of the standards, so she had the difficult job of getting us to stop re-writing and rethinking so that we could actually get the standards done.

• Joanna Erikson, representing the Grassroots Education Service, brought to our group her unique dedication for preserving our native soils as they are, wherever possible. Just as others are advocates of a diversity of native plants, she argues that our own diversity of soil types helps to create a diverse landscape – and soils we may think of as poor from an agronomic point of view are, in fact, the best habitat for many of our native plants. She made us rethink the standard organic line, "Feed the soil, not the plant," by saying, "If you keep feeding the soil, you get fat soil."

• Priscilla Williams and Kim Stoner pour through files while meeting with the Land Care Standards Committee. She retired from a career in public health. She brings us formidable organizational skills, having actually written standards and manuals in her career, and an array of connections to the environmental community and to granting sources.

• Priscilla Williams, who moved during the last year from being an employee to being the owner of Pumpkin Brook Organic Gardening, Inc., is our specialist in garden beds and what is planted in them – perennials, annuals, herbs, even ornamental vegetable gardens. She is also the leading grant writer in our group, with a wide experience in raising money for other organizations and an ability to turn out pages of prose on a deadline.

• Todd Harrington, of Harrington’s Organicare, draws information from organic agronomists like Neil Kinsey and the workshops and publications of ACRES U.S.A. on how to build soil and balance nutrients, especially for growing lawns. He is always reaching out for new information and tools through his network of organic soil and plant experts, and he is becoming an expert and consultant himself. One measure of his dedication to our group is that he kept coming to our meetings, even as the new father of twins.

• Don Bishop, of Gardens Are..., is another land care professional continually searching for new information, restlessly questioning and experimenting. He occasionally had to step in to keep us from setting too many restrictions, reminding us of situations where the professional needs certain tools and materials in order to do the job efficiently and economically. He also recently had a new daughter to add to the rest of his brood.

• And then there’s me, Kim Stoner, who is really a vegetable entomologist and doesn’t know much about landscape plants, but who started this ball rolling and tries to keep it moving along. (Committee note: The rest of the committee just couldn’t let Kim get away with that very modest profile of our fearless leader. She has truly been the force that kept us going through much hard work and many long hours of debate. Like any good orchestra leader, her quiet, yet determined leadership, persistence and hard work brought out the best in all of us. On many difficult issues she transformed strong and varied opinions into a consensus that everyone could live with yet that remained true to our core organic values.)

I know that NOFA has always functioned on the extraordinary dedication of volunteers, but this group, which has put together the first comprehensive set of organic land care standards anywhere, as far as we know, deserves special recognition. And, even though there are now standards, we aren’t finished yet. This is only the beginning of the NOFA Organic Land Care program.

Bibliography and Sources of More Information on Organic Land Care

Organizations of General Interest, Their Publications and Websites

Appropriate Technology Transfer for Rural Areas (ATTRA). Provides information about sustainable agriculture. Publications include: list of soil testing labs, composting, compost teas, sustainable lawn care, ATTRA, P.O. Box 3657, Fayetteville AR 72702; 800 346-9140; http://www.attra.org

Bio-Integral Resource Center (BIRC). Least toxic pest management. Publications include: The IPM Practitioner and Common Sense Pest Control Quarterly, BIRC, P.O. Box 7414, Berkeley CA 94707; 510 524-2567; http://www.birc.org


Ecological Landscaping Association. Educational workshops and forums. P.O. Box 2924, Framingham MA 01703-2924, 617 436-5838; Website: http://www.ELA-ecolandscapingassn.org

Long Island Organic Horticulture Association. Membership organization with classes and trade shows of organic products. LOHFA, 90 Pennsylvania Avenue, Massapequa NY 11758; 516 541-4321

New England Wild Flower Society. Membership organization offering education and information about the use of native plants in the landscape. 180 Hemenway Road, Framingham MA 01701; 508 877-7630. Website: http://www.newfs.org

Northeast Organic Farming Association. This is a regional organization, with chapters in 7 states. The Connecticut and Massachusetts chapters have joined together to form the NOFA Organic Land Care Committee, which wrote these standards. CT NOFA: P.O. Box 386, Northford CT 06472-0386; 203484-2445; http://ct.nofa.org. NOFA/Mass: 411 Sheldon Rd., Barre MA 01005; 978 255-2833; http://ma.nofa.org

Organic Materials Review Institute. Reviews materials for adherence to organic crop production standards (on which our standards for materials are based). http://www.omri.org/crops_alpha.PDF

University of Connecticut, Cooperative Extension System, College of Agriculture and Natural Resources, 1376 Storrs Road, University of Connecticut, Storrs, CT 06269-4036; 860 486-6271; Website: http://www.uconn.edu

www.newfs.org
Long Island stretches all the way from New York Harbor almost to the Rhode Island border. It is a 116-mile long relic of the last Ice Age, deposited by glaciers which had reached their furthest southward descent.

Home to seven million people, much of the western part of the Island has been developed and marketed to those pursuing the American dream of a single family house, a car (or two) and a yard.

But, given it’s geological origins, Long Island is very sandy and acidic. The natural environment isn’t conducive to nice green laws, especially in the high summer when rainfall is simply not adequate to sustain grass. So, after the rapid development of the chemical industry in the 1950s, residents began to use lots of synthetic fertilizers, herbicides, insecticides, and fungicides in their search for a nice looking lawn.

A generation later, samples of ground water are turning up containing toxic breakdown products of these chemicals, and the incidence of breast cancer on the island is so high that it is the subject of a federal study by the EPA. One local organization, Neighborhood Network, is focusing attention on this connection and trying to bring residents to an awareness of the organic alternative. They publish a directory promoting organic lawn care, survey and publish lists of stores which carry organic lawn products, and have created an all-organic landscaping professional group, LIOHA (Long Island Organic Horticultural Association).

Neal Lewis, executive director of the group, says: “It’s a team effort. We have 21 environmental and breast cancer groups, all across Long Island, that are distributing this information to their memberships. We’re using this as a means to counter the large budgets of the chemical companies. It’s really a comprehensive service. First we give them the tips so they understand the issues involved in maintaining their lawns organically. Then we give them descriptions of the products they can use. They’ve heard of pesticides and herbicides, but they haven’t heard of rock dust, minerals, the role compost can play on a lawn. Then the problem is where can they get the products. A lot originally were only available by mail order. Most of the garden centers on Long Island are not providing a good selection of organic products. So we did surveys every two years over a 6-year period and chronicled how good a job stores were doing of providing alternatives to pesticides.

We put our information in our material recommending stores with good selections.

“Now it’s beginning to become comprehensive,” he adds. “You have the tips, the descriptions, where to find them. Then we would run into people who are members of ours. The fact that we have a door to door canvassing keeps us very grounded in the real world of our membership. Some of the groups I meet in coalitions take very adamant positions, but we’re an environmental group, but we’re not protecting the environment in order to live a typical suburban life and maintain a lush, green, healthy lawn.”

Neal Lewis, executive director of Neighborhood Network, talks to the press about the release of the LIOHA 2001 Organic Landscaper List. Sixteen organic landscaping companies have met LIOHA’s standards are were approved for participation. On left is Steve Restmeyer, LIOHA president and owner of one of the qualifying businesses. On right is Karen Miller, president of the Huntington Breast Cancer Action Coalition.

Neighborhood Network has a program staff of 6 people, a canvass crew of some 20 college-aged kids, and a phone staff for fundraising. Their membership of over 10,000 is acquired by door-to-door canvassing and is their primary financial support. In addition to the organic landscaping work, Neighborhood Network is also working for early intervention in mosquito areas to prevent later health problems with West Nile Virus and calls for spraying. Governor Pataki recently signed a law Neighborhood Network initiated, calling for neighbor notification when pesticides are sprayed by professional applicators such as landscaping companies or exterminators.

Lewis is from Long Island initially. He got involved in environmental issues while a student at Nassau Community College and did a report on Long Island’s drinking water table for a biology class. He liked being an activist so much he took a year off to work with NYPIRG on environmental issues. After graduating in 1985 he went to law school and emerged with a degree in 1988.

