The No-Work Garden  ...well, less-work, anyhow

Y ears ago, when I decided that I needed a larger garden, I set out to dig up the sunburned and thinly-covering grass in the only sunny spot in my small yard. With visions of perennials dancing in my head, but very little knowledge, I set out with a shovel.

Around the edges of our lot, gardens must have grown through the seventy years that the house had stood, as the soil was loose and loamy. However, it was obvious that no one had planted in the central area because, with the first thrust of the shovel, I hit the builder's rubble heap. By the end of the day I had made a three-foot-deep pit. What soil remained was clay — chunky and brassy orange. If I had added water, I could have made pottery right there.

It seemed sensible to loosen up the soil by adding sand. The previous residents had a mammoth sandbox for their single child and we had stored the sand in garbage cans to spread after ice storms. I dumped wheelbarrows-worth of sand into the pit. I was told later that clay and sand is the formula for cement; without the compost, I would have ended with an in-ground pool!
How to Dig a Garden Bed continued.

I mixed together the clay, sand, and compost — and the resulting soil felt like something I wanted to put a trowel into. Since then, in that bed I have grown hardy geraniums, daylilies, flax, pink, calamintha, catanache, campanula, Siberian iris, Oriental poppies, Labrador violets, even lavender and bulbs. By blind luck I had found the correct formula.

Dig Safe. "Double dig" means to dig the soil to the depth of two shovel-heads, thereby aerating it. Fertilizer, compost, peat moss, manure — whatever suits the type of plants — is added. This technique was used by master British gardeners before the first World War, when labor was plentiful and cheap. In my effort to excavate the rubble, I had outdone them — I had triple dug!

I was lucky that I didn't hit any pipes or gas lines. It is vital to call Dig Safe at 888-DIG-SAFE (344-7233) before starting digging projects. Dig Safe, a free service, notifies utility companies of proposed excavation projects. The companies go to the work area and mark the location of underground features.

The no-dig method. Tilling the soil causes two problems. It adds oxygen, which burns up the nutrients before the plants get to them. And, it brings weed seeds up to the light. Soil is always full of weed seeds but it takes light to cause them to germinate. If it seems that the more you weed, the more weeds you find, this is why!

Another way to make a garden bed might be called the no-dig method. If I were going to make a new bed today, I would spread five to ten layers of newspaper on top of the grass or weeds, holding down the newspaper (newspapers today are printed with lead-free ink) with several inches of compost, preferably, or mulch. To plant, I would cut an X through the layers and settle the new plants right in.

The compost on top provides nutrients that seep downwards with water. The compost may be used as a mulch by itself; or wood chips can neatly finish off the bed. Mulch keeps the soil moist and cool in hot weather and degrades to add more nutrition. Use soaker or drip hoses to apply water only where needed. Keep the soil aerated by not stepping on it. Add stepping stones for weeding purposes and otherwise stay on the paths.

Keep in mind the underlying soil when deciding which plants to put in. You can assume the soil is good over a relatively decent lawn since grass does poorly in nutrient-deficient soil. The newspaper layers kill the grass by keeping out the sunlight and the decomposed grass and newspapers add nutrients to the soil.

If the soil is sandy or stony, start with plants that enjoy nutrient-poor soil. There are many of them: Artemesia, yarrow (Achillea), false indigo (Baptisia), Coreopsis, and lavender are but a few. If the soil is clay, it is nutrient-rich and compost and mulch will improve the texture. Plants that do well in clay soils include black-eyed Susan (Rudbeckia), Echinacea, Liatris, and goldenrod (Solidago).

Adding compost and mulch to sandy, stony, and clayey soils on a yearly basis may improve your soil to the point that you can dig in with your bare hands — I'm not promising, but it's possible!! You may have to change your plantings to those that like nutrient-rich soil! The Well-Tended Perennial Garden by Tracy DiSabato-Aust is a lovely reference book and lists plants by their requirements.
How to dig a garden bed continued.

Gardening without digging is easier. Try it! You’ll like it! 😊

Fran Gustman is editor of The Ecological Landscaper and HortResources Newsletter (for New England horticultural professionals and amateur devotees); a board member of the Brighton Garden and Horticultural Society; and a designer specializing in small and urban gardens. Contact her at fgustmaneditor@juno.com.

More on gardening without digging in Lee Reich’s “Weedless Gardening,” p. 4.

Jobs. The Cambridge Climate Calendar includes a large selection of job openings of environmental interest. To subscribe, email CambClimCal-subscribe@topica.com. To read on-line, go to http://www.tufts.edu/tci/Calendar.html. Click on Resources at the left.

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A garden, where one may enter in and forget the whole world, cannot be made in a week, nor a month, nor a year; it must be planned for, waited for and loved into being. — Chinese Proverb

Weedless Gardening
Lee Reich

There was a time that weeds made me nervous whenever I went out to my garden — by their absence! I feared that something was wrong with my soil. I had taken deliberate measures to create this condition, but it was initially hard to believe that they had worked so well.