“When I was going to law school,” he says, “I wasn’t going to come back to environmental activism. I assumed I’d work for a legislator, maybe, getting new laws passed. But I didn’t really have a plan. The law profession leaves a lot to be desired in terms of careers. Criminal law is disgusting. If you are a prosecutor you really have all the resources and overpower the defendant, except for the few cases involving the very rich. Prosecutors get away with all sorts of things that are improper. My father was a cop so I’d had enough of that. On the flip side, who wants to defend criminals all the time? The reality is, for a criminal lawyer, that the vast majority of your clients are all guilty! Then there’s corporate law, tax law — that’s an accountant with a law degree. I’d glaze over. Real estate seems to be very boring. You really don’t have that many options when you come out of law school.”

So Neal ended up working for Neighborhood Network on half salary. Over the years he has cobbled together a financial base of membership and small donations which has enabled the organization to chart its own course. He feels strongly that groups which depend on foundations for their primary funding are soon diverted from their real work into what will keep their names in front of the funding sources.

“I’m big on substantive work,” he stresses. “Some people think we get a fair amount of press. But we really don’t. I’m not as good at working with press as I should be. But I get frustrated. A lot of the activist groups are more focused on seeing their names in the paper than getting meaningful accomplishments.”

The work Neal is currently most actively promoting is the transformation of the county park system, especially its golf courses, to 100% organic management. As he puts it: “I had a strategy that goes back to 1995. I had already been working on pesticides, working for alternatives. One of the questions was, how far can we push the envelope? A lot of people were big on IPM. We wondered if that was all we could get, or could we go for 100% organic? While we were debating that, I was invited to attend a meeting of a couple of golf course superintendents, which was organized by environmentalists. This was a fledgling group. At the time I’d never played golf and didn’t know much about it. When I got to the meeting I found the environmentalists were very anti-golf.

“The superintendents,” he continues, “had gotten a lot of interest for doing some IPM things, but the group fell apart after a couple of meetings, partly because the superintendents felt it was impossible to maintain golf courses at an acceptable level without chemicals. They talked about the number of golfers — the tens of thousands who would be marching across their turf. The compaction was a real problem, as well as just being able to find time to work on the land with it so much in use. They talked about having to cut the grass so short, and then constantly water it for growth, but the water being
perfect for fungus problems. So I said: 'Golf is the hardest. If you can get 100% organic on golf courses, you've cracked the nut! The Holy Grail of the pesticide fight is getting golf courses to be organic. If you can prove that you can maintain golf courses organically, then there’s no reason that the person with the typical lawn needs chemicals!'"
in. You get a much more dramatic break when you get a faster roll. So what you say to a golf course when you say we don’t want you to grow your greens so short is: “We don’t want a world class course. We don’t want a signature course.” Most golf courses being built today want to advertise themselves that way. So environmentalists are giving up the argument if they say you can’t have an organic course unless you grow the green taller.

The big fungus on Long Island golf course greens is called ‘Dollar Spot’ because it’s the size of a silver dollar. It’s very common and the source of much controversy. It’s a disease of the turf, affecting the roots of the grass. Cornell University is currently conducting a test on the West Sayville course, comparing fourteen biopesticides, microbial inoculants and other organic products for their ability to control the disease. None of the products is a compost deriva-
tive, and none of the test squares have been prepared using organic practices, so Neal doubts that positive results will be achieved.

As he puts it: “They’re not taking a box and saying: ‘Within this box we are doing all the things that people who promote organics are saying is necessary to do to get an effect.’ They’re not doing that with any one of these boxes. I would do that with compost teas, rock dust minerals, organic fertilizers, kelp, a number of different things to get this soil going right. Then I’d test that box against one next door which just had chemicals. But they’re not doing that. They’re just testing one product against another in an environment where none of them were designed to work.”

Lewis thinks what Suffolk County needs to do is buy itself some new equipment to apply a lot of liquid compost (compost tea) on the greens. He says: “You have to concede that what you are doing with a golf course turf is not natural. It’s very far from natural. So it is going to require significant inputs. This means lots of liquid compost on the greens and the Tees, the areas you Tee off from. You need a lot of microbe activity to keep the fungus under control.”

One benefit of golf courses over home lawn management, of course, is that with the former you have highly trained people with an intensive budget. A private course can easily have a $100,000 “chemicals” budget, says Lewis, and with those kinds of numbers an organic approach can be much more active with staff, equipment and inputs. Public courses, of course, are not as heavily supported as private ones. There are plumbers and carpenters trucks among the SUVs at West Sayville. But fees still enable intensive management.

Suffolk County Parks Commissioner Peter Scully is one of the key figures responsible for the success of the organic golf experiment on Long Island. Peter is an experienced functionary in the county, having worked for the county executive and the Town of Islip before this. His attitude could well spell the success or failure of the project. On the day I visited, he was expressing reservations.

“We’re committed to making this work,” he assured me. “We support the policy makers. They had the best of intentions in passing this law. But we’re in a position where we’re not just on the cutting edge. It’s a competitive bidding. This in a market where there are no clear techniques and products that are effective. We find ourselves experimenting a lot. We’re not in a position to be experimenters, understaffed and with limited resources.”

Scully stressed his view that only if he were given more resources could the program succeed: “For us, the issues are scientific issues and availability of resources. The county tends to be a leader in environmental and public health issues. That’s great. There was a lack of understanding on the part of county officials at the time they enacted these laws that to move away from chemical pesticides would mean that we would need more resources. That continues to be a real issue for us. Golf courses are staffed at about half of what they should be for conventional maintenance practices. It’s kind of a struggle to meet the challenge of going organic. There aren’t any ‘tried and true’ alternatives to pesticides right now. On top of that the procurement guidelines that we are required to follow call for competitive bidding. This in a market where there are no clear techniques and products that are effective. We’re trying to come to grips with the fertilizer piece. One of our problems is being so understaffed. We have only 6 or 7 guys a course for maintenance. We’re coming to grips with the fertilizer piece. One of our problems is being so understaffed. We have only 6 or 7 guys a course for maintenance. We would do well for conventional management at 9 or 10. We’d like to have 12 or 13 people per course to do an organic course. The greens get mowed every day, and the fairways every other day. It’s easy to go organic if you are dealing with high grass situations, but the grass at 6/32 of an inch on the greens is where the problem is. It really is the stress of cutting that to that level and having 55,000 golfers a year play on it. That’s the number of rounds we get on a single course. We know what to do, we just need additional resources to do it.”

Ed Matthews is the Superintendent of Parks for Suffolk County. He is the guy charged with coming up with the solutions to the problems of organic golf. He estimates the annual operating costs for each of the county’s golf courses at about $200,000. But the average public golf course revenue in Suffolk County is $1.5 million. Clearly, golf is a profit center in public park fiscal planning. But the costs of new equipment and training personnel to fully implement an organic approach are killers. Ed repeats Scully’s call for more resources, and puts specific price tags on it: “Two other forms of organics which we would like to get into are going to require special equipment and increased manpower. One is compost teas, which will require us to purchase a compost tea maker. That’s about $13,000. It’s not an anaerobic. You can’t keep it in barrels in a storeroom. You have to get it out quickly and then you have to pay for the equipment to apply it. That’s about $26,000. And we have to train personnel in when and how to go about that. You can’t put it out in full sun, you need to wait until before dusk. There’s so much to learn about that. It’s not in a very ambitious program. I don’t foresee us being able to implement that before the next growing season.”

“The other area,” Ed continues, “is high quality composts that we would like to use on our Tees and our fairways. Over the long term that will improve the viability of the soil and plants. The problem we have short term is an equipment one. I’ve identified a material handling system — a machine — with spinners on the back which can take the compost and spread it on the fairways and Tees. That’s on our wish list for equipment. This year we hand spread compost and tilled it into hardpan areas. That is super labor-intensive. The results are there — I did it as a demonstration for our greens-keepers. You get positive results, even for shaded areas. No irrigation, just giving the soil what it needs. But it is labor intensive. We’re raising the bar, but as we do that your cost per ton is going to go from $13 to $26 to $27. It is better material. But if you don’t get material which has been properly heated, you can introduce disease to your course.”

Organic fertilizer is another product of which Ed would like to use more. He has used two formulations he likes. One is a very fine mix which has good solubility and washes down into the green. The other is not as soluble and they use it on the fairways. Because of the cultural practices Ed and his team have implemented in the last couple of years the fairways are in much better shape. He believes organic management has given them less burn, especially in the summer.

The U. S. Golf Association recently did a site visit of all the county’s public courses. They suggested that one of the grass species at Indian Island course was in danger from a fungus, so Ed ordered seed for a different species. The disease did hit and they overseeded with the new grass. It worked, and the...
comply with LIOHA’s rules for products and practices, and will allow independent inspections to ensure compliance with LIOHA’s standards. The organization has an 8-page contract for listed businesses. Included in the contract is the agreement to allow an inspector to go over the business purchase records, go along on a service call, do an extensive inspection once a year and show up for surprise inspections at any time. Currently 16 companies are on the list.

“Sixteen companies may not seem that impressive,” says Lewis, “but we wanted to set a high standard. Our companies are primarily the smaller ones. We have one or two which are big enough to handle a wider area. But the bigger operations are usually not prepared to make the plunge to go fully organic. They want to go part of the way and provide some organic services while continuing to use chemicals. The reason we don’t list landscapers who offer both organic and chemical treatment is that we felt that it was a question of quality that was potentially at stake. If you say the company has to be 100% organic it’s easier to check up on them. Lets say you accept a company that has 50% organic business. If you go to their operation and find all these chemicals they can say they just use them with some customers and we can’t check that out very easily.”

The organization is set up as a trade association and no more than 1/3 of the board can be from outside the profession. Neal is chair, and runs it out of the Neighborhood Network, but the landscapers really set their own standards. There was real disagreement on the standards, he reports. Some landscapers wanted to use homoeal, but others were concerned about prions. Some wanted to use biosolids because they were cheap, but others were adamant in opposing them (the final standards forbid their use).

LIOHA ran a trade show where they brought in all the makers of organic products and exhibited their lines, and invited a number of landscapers who are interested in organics but aren’t fully there yet. Two hundred showed up, a good start. But Neal notes that there are 2500 landscape professionals on the island who could have come. So he figures they have a long way to go.

Steve Restmeyer is a professional organic landscaper and president of LIOHA. He specializes in the use of native and adapted plants to create unique landscapes. He has studied the flora of the area extensively in order to plant species which will thrive in the sandy, acidic soil.

“When I do a home I try to create an outdoor sanctuary, a living space,” he says, guiding me around the yard of one of his clients. “They have this constant wind, here, coming in off the bay. All the trees that are in this business, the more prices will come down. He figures it can only grow. The more people who are in this business, the more prices will come down because the constant fluctuating trees the leaves.”

Neighborhood Network has existed since 1984, and Neal is the second director. It began by working on incinerators and open space issues, but began to focus more and more on pesticides because of the breast cancer rates. Last fall they developed an education series: “Four steps to an organic lawn” and had ten forums for average homeowners around the island in March. One of the big areas they want to move into next is athletic fields at schools. In Yaphank the school is building 22 athletic fields, one of which will be a signature course. In addition they are building 10 organic soccer fields. Neal wants to use them as an example of how to use organics to manage athletic fields — to take what they’re learning from the golf course work and mash it with the neighbor notice laws — which will disclose to parents the level of chemicals used in schools. He figures a lot of parents will end up challenging the schools as to why they are using so many chemicals. There are over 120 local school districts on Long Island, each of which can have several buildings and schools and is pretty independent. Although it would be hard to tackle them as a group, he hopes the parents will take them on one by one.

“My client is interested in getting as much food as possible,” he says, “so I also plant currants, gooseberries, rhubarb, raspberries and blueberries. Globe thistle here, will attract the goldfinches — they eat the flowers. There’s hollyhock, catnip — it’s the mint family. Different species have use at different times of the season. This is anise hyssop, which is a great soil builder and helps choke out other weeds. Here’s a paw-paw tree. The wind is hard on any large-leaved plant, because the constant fluctuating tears the leaves.”

Lewis has plans to expand the organic landscaping work next year as well. He’s going to expand the resource directory to include tips on energy conservation and list health food stores and organic farms. He figures it can only grow. The more people who are in this business, the more prices will come down and the bigger it will get! 

To find out more about Neighborhood Network contact them at: 90 Pennsylvania Ave, Massepequa, NY 11758, 516-541-4321 (fax: 516-541-4401) website: longislandn.org
Organic Landscaping, Ecological Landscaping
by Jono Neiger, Kemper Carlsen

Landscaping. Landscape. Our homes, our yards, our gardens, hedges, and edges. Looking at these spaces ecologically makes a lot of sense. There are many ways to make them more ecological and it usually involves how we relate to them. The more we integrate our landscapes with our homes and lives, the forest or farm or other landscape next door, the better. Learning to see our landscape as not a stagnant showcase which we constantly work to keep pristine and manicured is a start. It can be a dynamic place full of life and its daily, seasonal and lifelong changes. Each area of our garden, forest, or yard says something to us by what plants grow there, what animals visit, what light and rain it gets, or how the air moves through it. We may pass a bed of plants regularly as we go to and from the house. Looking out the window we see a stand of trees or a lawn. Each of these spaces provide us with the opportunity to design for beauty, food and wildlife. They further give us the chance to become more in tune with that land, that landscape, and to give back to the larger environment.

Here is an example. The plant bed near the house that you pass by often is fed by the compost you make in your yard from kitchen food scraps. Most of your produce came from either your yard, the neighbor’s garden, or the local CSA farm (Community Supported Agriculture is a system where individuals buy shares in a farm’s production). The careful planning and design of a landscape like this is important. By matching the elements to your needs and vision for your space, it can be easy to care for, non-toxic, productive and fun. This is a nice vision and I would like to add that it is not fanciful or hard to reach. In fact these ideas and many others can and have made the landscapes around us more a part of our lives.

Hedgerows
Borrowing an old idea and applying it anew, hedgerows can serve many functions on your landscape. Hedgerows were an important part of European and early American agriculture. They helped in defining land ownership, wind and water protection, erosion control and provided food and firewood. Today they are mostly thought of as a single non-edible species, trimmed like a box, providing the single function of a visual screen. More in keeping with tradition, hedgerows can be multi species plantings providing a variety of functions and uses in a yard, garden, farm or park. They can include plants for food and medicine, flowers, livestock forage, mulch material, wildlife food, wildlife habitat and attractors of beneficial insects. Hedgerows can be designed to block wind, rain and sun, stop erosion, create visual screens, fences, or simply to define a space. They are being rediscov ered as filter strips along pastures and farms uptaking nutrients from manure before they reach streams or lakes. Hedgerows can play an important role in reducing runoff and topsoil loss. Hedgerows tend to be long and narrow, maximizing the amount of edge available. In nature, the place where two habitats or landscapes come together (an edge) is one of the most productive zones. Because many birds use edge habitat, a hedgerow tends to be self seeding as the bird droppings bring seeds (often from fruit and berry bearing species) from other areas. Many a landowner has seen a simple fence line turn into a hedgerow from bird imports alone. Hedgerows can be thick and wild with many native tall trees and shrubs, or the can be smaller and filled with a selection of cultivated plants. We need only to realize that hedges (and edges) can be places of great productivity as much as the more traditional garden plot.