There are four components, described briefly below and detailed in my book, Weedless Gardening (Timber Press, 2001) to maintaining this “weedless” condition. These components integrate together nicely and provide benefits to the health of the soil and the plants beyond weed control.

1) Minimize soil disruption to preserve the soil’s natural layering. I never turn my soil over, either by hand or rototiller. Buried within every soil are countless weed seeds, dormant but waiting to be awakened by exposure to light or air. Not stirring the soil keeps them asleep. Even when setting transplants, shrubs, and trees in the ground, I take care to minimize soil disturbance.

Maintaining the natural integrity of the soil brings incidental benefits. Water is better utilized because channels created by freezing and thawing, earthworms, and old roots are left intact; excess water can drain away while capillary water can be held and drawn where needed in all directions — even upwards. Not having to turn the soil allows me to plant earlier in the spring because I don’t have to wait for the soil to dry enough to till.

Not turning the soil preserves soil organic matter, which is too rapidly burned up when the ground is churned into a frappé of soil and air. Organic matter is valued for the nutrients it releases to plants, for nutrients already in the soil that are rendered more available, and for its role in fending off pests. Left on top of the ground, organic materials are able to protect the surface from pelting rain and searing summer sun. Furthermore, fertilizers and organic materials do most good near the surface, where plant roots naturally proliferate.

Horticulturist Lee Reich will be a speaker at the ELA Winter Conference. For more information, see p. 12.

2) Avoid soil compaction by keeping feet, wheelbarrows, garden carts, and tractors off planted areas. Soils are tilled mostly for aeration, but deliberate aeration is unnecessary with permanently designated, separate areas for plants and for traffic.

The design of trafficked areas, whether paths or stepping stones, varies with the design of the garden and the kind of traffic expected. Planted areas in my vegetable garden consist of rectangular beds. Planting beds in my flower garden are more free form. Groundcovers and the islands of mulch around my trees are rarely trod upon, so neither needs separately designated areas.

Continued
3) Protect the soil surface with a weed-free, usually organic, covering, replenished as needed. It only takes a thin mulch to smother small weed seedlings. Benefits of organic mulches beyond weed control include modulating soil temperature, preventing erosion by wind and water, feeding the soil, and replenishing soil organic matter. The mulch of choice depends on the look desired, the plants, the soil, and what's available.

Poorer soil and more demanding plants need the most nourishing mulches. In my vegetable garden I lay down an inch or more of nutrient-rich compost over all the beds. In flowerbeds, buckwheat hulls are a mulch that provides adequate nourishment and is attractive.

On paths I put wood chips, gravel, straw, or some other lean material free of weed seeds. A living option for paths is lawn grass, which can be planted or, if present, simply left in place. Quirkier path coverings are old carpet pads (horse hair is biodegradable) or wooden planks.

4) Use drip irrigation. Drip irrigation pinpoints the water to where it is needed instead of wastefully wetting paths or weeds in unplanted areas. This method of watering, besides lessening weed problems, can be easily automated and uses about sixty percent less water than sprinkling.

**Readying the ground for a first-time planting.** One appeal of "weedless gardening" is the ease and speed with which I can get a new garden started. And, it can be done at any time of year.

I begin site preparation by mowing existing vegetation with a scythe or power mower. To starve roots that will attempt to sprout new leaves, I next lay down a impenetrable blanket of paper. The paper eventually decomposes, but is needed for only the short while it takes to kill existing vegetation. I use about four sheets of newspaper or a single layer of landscape barrier paper or building paper, adjusting the number of layers according to how vigorously I expect vegetation to re-sprout. A lush hayfield will need more layers; a weak patch of lawn will quickly expire beneath fewer (but there's no harm in using four sheets anyway). Most importantly, overlap the edges of the paper so sprouts cannot wend their way up to the light. Wetting the paper as it is put down keeps it in place and helps roots from the planting grow down through it into the soil.

Next, the paper is covered with a mulch. Organic materials, whether used to cover planting or walking areas, should be one- to three-inches deep — for seeds or small transplants that is deep.
Weedless gardening continued.

enough to plant in without making holes in the paper. For tree and shrub transplants, make an “X” in the paper. In addition to hiding the paper and holding it down, the mulch keeps the paper moist and starts it on the road to decomposition.

Using different materials in beds and paths makes it obvious where to walk and can lend some artistry to the garden.

Maintenance. Maintaining my "weedless" garden is straightforward.

Mulch. Once a year I replenish mulch where old mulch has decomposed.

Fertilizer. Organic mulches provide a smorgasbord of nutrients, so the only addition needed may be material high in nitrogen, for example, where the soil is poor or in a vegetable or formal flower garden; I use soybean meal once a year at two pounds per hundred square feet or an inch or more of compost.