Kemper and Jono live in Shutesbury, MA. They recently moved there from Oregon where they taught a permaculture and land stewardship apprenticeship. They are doing ecological landscaping in the area and teaching an introductory workshop in permaculture at Sirius community in Shutesbury on September 22,23 and October 27,28. They can be reached at 413-259-3734 & talltree22@hotmail.com
for effective turf management, like on a golf course,

...Work Both Sides

by Joel Simmons

The golf course superintendent has arguably the most difficult soil management challenge in all of agriculture. After speaking recently to a group of farmers on the issues of balancing soils, I was sitting at lunch with a few who were complaining about soil compaction. As I was listening, I started to chuckle to myself (or so I thought). One fine gentleman looked at me somewhat disturbed by my grin, so I quickly explained to him that most of my work is with golf course superintendents, who average 40,000 pairs of feet per year over small areas of around 3,000 square feet - not to mention the physical pressures of daily maintenance. They were concerned about running a plow over their fields twice a year, which is a serious problem but nothing like what a superintendent faces on a continual basis.

When a soil gets the kind of physical pressure that a golf course green receives each and every year, there is simply no way to avoid damage to the soil structure, even given proper mechanical aeration. Movement of air and water is severely restricted. Consequently, microbes cannot function effectively. The over-use of salt fertilizers can actually add to the physical damage of the soil by creating an imbalance in the carbon-to-nitrogen relationship. This will also affect the activity of beneficial bacteria, further restricting nutrient mobility and ultimately leading to plant stress and potential disease pressures. Perhaps the ultimate resolution for the golf course superintendent, agronomically speaking, is to get rid of the golfers!!!

Nutrient mobility within the plant can be evaluated in a variety of ways, including a LaMotte water-soluble soil test or a good tissue test. The LaMotte test is a “weak Bray extraction”, which uses an acidification process intended to replicate the level of acidification that may be found in the soil. This is just another tool - not an exact science by any means - but it can reveal some interesting things. Standard soil tests may not demonstrate nutrient mobility as dramatically, since they show what nutrients are present on the soil colloids but give no indication of their availability. Tissue testing, on the other hand, can reveal that even when the soil chemistry is in balance, nutrient mobility may be inadequate to provide the plant all it requires for proper growth.

The level of nutrient mobility (as indicated by the LaMotte test) on any given golf course will vary significantly from green to fairway. Nutrient mobility on a green is usually significantly less than that of a fairway. Biological indicators are also significantly reduced on greens when compared to the fairway soils. This is clearly due to the intensified physical pressure that a green receives compared to the same area in the fairways. No golf course superintendent will find this surprising, but the level at which even a good green is able to mobilize nutrients may be an eye opener.

While tissue testing can be of great value when trying to determine what is actually being taken up by the plant, neither a LaMotte test (kits are available from agronomic supply stores) or tissue tests should ever replace a good soil testing program. It is imperative that you work both sides of the equation.

Managing the soil on the basis of a good soil testing program will help to balance the basic nutrients on the soil colloids. This will help to open the soil physically, allowing for better infiltration of air and water, and in turn provide a better environment for microbial activity.

All good soil management addresses the chemistry, physics and (most importantly) the biology of the soil as one entity. Once this is done, managing the leaf will help assure the plant gets what the soil cannot always provide. Again, with the incredible physical pressures that a golf course suffers it becomes an important management practice for the superintendent to take care of both the soil and the plant as separate programs. Foliar feeding provides a viable tool for the superintendent to help battle an incredibly difficult agronomic environment.

Knowing that golf course soils, in the best of situations, are not mobilizing all that the plant needs is an integral factor when developing a foliar feeding program. The same foot traffic that affects nutrient mobility in the soil also creates a tremendous stress on the leaf blade. Foliar feeding can not only provide what the soil cannot, but it can also help to reduce the simple physical stress that the grass blade suffers every time a golfer walks over it, or each morning after mowing. The ideal foliar program provides a complete package of NPK, calcium, magnesium, trace nutrients, carbohydrates and other bio-stimulants to help feed beneficial bacteria and the plant. The most important aspect here, however, is these applications are made in a “small but frequent” manner.

“Spoon feeding” can be done in a number of ways. Many courses are installing fertigation systems that
can provide the mechanism to supply nutrients to the entire course at one time. This can be a tremendous labor savings, and many of the better systems offer the flexibility of multiple supply and mix tanks to blend small batches of nutrients or bio-stimulants for better control. These tools can be especially effective during a grow-in situation when it is so important to keep nutrient levels up since the plants and their root systems are so young. However, these systems don’t come without a price tag and not every course can justify the expense. A simple spray tank can provide all that is needed to work an effective foliar spray program. This method will apply the nutrients exactly where you want them, while saving money by not spraying unneeded areas. Flexibility is the key with a good foliar program; it provides you control and the safety of using only small amounts of nutrients.

The “soup mix” that you create for foliar application need: NPK, calcium, magnesium, traces and carbohydrates for the soil microbes. Available sources of nitrogen such as ammonium sulphate or urea at very low rates (1/10, 1/16... of a pound of N) are ideal. You should adjust these rates based on conditions without affecting the quantity of the rest of the mix. One of the advantages of a foliar program is that these “small but frequent” rates will allow you to use less nitrogen in the long run, which is certainly beneficial agronomically. Do slow release liquid forms of nitrogen really fit into a program where you become the source of slow release? A good question that certainly has its own debate.

Phosphorous and potassium should be from clean sources such as phosphoric acid, potassium hydroxide or sulphate. Calcium is as important a foliar feed as any nutrient because it is used more in weight and volume than any other element. It is also extremely immobile and, even in the healthiest of soils, does not move into the plant well. For this reason, any golf course can benefit from foliar feeding this important nutrient. The application rate of calcium should be increased when the plant is under stress. Again, this shows the flexibility of a foliar program. Although not needed at the same rate as calcium, magnesium should be a small part of a good foliar program. Magnesium is critical for many photo-synthetic reactions.

A complete package of trace nutrients including boron, manganese, copper, and zinc should be a part of any mix. Unfortunately, iron is often the largest constituent of trace packages and will dictate the rate of other, perhaps more important, nutrients. High levels of iron can actually restrict the mobility of other nutrients, including nitrogen. If iron is needed or wanted, it should be used, but controlling its application rates will help prevent restricting mobility of other nutrients.

Trace nutrients should be in the form of a good chelate such as glucochelate or citrates. Although more expensive than sulfates or EDTA’s, these chelated materials are much less reactive and will mobilize more effectively.

The other important addition to a proper foliar feeding program is a good source of carbohydrate or bio-stimulant. In addition to reducing the physical stress on the plant itself, they help to feed microbes which will in turn help to more efficiently mobilize nutrients to the plant. In general terms, the best way to increase the over all mobility of nutrients in a soil is to “feed the soil” and increase the beneficial bacteria activity. Sugars, humic acids, fish and kelp meals are all good choices to help further round out your program. Again, they should be applied in very “small but frequent” rates.

To get a really complete “soup mix” you will often have to do some of your own mixing, which unfortunately may not always be practical. Premixed packages can be a good start but may not contain everything needed for your situation. Most of these packages are loaded with nitrogen and iron, the two nutrients that should be used most sparingly and whose rates should be dictated by you, not by a manufacturer. Remember: when preparing a mix, it’s imperative that you always do a bench test first. If problems occur, most likely it will happen in the tank, and not as a phytotoxic reaction. When in doubt spray your mix in a controlled area until you are comfortable with your blend. At low rates, with agitation, you can get a chelated calcium (positively charged cation) and phosphoric acid (a negatively charged anion) to tank mix with no problems.

Even when soils are properly managed and balanced with optimum nutrient levels, external environmental factors often prevent turfgrass plants from taking up nutrients that they need. At low rates, with agitation, you can get a chelated calcium (positively charged cation) and phosphoric acid (a negatively charged anion) to tank mix with no problems.

The real key is that this approach is “small but frequent,” and you can increase or decrease application rates based on the conditions and stress factors you face. This puts you back in the driver’s seat by giving you control and safety of application. There are as many foliar mixes as there are golf courses and superintendents. The bottom line is, “Do what works for you”.

Joel Simmons is a former County Extension Agent and the owner of Earth Works Natural Organic Products of Martins Creek, PA. He is currently teaching Soil Fertility at the Rutgers Turf Manage-ment Program. He can be reached at EarthWorks Natural Organic Products, PO Box 278K, Martins Creek, PA 18063, 800 732-TURF or eworks@soilfirst.com.
Organic Land Care with OrganiCare

by Jack Kittredge

The Farmington Valley area north of Hartford is, like much of Connecticut, rich with homes tucked away in still rural ex-farmland. Gently rolling hills of green separate town centers and the strip malls where business is done. Many house lots are carefully landscaped and the buildings well maintained.

Just as the number of acres of farmland is on the decline in Connecticut, the amount of land managed by landscape companies is growing. Increasingly, the clients of these companies are concerned about pesticides on their lawns and chemicals in their groundwater. So landscapers are developing non-chemical programs to offer such clients. Todd Harrington, of Harrington’s OrganiCare in Bloomfield, CT is one of them.

Todd grew up in the landscaping business. His father-owned a large landscape management company and Todd started landscaping with him when still a child, mowing lawns and doing maintenance in the summers. When he got older, Todd went to work for a turf care company and found that he especially enjoyed that. One of the people he worked with introduced him to the U/Mass program in forestry. Todd went there and graduated with an arboriculture and urban forestry degree, based on all the traditional methods of plant care.

After graduation in 1987, he worked with his father. But one day he was doing an estimate on a lawn that had just been treated by a chemical company. A terrible smell almost knocked him over and he felt like vomiting. That prompted him to think about making a change. He began to learn about organic management by joining organizations and going to classes. He joined NOFA and went to its conferences.

Todd had already come up with the name “OrganiCare” as suitable to a new business. But his father wasn’t interested in organics, and it was difficult for Todd to work with him while trying to make changes in the business. So after 2 years with his father, Todd started his own business.

Despite his business name, less than half Todd’s customers want 100% organic land management. Every year a number of them lose heart, he says, because they’re used to the luscious look which comes from soluble fertilizers. Todd can’t deliver that right away with organic products. Sometimes he can get people through that period, sometimes they can’t wait. So Todd and his staff all need to be licensed pesticide applicators to service the folks who aren’t willing to go all the way with organic care.

“Our organic program is more expensive than the chemical services,” he adds, “$15 to 20 per cent more expensive. So that hurts, too. Down the road customers save money with us, but not at first. The chemical lawn is cheap to start, but then people find they have to mow more often. They have to water more often. They have to aerate and dethatch the lawn. Down the road they’re spending all this money. With the organic approach we add some value to the soil early, but we lean the lawn from chemicals over time and pretty soon they’re healthy. Our lawns don’t have thatch. They come back quickly from drought.”

Todd also has a bio-remediation program for lawns that are in very bad shape. This involves several biological products that contain humates which absorb toxins left from chemical lawn programs — from 2,4-D or diazinon or other chemicals — and hold them against leaching until bacteria can break down and digest them.

Organic Care spends $20,000 to $30,000 on marketing each year. They put out flyers, buy ads in kids magazines, and paint ads on their trucks. Although it’s taken awhile for organic land care to catch on, Todd feels there is definitely a trend, now. Especially in those areas that are more apt to go organic than others. In Boston, for instance, he says people are looking down at who have a lawn without any weeds. It’s considered okay to have some weeds. So the acceptance threshold is changing. This is nice since it’s impossible to have a lawn that is 100% weed free.

One simple sign of OrganiCare’s success is that Todd is not taking any more customers this year. At three full-time employees, plus a couple of part-timers, he doesn’t have enough staff to handle more. He’s looking for more workers, but wants to find people willing to rethink how landscaping needs to be done.

Jon Paula, one of Harrington’s workers, explained his organic lawn program to me. They don’t provide mowing services, just horticultural treatments. A normal program involves 6 rounds, or visits, about 4 to 6 weeks apart during the season. Each is designed to provide the necessary services for that time of year. The timing of the visits may change if weather conditions are unusual, but a normal program has dry compost going down at the beginning of the season, then compost tea on the next round. During rounds 3 and 4 it is the hot dry period of the summer when less nitrogen is needed and there is less danger of fungal problems, so compost tea isn’t repeated until round 5. On round 6 humates are put down to help things overwinter and deal with weed mold.

When he goes out for a round he leaves general information including: what round it was, what he did on the property, did he treat any problems, the materials applied — earthworm castings, wetting agents, garlic, hydrogen peroxide, compost, acetic acid (vinegar) to control weed growth. He also leaves instructions for how to care for the lawn — how high to cut, to leave the clippings for nitrogen. At the beginning of the season they suggest people cut a little lower so that sun can heat up the soil. Later, they like grass taller so shade can prevent weed seed germination.

For the normal program, customers pay a flat rate per square foot. A half acre lawn would be about $800 a year. A soil test is included in the normal program, and Harrington may make extra recommendations from the test results — microminerals, organic matter, soil conditioners, microbial dethatchers. These would be extra options. Most of Todd’s business is with private individuals. The institutional landscaping market, he says, is very cut-throat. They have only one client. The Connecticut Institute for the Blind, in the organic program.

OrganiCare also offers complete renovations. In such a case they will kill everything off with acetic acid, rototill the soil, top dress with compost and sand, and then seed into it. Todd says the result is a gorgeous lawn which will be sustainable because it will hardly ever need to be fertilized. The turf will come in so quickly there will be relatively few weeds. But it’s a costly operation which may be feasible only with smaller lawns.

Compost tea is one of the key ingredients in Harrington’s program. Jon showed me their new compost brewer. “Dr. Elaine Ingham developed the process of making compost teas in an effective and easy manner,” he said. “A lot of the mixes are based on things she publishes in her magazine. This is a 50
This is the sign left by Harrington’s OrganiCare workers when they have finished a visit maintaining a 100% organic lawn.

gallon tank. If you are going for a foliar spray, you use about 3 gallons per acre. We’re using it more at 10 to 20 gallons per acre. This brewer runs off pumps, which circulate and add water and air to the compost. Suggested brew cycles are between 18 and 24 hours. It will all mix within itself. As the water is flowing across that applies the basket, it is pulling everything out and depositing it into the water. You can feel the heat generated in the tank! It’s like a compost pile. It’s amazing! We’re getting so much biological activity. When you add a compost flower, it is changing liquid. Diluted it comes out as tan or a light amber. You can also smell it and make sure it’s good.

“I use a mix of ingredients,” he continues, “depending on what we are applying the tea to. If we are applying a biofilm to turf, you want a bacterial tea. That would be 10% wooded materials and mostly organic matter that breaks down faster like leaves and grass clippings, and then some sand and dirt to help stimulate the biology. But this mix has a higher percentage of wood, which doesn’t break down as quickly and the fungal content is higher. This is something you might want to use with other materials on trees and shrubs, as a foliar spray, or as a soil drench to help control bad bacteria with good ones.

“I fill this cylinder in the brewer, putting in sea kelp and earthworm castings along with the compost. The microbial content in earthworm casting is phenomenal. By extracting all of those microbes through the water we are making an amazing biofungicide which is helping to fight off any disease. Stone dust is something we use in general mixes to help a lawn or shrub fight back from the devastation of a ChemLawn application. We use stone dust not only for the availability of nutrients — the things that were slowly depleted over time by harsh chemical applications, but it helps put positive electromagnetic frequencies back into the soil.”

Todd is also excited about the availability of dry compost products for lawn care use. “Here’s a wonderful product that anyone can use,” he beams, “pelletized compost, which can be applied with a spreader. Top dressing compost over lawns and beds is a phenomenal way of applying it. It’s also very easy. It breaks down quickly and helps to rejuvenate soils, adding a little extra organic matter. The microbial count in compost is high, which is what we’re looking for. This one is made from composted hay, straw, peat moss, lime, gypsum, poultry litter, cottonseed hulls, and corn cobs in Charlotte Vermont. It’s rated 2-2-3 for nitrogen, phosphate and potash. We also have green manures, primarily from grass clippings and leaves, that are turned once a month for at least 8 months, which are well digested and matured. We primarily do lawns with these. Turf is a hot topic, but woods, forest, and ornamentals are primarily fungi-related. You want to use wood chip-based compost with those.”