Clean-up. When clearing the garden, I continue to minimize soil disturbance. Spent plants are jerked out of the soil or given a quick twist to break the main roots, leaving the finer roots intact. For plants like corn, I sever the large roots with a knife before pulling up the plant.

Weeding. Also included in my garden maintenance is — dare I say the word? — weeding, and, again, I minimize soil disturbance. Even in a "weedless" garden, regular weeding is important. The usual method of disposing of weeds in a vegetable garden is to chop the tops back — which then regrow. What few weeds I find, however, I yank out by the roots. Weeds having long taproots, such as dandelion or burdock, are coaxed out with a trowel thrust alongside the taproot. I take off the tops of whole colonies of small weeds with my "winged weeder," rather than pulling them out one at a time; any hoe with a sharp blade can be slid a fraction of an inch below the soil surface to do the job. I pay special attention to the garden's edges where weeds and grasses constantly attempt to slither in.

Young weeds are easiest to remove and also have yet to make seeds or start spreading underground. Time spent weeding in a "weedless" garden is minimal and even pleasant.


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Over forty years ago, when we were young and foolish, my husband Richard and I decided to start a weekend vegetable garden. The Macnairs had property on the mid-coast of Maine and we went there every weekend from Cambridge, Massachusetts. We were told by our elders that a weekend garden couldn't be done and that naturally made us persevere.

To help us toward our goal, a friend gave us Ruth Stout's book How to Have a Green Thumb Without an Aching Back [a review of this book follows]. We marked out 30' x 60' in a blueberry and weed patch with heavy clay soil. All summer we hauled in sawdust and seaweed. In the early fall, we obtained two loads of manure. Then we had the manure spread and the area rotovated (deeply rototilled) to chew up the weeds, mix in the additives, and turn up the rocks. Next we added hay to deprive weeds of sunlight and to conserve moisture.

The next spring, we had wild roses, sensitive fern, and goldenrod growing through the hay. However, they were easily pulled up.

We are still gardening on the same piece of land. We had such great success, that we soon increased the plot to 45' x 90', the size it is today. Every year, we apply hay in the fall. We continue to add compost, although the soil is now rich, loamy, and friable. There is no need for any other fertilizer. At first we probably couldn't have plowed because the area was quite wet and now, with the better drainage, it is much so much easier to plant that we have no need to plow. We fill a large freezer every year with our veggies and fruits. Without what Ruth Stout calls her "no-work" method, we could never have handled even a small garden on weekends.

Using hay. Use spoiled hay, not feed hay; that is, hay that is no longer suitable for feeding animals. It was very expensive this year, $2-$5 per bale, because of the showery weather. You can get it from farmers who bale hay for sale and in Maine many people use hay around their homes during the winter for insulation and are willing to give it away in the spring.

Loose hay should be spread 8"-12" deep; tight flakes from hay bales may be piled only about 6" deep. More hay should be added as it rots. Ideally weed seeds will be so shaded that they will not germinate. If there is a lot of rain, the hay mulch will decompose more quickly and the grass seed in the hay will grow. Just add more hay to smother the grass.

When we began using the year-round hay mulch, we used 200 bales of hay a year. Now that even spoiled hay is expensive, we keep it down to 100 bales by spreading it thinner and spreading fall leaves first. We also cut grass from our field to spread on the garden.

Planting in hay. Ruth Stout pulled the hay aside and planted directly into the soil — but she already had a very fertile garden when she began her experiment. In our case, we pull the hay aside to plant peas, beans, or corn, but also cover the seeds with compost. To plant squash or cucumbers, we haul compost to the garden and poke the seeds into the compost hills. When putting in started plants, such as tomatoes, we dig a hole, add a shovelful of compost, plant, and pull the hay back around.

We are aggressive composters, utilizing manures, seaweed, and shredded leaves in addition to garden and kitchen waste (minus meats and fat). But those who don't like to be bothered with a compost pile can simply tuck their wastes under the hay. A garden covered with hay is just a huge compost pile, anyway.

Vegetables. We grow beets, carrots, chard, peas, snow peas, bush beans, Kentucky Wonder pole beans, green bell peppers, basil, parsley, cucumbers, zucchini, garlic, red and sweet Spanish onions, Stuttgart onions, sugar pumpkins, buttercup and hubbard squash, and several varieties of tomatoes. We are not around to pinch our tomato plants properly, so we don't stake them. They develop into very strong plants that don't get blown down by wind, and if the fruit touches the hay it does not rot as it would on soil. We end up with so many tomatoes from six or eight plants that, after feeding family and friends, canning, and giving them away, we also make dozens of jars of green tomato mincemeat and Topsfield relish, a famous recipe for green tomatoes [see sidebar], for friends and for fund raisers.

Testimonial to the Year-Round-Hay-Mulched Garden
Wanda Macnair

When one tugs at a single thing in nature, he finds it attached to the rest of the world. —John Muir

Continued
recipes

Unlike a cake where the chemistry is very important, some of the amounts below may be altered slightly. We hope you enjoy the process as well as the results. The house will be filled with the odor of the spices.

**Topsfield Relish**

Grind coarsely and measure after grinding 3 pints ripe tomatoes, 3 pints green tomatoes and 1 quart onions. Grind and add 1 bunch celery, 1 small cabbage and 4 red sweet peppers. Add 1/2 cup salt (non-iodized), mix well, and let sit overnight.

Drain well and add 3 scant pints vinegar, 3 pints sugar, 1/2 cup mustard seed, 1 teaspoon cinnamon and 1/2 teaspoon cloves. Boil 30 minutes, stirring often. Pour into glass jars that have been heated with boiling water and seal. Because of the vinegar and the sugar, this does not need refrigeration after opening.

**Green Tomato Mincemeat**

Chop and drain 3 or 4 pounds of green tomatoes and add an equal amount of water. Do not use any tomatoes that have begun to turn pink. Scald by bringing to a boil, then draining, and scalding again. Add 1 cup raisins, 1 cup currants, 1 pound citron and/or other candied fruit peels and put through a coarse food chopper. Add 1 bunch celery, 1 small cabbage and 4 red sweet peppers. Add 1/2 cup salt (non-iodized), mix well, and let sit overnight.

Drain well and add 3 scant pints vinegar, 3 pints sugar, 1/2 cup mustard seed, 1 teaspoon cinnamon and 1/2 teaspoon cloves. Boil 30 minutes, stirring often. Pour into glass jars that have been heated with boiling water and seal. Because of the vinegar and the sugar, this does not need refrigeration after opening.
**No-Work Gardening**

Betty Mackey

Ruth Stout is the pioneer of the mulch method of gardening. She wrote several books on the topic, briefly describing the technique and then telling stories about her experiences and other's. The books are out of print but most are available used at low prices. —ed.


There is no one word to describe my all-time favorite garden book, *How to Have a Green Thumb Without an Aching Back*, written by the inimitable Ruth Stout in 1952, and published in many editions and printings. Ruth Stout is the sister of famous mystery writer Rex Stout but these days her books may well outsell his. Unselfconsciously brimming with energy, humor, and charm, she happily tells how she grows food and flowers on a 55-acre farm, first working herself practically into the hospital with her energetic digging and weeding, and later inventing the no-work, incredibly rewarding mulching method. But the method is so easy that ninety percent of the book is story telling.

She opens with mutterings at what other garden writers have written, which she suspect have nothing to do with reality. "My ambition," she says, "is to write this book without a single statement which can be muttered at. I will try to accomplish this by relating my own experiences, letting the reader do the conclusion-drawing. This does not mean, however, that my mind isn't crowded with opinions and convictions. It is. For instance, eleven years ago I put into practice a revolutionary method of gardening, and if I were put in charge of the world I would make it compulsory for every gardener to give it a three-year trial. After three years I don't think anyone would go back to the old, cumbersome procedure. If someone did, if someone deliberately chose to work ten times as long and hard as he needed, chose to spend more money and have more headaches than necessary with less satisfactory results, I wouldn't interfere. I doubt if there would be enough of them in the whole world to fill a medium sized mental institution."

Born in Kansas, she is a confirmed New Yorker when she marries Fred at age 45, in June of 1929. They are weekending with friends in then-rural Connecticut when, on the first day of their trip, by 2:00 P.M., they have agreed to buy a huge, run-down farm. She becomes so busy taking care of it that she takes no time to acquire knowledge first. She has a lot of fun recounting her many early mistakes and few unexpected successes. Fourteen years later, her results are still mixed but now she talks only of gardening. She says, "As Fred put it, Ruth may not have a green thumb, but she has a green tongue." But then comes the change to no-dig, all-over mulch gardening, covering the garden with a 6-8-inch layer of spoiled hay. She says, "When the farmers around here take leave of you their parting words are almost never 'Goodbye' or 'So Long,' but 'Take it easy.' Several years passed before I learned to follow this sensible advice; I hope you will be more open to it than I was." Now a confirmed mulcher, she crows, "I wouldn't be afraid to broadcast dandelion seeds all over my garden. The poor things would die of old age before they had a chance to reproduce their kind."

Year by year her ground becomes richer and fluffier, and Stout's vegetables are sensational. "I simply spread mulch where I want the compost to be eventually. It rots and becomes rich dirt, with the valuable by-products of keeping down weeds, keeping the earth soft, holding moisture and eliminating plowing and spading, hoeing and cultivating."

Well, the mulch method is no longer a radical breakthrough, but Ruth Stout's book is just as fresh and amazing as ever, seamlessly bringing her friends, family, neighbors, and rural surroundings into the reader's own interior life, where they amiably stay for a very long time.