The initial soil test provides Harrington with a baseline analysis of nutrients. But he feels that one result, the ratio of calcium to magnesium, is critical. Eighty percent of the base saturation of the soil should be calcium and magnesium, and they should be in a ratio of 68 calcium to 12 magnesium.

“We look carefully at that 68/12 calcium/magnesium ratio,” he stresses. “It’s especially important for turf. What influences pH are the 5 cations: calcium, magnesium, sulfur, sodium, and hydrogen. We do a lot of gypsum applications because there is a lot of magnesium in these soils. The only way to get rid of magnesium is sulfur (when you combine them you get epsom salts — which leach out), and since gypsum is calcium and sulfur, at the same time you can bring the calcium up.”

Depending on the soil test, he also recommends the use of lots of other products. “Humates are fantastic,” he says. “They do wonderful things in the soil. We use Norwegian kelp as a biostimulant and growth enhancer for the roots. We use hydrogen peroxide — 35% food grade mixed 8 ounces to the acre in the tea — because it increases the oxygen flow in the soil. We have a lot of clay soil which needs more oxygen. We use surfactants from the yucca plant to flocculate the soil — to break it up. We use different sources of carbohydrates — molasses, sugar and dextrose. Our nitrogen sources are corn gluten, soy and humates. We also use fish emulsion — that’s a great source of protein, especially in summer. That’s when plants utilize protein best. We use a lot of different microbes for disease control and to digest thatch. There are beneficial fungi and bacteria. We use a product with 77 colloidial minerals in it, stone dust, compost, earthworm castings — a lot of different stuff. If you understand how they work, there’s a place for them.”

For weed problems such as crabgrass, Harrington feels the crabgrass will outgrow the grass unless you either use a chemical pre-emergent or top dress with several inches of compost and seed a very aggressive turf variety. You have to do that in the fall, since crabgrass is an annual that will die off. So you want to prepare your soil and have the grass established as thick and healthy in the spring. Then you cut it long — 4 inches — and that will prevent the crabgrass from coming back. Todd also uses corn gluten as a natural herbicide since it retards weed seed germination. But there is some question now if corn gluten can be secured which is GMO-free. He’s also a little worried about blood meal and bone meal, because of mad cow disease.

For grubs OrganiCare uses beneficial nematodes, as long as the soil can stay moist. If the homeowner can make the commitment to keep the soil moist, the nematodes will get around and incorporate themselves into grub’s bodies. Some nematodes are extracted from compost and go into the compost tea on a regular basis. Or they can be added in much heavier amounts as an option.

Applying compost tea, compost, minerals, etc. to landscapes all over New England requires moving a lot of materials. Harrington has found custom trucks to be essential in managing this work. Although expensive, the trucks allow workers to spray or spread products rapidly and keep hourly productivity high.

Jon showed me one truck. “It’s an $80,000 vehicle,” he admits. “But I have a 300 gallon tank and two 200 gallon tanks, giving me 700 gallons capacity. The big truck has a 900 gallon tank. It will cover four and a half acres of lawn. You back it up to a property and spray with this wand. This high pressure hose can reach tall trees — almost 90 feet up in the air. This is basically the equipment of a small fire truck. We have a 400 foot hose here so we can reach almost anywhere on most lawns. If necessary, we can move the truck. None of the trucks you see here are standard for the industry. We go at a higher rate of gallons per acre, we use a special wand, we can get smaller particle sizes through it — which allows stomates in plant leaves to absorb nutrients easier.”
Paul Cellini holds the “arbor jet” gun Todd patented to apply small doses of material directly into affected sections of trees. The gun uses a charge of compressed air to propel the liquid via a needle through the bark and into the cambium layer of the tree.

Harrington is sometimes frustrated by the demands of his customers for the perfect lawn of green, weed-free grass. He says, “You can’t tell your customers: ‘Sorry. You’re going to have to deal with that patch of clover’. Clover’s a great weed in your lawn. It’s a legume! It fixes nitrogen right out of the air. If this was my lawn I’d overseed it with clover. Wild violets! They have a nice flower to them. But people don’t want them. Just grass, and lots of it. The chemical system doesn’t do anything for the soil. It’s like treating the rug. Nothing goes below it. Lots of weeds can thrive in that situation. I can step onto a lawn and see what the problems are — acidity, magnesium deficiency, calcium deficiency — by seeing what weeds you have. Indicator weeds. Dandelions show a calcium deficiency — they’re great at pulling up calcium from below with the tap root, and they thrive where it is low in the soil. If you balance the soil for the turf, most of these weeds will disappear. But most people aren’t willing to wait years for this slow process.

“Thatch,” he continues, “is a result of people putting down a quick release fertilizer and then watering their lawns very shallowly. Roots will go where the food is. If the food is all at the surface, the roots grow into a thick mat. Some die and it all builds up into a fibrous layer of undecomposed root and grass material. It makes it really hard to water or keep healthy. Our soil test is a core taken from the lawn, so you can see the thatch on it, a layer between the grass and the soil. We believe lawns should get fed low amounts of nitrogen frequently. Currently the lawn, so you can see the thatch on it, a layer between the grass and the soil. We believe lawns should get fed low amounts of nitrogen frequently. Currently the lawn, so you can see the thatch on it, a layer between the grass and the soil.

“We look at the soil as a whole system, not just the grass. You can’t just treat the grass. You have to think about the whole system. We do a soil test, and then we apply organic matter and fertilizer. We use compost, which is rich in organic matter and beneficial microorganisms. We also use seaweed extract, which is rich in trace minerals. We believe that a healthy soil is key to a healthy lawn.”

Todd is active in the effort to get standards developed for organic land care. He says there are only 3 different groups that have standards for landscaping. “One is the Ecological Landscaping Association. Which has outdated standards and needs to change them. Then you have the people on Long Island who really have their stuff together. That’s LIOHA. Then we in Connecticut and Massachu-
Water for Every Farm

by Claude Genest,
Certified Permaculture Designer
Green Mountain Permaculture

As a Permaculture designer trained in Australia, I was giddily infected with a passion for the aspect of Permaculture that calls for the moving of earth. I love digging it by hand, and I love calling in the machines.

Good thing too, since the design for my property requires swales and berms to deal with the spring run-off that has twice in the last three years flooded our basement.

Dealing with this “problem” has allowed me to experience how the application of Permaculture principles can turn a problem into a solution, and a waste into a resource.

Strangely, we as a culture do not hesitate to use machines to destroy, uproot and flatten land, yet often recoil at the idea of using them to restore, regenerate and heal land.

Though they are costly to operate both financially and ecologically, Permaculture co-founder Bill Mollison points out that the output and sheer yield of a PC system dwarfs the energy expenditures of the heavy machinery that can be used to create them. Besides, he adds, when one considers the magnitude of earth-repairs before us, one quickly welcomes all the help one can get.

One of the greatest “helps” Permaculture has to offer are the earthworking techniques pioneered and perfected by P.A. Yeomans in his classic text “Water for every Farm”.

By carefully considering the land’s contours and water drainage patterns, we can, through a series of swales, berms, and ponds, drastically affect land’s energy expenditures of the heavy machinery that can be used to create them. Besides, he adds, when one considers the magnitude of earth-repairs before us, one quickly welcomes all the help one can get.

The principle is to release the water as though it were cascading out of an overfull bathtub - i.e. in a thin, wide “sheet”.

Swaling can assure that virtually NO water runs-off by serving not only to capture water, but also to direct excess water to and from ponds.

The role of water in soil’s overall fertility is greatly undervalued. The cheapest and most efficient way to store water is in the ground.

Five Good Reasons...

The temperate areas are actually better suited to the building of ponds than our stereotype view of Australia for (at least) five good reasons:

1. Our climates typically see precipitation exceeding evaporation so our ponds don’t just dry up. Conversely, in Australia, if they get it wrong and the pond evaporates, they often leave behind a saltified disaster.

2. We have a preponderance of clay soils to cheaply line our ponds.

3. We have an abundance of flora and fauna that critically depend on wetland ecologies and whose habitat is disappearing at a ferocious clip.

4. Rain doesn’t come at regular intervals. Ponds moderate climate in a myriad of ways.

5. Ponds, at almost any scale, are powerhouses of bio-diversity. Whereas conventional ag seeks to get rid of as much nature as possible to better “control” it, Permaculture actively cultivates ecologies and creates functioning ecosystems (of which gardens and ponds are but parts of a whole). By focusing on the overall health of our land/organism, we can help nature heal us. We can work with nature because nature works extremely well.

THE NUTS AND BOLTS

A swale then is simply a ditch dug along the contour and the berm is the corresponding mound of dirt that is scooped over to the downhill side.

As water finds its own level, and the swale is dug dead level, water fills, spreads, rises and then percolates into the ground at rates varying from 2 to 48 hours.

At selected (by you for best advantage) intervals along the length of the berm, you create a flat, dead level spillway to release extra water (which can be picked up by a downhill swale.)

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Care of the Earth

Obviously, this is exactly the opposite of what our engineers do which is to concentrate the water down a straight ditch where its acceleration makes it potentially erosive, and then dump it right into our public waterways.

Not good at all and worse still, the silt and nutrient rich water goes unused... For Shame!

While this may be the “common” sense way to deal with one’s flooding it was also clearly, at least for me, incompatible with Permaculture’s first ethic, Care of the Earth.

Thus for my property, it made sense to dig a swale (several actually), especially since the captured water would hugely benefit my nascent “Food Forest”. Plus, I was just plum keen to start a-diggin’.

A Softer, Easier Solution...

But, in a fit of lucidity, I recalled the PC directive to “effect the greatest change for the least effort”.

Indeed, there was a softer, easier, and less expensive option...

See, the excavating necessary to grade around the house and put in a proper driveway, resulted in a surplus of “Waste” material, (“extra dirt”) that typically gets hauled away and dumped.

As the pictures below show, I instead opted to have the machine operator lay out the dirt along a contour line that I had staked out. - In other words, I passed on digging a swale and merely created a berm. (I’ll get my chance to hand dig a smaller version later on)

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cheaply, easily, and best of all even spontaneously improvise with material at hand and turn a basement flooding problem into a productive permanent agriculture.

The monetary and ecological expense of having the dirt hauled away is eliminated, ecological benefits abound, and I am preparing for medium and long-term yields, even as I harvest chicken forage, green manure, buckwheat flour, and soil fertility this year.

Why aren’t these ideas more widespread again?

For more information, please don’t hesitate to contact us or schedule a visit to Green Mountain Permaculture on beautiful Isle LaMotte, Vermont. Contact Claude Genest, email: genest@together.net

Increasingly, organic land care is in demand. In July NOFA in Massachusetts and Connecticut sponsored the first Organic Garden Tour in Needham, Wellesley, and Newton Massachusetts to raise funds for the work of the joint Connecticut & Massachusetts NOFA Organic Land Care Standards Committee. Tour attendance was estimated at 150. Here landscape designer Mark Saydah, right, discusses his design at one of the Wellesley properties that was on the tour.

NOFA/Mass President Jonathan von Ranson talks with Ann Barker of Newton Highlands, one of the eight hosts of privately grown organic gardens on the tour. Barker has won numerous honors for her garden designs at the New England Spring Flower Show.
The New Farmers’ Market
by Vance Corum, Marcie Rosenzweig & Eric Gibson
published by New World Publishing, Auburn, CA

The second part of the book addresses how to make the market itself a success. The histories of a number of markets are sketched out, as well as pointers on location, timing, getting vendors, sponsors, hiring staff, managing concerns, and a wealth of promotional ideas and examples. With the growing number of markets in the country it makes a lot of sense for someone to come out with a book on the subject. They get organizers to help them think through all the issues and make their work fruitful. This publication really fills that niche.

The final section is really a follow-up to the second section, giving lots of example of programs trying farmers markets to their communities – Agro-Art Festivals, in-school cooking programs, connecting with health care, making the business decisions, standing on food policy issues such as genetic engineering or food safety. The vision here of farmers markets as new and important community institutions is really refreshing and hopeful.

I think even if the cover price of this book seems a bit high, one should look at it as a unique and special product designed for a limited but focused market. If everyone in the country has bought a copy for it’s manager to read, and then to make available to members on a revolving basis, it would be money wisely spent.

One complaint I have with The New Farmers’ Market is that the photos, of which there are a reasonable number interspersed throughout the book, are all far too small. They appear to have a reasonable enough resolution that they could be run as more than one-column photos. Virtually all, however, are less than 4 inches wide, many more like 2-3 inches. But they show groups of people or specific actions that take far more space to adequately represent than they are given. I don’t know what sense of false economy or poor editorial judgement would induce the mistake, but it detracts from an otherwise engaging and well-organized work.

by Michael Pollan
published by Random House

The people who create my favorite seed catalogs, Fedco and Johnny’s, realized long ago that gardeners and market growers looking for quality produce are willing to experiment in order to find varieties comparable in size, beauty and taste to the ones they are given. Many are less than 4 inches wide, many more like 2-3 inches. But they show groups of people or specific actions that take far more space to adequately represent than they are given. I don’t know what sense of false economy or poor editorial judgement would induce the mistake, but it detracts from an otherwise engaging and well-organized work.

I like books that defy categorization and cross boundaries. This book moves through many disciplines and could find a home in any sections of a book store or library: social history, natural history, botany, personal memoir, and gardening. Mr. Pollan deftly weaves religion, economics, politics, genealogy, and even food policy issues such as genetic engineering or human and plant co-evolution. You’ll read about the myth making that surrounds the amorphous and paradoxical character that was John Chapman a.k.a. Johnny Appleseed. You’ll learn about the pivotal role the temperance and Prohibition movements played in pomological development and how market forces have made apple growing the most pesticidally intensive of all agricultural crops. You’ll learn about the apple’s origins in Central Asia and how the human craving for sweetness and alcohol helped diversify the apple’s gene pool.

The section on the Tulip will take you to Holland and Turkey, and help explain the economic problems of speculative bubbles — can you say dot.com? In the chapter on marijuana, Pollan explores pagan rituals, witchcraft, medicine, humanity’s long relationship with mind-altering substances, the “war on drugs” and the genetic manipulation of a plant by underground entrepreneurs. Finally, the chapter on the potato explores the earth shattering impact of the potato on world history, the French fry industry, genetic engineering, and organic farming throughout the world. Mr. Pollan also explores our disturbing tendency to try to control nature and move beyond co-evolution by changing what has mostly been a mutually beneficial relationship between plants and humans into one where only the human desire is promoted. As a gardener and teacher, I know I will return to this book again. It forced me to think in both new and familiar ways about a variety of plants and animals and would attract me to look at the book if I saw it. Reading the description, I would want to read it and encourage others to do so as well.
always been the case, the weather was fantastic on Saturday afternoon. Stephanie Jenkins split the cow plop pot with NOFA and got $256. And Brian Metcalf won the bounteous CT basket. The auction brought in $667 for next year’s scholarship fund.

Sorry for the inconvenience of so many moved workshops. Hampshire told us too late in the game that they had taken three of our best rooms out of service for the weekend. Hopefully most of you found out where to go.

There were somewhere around 1200 attendees this year, with 129 kids, and 45 teens. NOFA state attendance was as follows: MA: 457, NY: 165, CT: 129, NH: 49, VT: 46, NJ: 30 and RI: 16 with handfuls of people from ME, PA, NM, VA, KY, CA, KY, OH, IA, WV and MD. Fourteen Arab farmers from Israel came and also presented an impromptu workshop on Saturday afternoon where there was a spirited discussion of the current situation over there. This interna-
tional connection is quite exciting. They left us with a beautiful painting of Canaan.