Copyright 1998 by Betty Mackey

Betty Mackey is a garden writer, editor, and independent publisher. In early February, 2005, she will publish *Creating and Planting Alpine Gardens*, by Rex Murfitt. For more information go to www.mackeybooks.com or write to P. O. Box 475, Wayne, PA 19087 or bbmackey@prodigy.net.

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If "heartache" sounds exaggerated then surely you have never gone to your garden one rare morning in June to find that the frost, without any perceptible motive, any hope of personal gain, has quietly killed your strawberry blossoms, tomatoes, lima and green beans, corn, squash, cucumbers.

A brilliant sun is now smiling at this disaster with an insensitive cheerfulness as out of place as a funny story would be if someone you loved had just died. —Ruth Stout 1884-1980
the soil. In addition, brush piles placed in gullies reduce erosion.

It's important to construct brush piles in or close to permanent cover, such as fencerows, heavy timber or dense grasslands. A brush pile located in a closely grazed pasture is of little value. In this situation, small animals are exposed to predators while traveling to and from the brush pile.

The construction of simple brush piles will improve wildlife habitat on your property. If proper construction and location are considered, brush piles provide essential cover for wildlife survival and reproduction. —December 13, 2004, Wind-Star Wildlife Garden Weekly e-Magazine, wildlife@windstar.org

Snags and Perches

A "snag" is a dead or dying tree. There are two kinds of snags. A hard snag is a standing dead, or partially dead, tree with some larger limbs remaining and sound wood. A soft snag is a standing dead tree in an advanced stage of decomposition with few, if any, limbs and advanced heart rot. Generally, the larger the snag, the greater its value for wildlife.

To many people, a snag is an eyesore or firewood waiting to be cut. To wildlife, such as flickers and woodpeckers, a snag is home. Snags are used for nesting, perching and territorial establishment. The belted kingfisher and green-backed heron use branches hanging over water as perches from which they can spot fish. Snags also serve as perches from which birds fly out to catch insects. Insect larvae is often found under the bark and in the soft wood of snags.

Some people attract wildlife by cutting down a soft snag and setting it up in their yard where it can be watched from the house. Snags or tree branch perches can be provided over backyard ponds, on the edge of hayfields or at bird feeders. Logs can be anchored to concrete blocks in small ponds to provide secure loafing sites for ducks and turtles.

In some cases, snags in advanced stages of decay may pose a safety threat. In these instances it would be best to remove the snag and use alternative methods to provide food and cover. —Leaf-Chronicle, http://www.theleafchronicle.com

During the winter, keep bird seed dry with a dome feeder. Supplement seeds with suet.
American Birds Disappear

Compiled by Audubon Scientist Greg Butcher, the "State of the Birds" analysis has prompted Audubon to urge the strengthening of existing environmental protections and stricter enforcement. The survey of the status of 654 bird species native to the continental United States shows that America's birds are in trouble. "Like the canary in the coal mine warning the miner of danger ahead, birds are an indicator of environmental and human health," said Audubon President John Flicker. "Birds signal that we are at risk next."

Statistically significant declines were recorded for bird species in five habitat types: grasslands, shrublands, forests, wetlands and urban areas. In decline are 70% of U.S. grassland bird species, 36% of shrubland bird species, 25% of forest bird species, 23% of bird species in urban areas, and 13% of wetland bird species. Bird species are disappearing due to loss of native grasslands, overgrazing of grassland and shrubland, development of wetlands, bad forest management, invasive species, pollution and poor land use decisions.

Keeping birds, and their home habitats, in good condition is good conservation policy and good business, Audubon says. According to the U.S. Forest Service, 69 million Americans, one-third of all adults in this country, call themselves birdwatchers. The U.S. Fish & Wildlife Service notes that they contribute at least $32 billion in retail sales, $85 billion in overall economic output, and $13 billion in state and federal taxes, creating 863,406 jobs. "Birds also contribute to the bottom line in more subtle ways, providing free pest and weed control, distributing seeds, and pollinating flowers and crops," said Flicker. "We simply cannot afford to ignore the state of the birds." —Environmental News Service, http://www.ens.lycos.com, October 25, 2004

Further analysis of the “State of the Birds” report may be found on the Audubon web site at http://www.audubon.org /bird/stateofthebirds.

The first established Audubon group was the Massachusetts Audubon Society, in 1896. Today, Mass Audubon has 68,000 members and is one of 11 loosely linked state Audubon societies. State groups are independent of the National Audubon Society, which has 570,000 members in 40 states.
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SCHEDULE OVERVIEW
Friday, March 4
8:00 AM Registration & Continental Breakfast
9:30 AM–12:30 PM Morning Seminars
12:30 PM Lunch & Networking
2–5 PM Afternoon Seminars
5:30 PM Reception in Exhibit Hall

Saturday, March 5
8:00 AM Registration & Continental Breakfast
8:30 AM–12:00 PM Seminars
12:00–1:30 PM Lunch and networking
1:30 PM Eco-Marketplace closes
1:30–3:00 PM Afternoon Seminars

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Friday, March 4
8-9 AM  Registration: Continental Breakfast in Exhibit Hall
9:30 AM-5:30 PM  Demonstrations and Mini Lectures in Exhibit Hall
9-10:30 AM  • Managing Stressed Lawns, JEFF FRANK, The Nature Lyceum
• Natural Biological Control of Insect Pests, DR. MICHAEL RAUPP, University of Maryland
• Creating Wildlife Habitat in the Landscape, PETER PICONI, CT DEP
10:30-11:15 AM  NO SESSION
11:15 AM-12:30 PM  • Integrating Natural Landscapes into the Managed Landscape, KEITH WILEY, Wildside Plants Nursery
• Invasive Plant Control and Environmental Restoration, JOSH ELLSWORTH, Ellsworth Land Management
• Maintaining a Dynamic Biology in the Landscape, DR. WILLIAM TORELLO, UMass; EcoOrganics
12:30-2 PM  LUNCH AND DESSERT IN EXHIBIT HALL
2-3:30 PM  • Quantum Physics and Horticulture, JEFF FRANK, The Nature Lyceum
• The Gardener’s Calendar, TESS MCDONOUGH, Horticulturist
• Thinking Ahead of the Machine, JOHN W. DEERING, Earth Management: the Team Concept
3:30-4 PM  NO SESSION
4-5 PM  • Identifying Weeds in the Managed Landscape, RANDY PROSTAK, UMass Extension
• New Trees for New England, DR. BRIAN MAYNARD, University of Rhode Island
• Maintaining a Dynamic Biology in the Landscape, DR. WILLIAM TORELLO, UMass; EcoOrganics
5:50-6:30 PM  MARKETPLACE RECEPTION: Food/Cash Wine & Beer Bar

Saturday, March 5
8-9 AM  Registration: Continental Breakfast in Exhibit Hall
9:30-11:30 AM  Demonstrations and Mini Lectures in Exhibit Hall
8:30-10 AM  • Rodent Damage in the Landscape, DR. GWILYN S. JONES, Northeastern University
• Simple Steps Toward Organic Lawn Care, CHIP OSBORNE and PAT BECKETT
• Fearless Pruning, LEE REICH, Gardener and Author
10-10:45 AM  NO SESSION
10:45 AM-12 PM  • Native Grasses, LAUREN BROWN, Author
• Creating Winning Perennial Combinations Using Color and Texture, MARIA VON BRINCKEN, Maria von Brincken Landscape Design
• Planning Your Livable Landscape, BRITT ECKHARDT-SLATTERY, US Fisheries & Wildlife Service
12:1 PM  LUNCH AND DESSERT IN EXHIBIT HALL
1:30 PM  ECO-MARKETPLACE CLOSES
1:30-3 PM  • White Grubs in Turfgrass: Biology and Management, DR. PATRICIA VITTUM
• Soils and Soil Ecology, JOSE AMADOR, U of Rhode Island and PAUL WAGNER, Soil Foodweb
• The Weedless Garden, LEE REICH, Gardener and Author
3 PM  CONFERENCE ENDS

In 2004, The Winter Conference was attended by 350 educated and enthusiastic professionals and community members looking at ecological products and services

WANTED: EXHIBITORS
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Ecological Landscaping Association
Winter Conference
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Our annual Winter Conference & Marketplace is a two-day event that promotes awareness of ecologically sound landscaping methods, materials, and practices, with three tracks of speakers, demos, and a marketplace full of products and services!

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Chapter 1 of our Manual, Guide to Healthy Landscapes, is on sale: "From the Ground Up: Site and Soil Preparation." Chapter 2, "Site Analysis and Design" is in production. Future chapters will include lawns and alternatives, plant care, Integrated Pest Management, native plants, sustainable practices, gardens as habitat/food!

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*In collaboration with the Arnold Arboretum of Harvard University

ELA-CA news
The Elements of Ecological Landscaping
Susan Wyche

The day was unseasonably cold for the Monterey Bay, but that didn’t discourage a crowd from gathering for the first event of the new California Working Group of the Ecological Landscaping Association. "From the Ground Up: Elements of Ecological Landscaping," a full-day conference held November 20 at Cabrillo College, covered a few of the many topics that landscapers, designers, horticulturists, and homeowners need to know about in order to shift successfully to ecological landscaping.

To help native plants thrive in a garden setting, first speaker Kathryn Mathewson had some important advice: pay attention to the soil. In many sites, native soil structure has been destroyed by construction and traditional gardening methods and thus needs to be significantly amended before making the switch to natives.