Here is a special call to all NOFA Chapters to find a way to make some money and enhance next year’s conference, which, by the way, will be August 9-11 at Hampshire. In the past NY did a quilt raffle, but has taken a break. CT and RI have done NOFA Nibbles, and presently CT does the basket raffle. A tractor or rototiller raffle, a special food booth, or other fundraising opportunity is all yours. Check in with us if you have an idea.

Would you like to design next year’s logo and theme and win an all expenses paid trip to the conference plus a T-shirt, or $150? Submit your graphic and logo to us by October 15 to gain consideration. We will decide on October 20 at our next meeting of the committee.

Get those evaluations to us by September 30. I am looking for honest feedback on presenters and workshops, thoughts on how to make the conference better next year, ideas for new features, and your offerings for workshops that you would like to run, or for someone you know to run. We pour over the many typewritten pages of collated evaluations in an attempt to make this event better each year.

Thanks for coming to the conference. I hope you all came home as refreshed and happy to be part of the NOFA community as I did. Julie Rawson, 411 Sheldon Road, Barre, MA 01005 (978) 355-2853 jackkitt@aol.com.

Michael Pollen’s new book (see reviews) raises the basic question of who is training and who is being trained here.
“Gardens of the Heart,” a CD Benefiting NOFA, to be Released This Fall

The Interstate Council of the Northeast Organic Farming Association (NOFA) announces an exciting collaboration with musician Margot Dilmaghani. “Gardens of the Heart,” a CD produced to benefit NOFA, will be released Fall, 2001. The CD features classical and ragtime solo piano music about Nature composed by women and performed by Margot Dilmaghani. Nostalgic, etudes and lyrical pieces about flowers, gardens, the Earth and sky are included. “Gardens of the Heart” is the second in a series of benefit CDs produced by Celebration Recordings at Clinton Recording Studios in New York City.

The CD “Celebration!” was released last year to benefit the Boston Women’s Health Book Collective for the publication of their book, Our Bodies Ourselves in Armenia. This CD features classical piano solos including preludes, etudes and baroque dances by Armenian women composers. The music was researched and recorded by Margot Dilmaghani, who holds a performance degree in harp from the Northwestern University School of Music. “Celebration!” can be heard on National Public Radio stations across the country and has raised enough money to sponsor the book’s next printing. Margot’s support of women’s issues grows out of her connection to environmental issues. She believes, “Common wisdom correlates the manner in which a country treats the Earth and the way they treat women. Both need rethinking.”

She says, “It’s a privilege to help NOFA’s advocacy work through ‘Gardens of the Heart’. NOFA is doing the most important environmental work possible. Staying engaged in the farming effort to provide us with pure food — the air, water and earth are all tended to in the most natural and loving way possible. One element affects the other, the interconnection of all the elements is inextricable, within an all too fragile webbing. Together, through this conscious, responsible, sustainable manner of living, we can broaden our vision and approach to life at every level; honor it, sift it, gentle it, keeping it sacred and whole.”

Visit Margot’s website at diamagahi.com/celebration (the second in a series of benefit CDs produced by Celebration Recordings at Clinton Recording Studios in New York City). This CD features classical piano music composed by women and performed by Margot Dilmaghani. Margot’s support of women’s issues grows out of her connection to environmental issues. She believes, “Common wisdom correlates the manner in which a country treats the Earth and the way they treat women. Both need rethinking.”

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NOFA Membership

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

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

Connecticut: Individual or Household: $35, Business/Institution: $50, Supporting: $100, Student (full time, supply name of institution) $20
Johan van Achterberg, 359 Silver Hill Rd., Easton, CT 06612-1134, (203) 261-2156 (home), vanachj@concentric.net

Massachusetts: Individual: $35, Family: $40, Low income: $20, Supporting: $100
Julie Rawson, 411 Sheldon Road, Barre, MA 01005, (978) 355-2853, jackkitt@aol.com

Elizabeth Obelenus, 4 Park St., Suite 208, Concord, NH 03301, (603) 224-5022, nofanh@quest-net.com

New Jersey: Individual: $35, family/organizational: $50, Business/Organization: $100, Low Income: $15* *does not include a subscription to The Natural Farmer
60 So. Main St., PO Box 886, Pennington, NJ 08534-0886, (609) 737-6848

New York: Student/Senior/Limited Income $15, Individual: $25, Family/Farm/Nonprofit Org. $35, Business/Institution: $50, Corporate Sponsor $500, Lifetime Sponsor $1000
Mayra Richter, NOFA-NY, PO Box 880, Cobleskill, NY 12043, voice: (518) 734-5495, fax: (518) 734-4641 nofanjcert@aol.com

Rhode Island: Student/Senior: $20, Individual: $25, Family: $35, Business: $50, Sustainer: $250, Lifetime: $1000, Basic: $15-25* does not include a subscription to The Natural Farmer
Erich V. Bremer, PO Box 886, Pennington, NJ 08834, (609) 737-6848, nofanjcert@aol.com

Vermont: Individual: $30, Farm/Family: $40, Business: $50, Sponsor: $100, Sustainer: $250, Lifetime: $1000, Basic: $15-25* does not include a subscription to The Natural Farmer
Kirsten Novak Bower, NOFA/VT, PO Box 697, Richmond, VT 05477, (802) 434-4122, nofavt@together.net

Northeast Interstate Organic Certification Committee
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Bill Hill, 51 John Read Road, West Redding, CT 06896 (203) 938-9403
Eric Sideman*, MOFGA, PO Box 170, Unity, ME 04988 (207) 568-4142
Judy Gillan, P O Box 31, Belchertown, MA 01007 (413) 232-8571
Ed McGrew, 140 Chestnut St, West Hatfield, MA 01088 (413) 247-9264
Vickie Smith*, NHDA, Bureau of Markets, Caller Box 3022, Concord, NH 03301 (603) 271-2685
Rick Fates, 145 Mountain Rd., Concord, NH 03301 (603) 224-4469

Calendar

Sunday, September 9: Epicurean Tomato Fete, Lenox, MA for info: 413-229-8316
Saturday, September 22 - Sunday, September 23: Exhibition & Sale of Heritage Breed Livestock, Pittsfield, MA for info: 413-443-8356
Friday, September 28 & Saturday, September 29: Effects of Horticultural Therapy on Physical, Emotional and Social Wellbeing conference, Daggett Farm, RI for info: 401-722-2038
Thursday, October 18 - Saturday, October 20: Raising the Barn: Tools for Farm and Food Education conference, Shelburne Farms, VT for info: 802-434-4122
Friday, October 26: Great Green Hype: Genetic Engineering and Agriculture lecture, Chestnut Ridge, NY for info: 845-356-3319
Sunday, November 18 - Tuesday, November 20: The Soul of Agriculture: New Movements in New England Food and Farming, Durham, NH, for info: El Williamson, (603) 862-5040, E-mail elw2@cisunix.unh.edu.
Friday, December 7 - Sunday, December 9: Northeast CSA Conference III, Claryville, NY for info: 717-264-4141 or info@csacenter.org
Wednesday, January 23 - Saturday, January 26, 2002: Ecological Farming Conference, Pacific Grove, CA for info: Heather Ware at 831-763-2111

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Frank Bunney, 1863 Preble Road, Preble, NY 13141 (607) 749-4614
Pat Kang, 840 Upper Front St., Binghamton, NY 13905 Dan Lawrence, RI Division of Agriculture, 235 Promenade St., Providence, RI 02908 (401) 222-2781, ext. 4516, dallawrence@dem.state.ri.us Polly Hutchison, Casey Farm, 2325 Boston Neck Rd., Saunderstown, RI 02874 (401) 245-1030 Emid Woumacott, 478 Salvas Rd., Huntington, VT 05462 (802) 434-4455 elila@together.net
Tim Sanford, RR1, Box 224A South Royalton, VT (802) 763-7981

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OrganiCare Landscaper Jon Paula sprays compost tea onto a lawn. His company’s trucks start out each morning with a variety of liquid compost and other materials, which can be mixed and applied at one time through a series of connecting valves and hoses on the truck.

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

**Organic Landscaping**