ELA Members $25. Non-Members $35
*Co-sponsored by the Greenscapes Program (a regional effort by the North and South Rivers Watershed Association, Massachusetts Bays Program, and municipalities of the South Shore of Massachusetts), which promotes landscapes that protect water and require less irrigation, chemicals, and time to maintain: www.greenscapes.org

Installation and Maintenance.* Saturday, April 2, 2005, 9AM – Noon. Arnold Arboretum, Jamaica Plain, MA. Tom Ward, Co-Director of Living Collection/Greenhouse Manager, Arnold Arboretum; Deborah Swanson, Horticultural Educator, University of Massachusetts Extension, Plymouth County; Rolf Briggs, Consulting Arborist/Owner, Tree Specialists, Inc., Holliston, MA. Our three speakers bring a wealth of expertise to the topic of proper planting and aftercare.

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Phytophthora ramorum. The Connecticut Agricultural Experiment Station and USDA announced that plant shipments infected with Phytophthora ramorum (the sudden oak death pathogen) arrived in Connecticut this spring. The source was Hines Nurseries’ Forest Grove, Oregon, facility. Infected plants were mainly Rhododendron ‘Boursault’ and ‘Album’, Pieris spp. and azaleas. Officials are trying to trace plants, but many were sold for cash to homeowners. Nurseries with infected materials are asked to quarantine or incinerate the materials. Hines announced in September that the Oregon site was P. ramorum positive and halted sales of plants that could carry the disease. Some officials called for bar coding every plant sold in Connecticut to improve tracking. — Weekly NMPRO e-mail for Dec. 14, 2004


Chicago Botanic Garden plant trials. Detailed information from the Chicago Botanic Garden plant trials is now available. Growers can use the site to look up data such as flowering dates and diseases or winter injuries observed. The botanic garden also posts its overall ratings of plants and the dates the plants were trialed. A search device can find information on all the highly rated plants the garden has trialed in recent years. — Weekly NMPRO e-mail for Dec. 14, 2004

Oiling tool handles. Johnny’s Seeds prefers to sell tools with oiled handles because they are more comfortable to hold and don’t make blisters like shellacked handles. Once a year is enough to renew the oil. However, ordinary hardware store linseed oil usually contains chemicals, such as cobalt, which isn’t high on the list of substances you want your skin to absorb! Johnny’s sells Tried and True Oil, which is free of the chemicals. http://www.johnnyseeds.com/catalog/9375-cm2.html — Rob Johnston, rjohnston112004@johnnyseeds.com

Continued
The winter moth (Operophtera brumata) is an introduced species that has been wreaking havoc in southeastern Massachusetts, including Cape Cod, for the last three or four years. Winter moths hatch as early as late March. The larvae tunnels into both fruit and foliar buds, especially of fruit trees (apple, blueberry, cherries, and others), but fruit buds are preferred. Once a bud has been devoured from within, the caterpillar will migrate to other buds and repeat the process.

When leaf buds open, the small caterpillars can be found within the tight clusters of new leaves. During cool springs when leaf buds open late, the winter moth caterpillar can severely damage the leaves. Winter moth caterpillars often leave the clusters to become free feeders at night. They may also "balloon" to plants beneath infested trees to feed on herbaceous perennials. Winter moth caterpillars are often found in association with fall and spring cankerworms, which look similar and have similar feeding patterns.

Heavily defoliated trees will be severely stressed. They will put out a second flush of growth in order to survive. Water is critical at that time. Fertilizer application is not recommended for trees that have been defoliated. — UMass Extension, http://www.umassgreeninfo.org/fact_sheets/defoliators/winter_moth.pdf

Children and pesticides. Pesticides have been linked to neurological damage in children. On November 10, 2004, Washington Post staff writer Juliet Eilperin reported that the Environmental Protection Agency (EPA) had suspended a study aimed at exploring how infants and toddlers absorb pesticides and other household chemicals.

The Children's Environmental Exposure Research Study was designed as a three-year investigation to look at children's contact with commercial pesticides. EPA expanded this to include chemicals commonly found around the home and approached the American Chemistry Council (ACC), an industry lobby group representing 135 chemical manufacturers, which offered an additional $2 million for the study. The study was to have included chemicals found in everything from furniture coatings to cosmetics.

The Environmental Working Group, a Washington-based non-profit body, believes that funding by the ACC represents a clear conflict of interest. Jane Houlihan, EWG's vice-president for research, said, "The EPA's research budget is over $500 million a year, so you have to ask why the agency is relying on the lobbying arm of its own regulated industries for such a small sum of money."

The project would have given each low-income family of 60 children in Duval County, Florida, $970, a camcorder, and children's clothing, in exchange for using pesticides in their homes. Jeff Ruch, executive director of Public Employees for Environmental Responsibility, said, "Paying poor parents to dose their babies with commercial poisons to measure their exposure is just plain wrong."

A panel is set to reassess the project next spring.

Four dry logs have in them all the circumstances necessary to a conversation for 4 or 5 hours.

Therefore, let us love winter, for it is the spring of genius.

—Pietro Aretino

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**AD RATES**

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The Ecological Landscaper is published quarterly. For an ad to appear in a specific issue, it must arrive by November 15, February 15, May 15, and August 15, two (2) months prior to the publication date of the respective issue. Ads received after these deadlines will appear in the following issue. If an ad is taken out for a four-issue run and canceled before the end of the run, we will issue a pro-rated refund, less a 25% service fee. Cancellations must occur by deadlines above to take effect for that issue. Any change made after the first run to a four-issue-run ad will void the four-run discount; new copy and additional funds are required before running the revised ad. The advertiser is responsible for final content. ELA reserves the right to refuse an ad for any reason. ELA makes no claims, warranties, or other declarations as to the effectiveness, reliability, or results from the use of products, services, or procedures described in any ad. There are currently no tie-ins to advertising in ELA publications or venues. Send ad copy and payments to: ELA, Attn.: Newsletter Ad, 60 Thoreau St., #252, Concord, MA 01742; 617-436-5838. Make checks payable to Ecological Landscaping Association.
Climate changes. U.S. Climate Prediction Center is forecasting a season of change for January through March. Almost the entire Southern half of the U.S. should see above-average rainfall, very good news for the drought-ridden Southwest. Below-average rainfall is expected from the Midwest to New England and in the Northwest. The west, from North Dakota to New Mexico, will have above-average temperatures. The Southeast, from central Texas to southern Virginia, will see below-average temperatures. —The Weekly Dirt, for 4 Jan., 2005

Forestry. The Urban Horticulture Institute and Community Forestry have pioneering ecological management to help trees thrive under tough conditions. The sites are at: http://www.hort.cornell.edu/uhi/ and http://www.hort.cornell.edu/commfor/.

Diazinon. Dec. 31, 2004, was the stop-sale date for residential use of the insecticide diazinon. Retailers and formulators have until March 31, 2005, to sell unopened outdoor diazinon residential products back to manufacturers. Consumers may use diazinon residential products they have in their possession. —The Weekly Dirt, for 26 Oct., 2004

Pine shoot beetle. Pine products and nursery stock crossing the border from Canada to the U.S. must meet new documentation, treatment, and handling requirements. Pine shoot beetle infests portions of the northeastern U.S. and is a vector for many pine tree diseases. —Weekly NMPRO e-mail for Oct. 26, 2004

Mustard. USDA’s Agricultural Research Service scientists are studying the effectiveness of mustard (Brassica spp.) as a biofumigant to control weeds and other pests. In greenhouse studies on potted irises, a fumigant made of mustard extracts reduced weeds and nematode populations by 70-80 percent without harming crops. Scientists attribute the success of the fumigant to isothiocyanates, chemicals produced by mustard plants that make surrounding soil toxic to pests and competing plants. —Weekly NMPRO e-mail for Oct. 26, 2004

Emerald ash borer. Ohio State and Michigan State University researchers found that emerald ash borer preferentially attacks North American native green ash, Fraxinus pennsylvanica. Studies indicate that Manchurian ash, F. mandshurica, is attacked to a lesser degree and shows much less dieback. —Weekly NMPRO e-mail for Nov. 09, 2004

The Iowa Department of Natural Resources said infestations of emerald ash borer are being found every week in many areas of the eastern U.S. Iowa nurseries and the Iowa Nursery & Landscape Association were asked to participate in a voluntary moratorium on importing ash nursery stock from east of the Mississippi River. —Weekly NMPRO e-mail for May 11, 2004

As a result of trees lost from emerald ash borer, Michigan State University published a list of ash alternatives. Suggestions are: Acer buergerianum (trident maple), Celtis occidentalis (hackberry), Gymnocladus dioica (Kentucky coffee tree), Nyssa sylvatica (pepperidge) and Quercus imbricaria (shingle oak). —Weekly NMPRO e-mail for Oct. 05, 2004

Dogwood. University of Florida says dogwood may survive anthracnose better where areas have been previously burned. Further research may lead to controlled burns. It is estimated that the disease has killed 90% of the native East Coast Cornus florida populations since the late 1970s. http://extlab1.entnem.ufl.edu/PestAlert/dogwood.htm —Weekly NMPRO e-mail for Sept. 2, 2003

Wetlands. Ducks Unlimited provides funds for the preservation of wetlands and the establishment of new habitat. Its efforts and the efforts of game chapters benefit many forms of wildlife. When the first explorers set foot on North American soil, the first reports spoke of vast numbers of wildlife species. In the space of a few hundred years more than one-half of the original wetland is gone. 170,000 wetland acres continue to be lost every year. —January 3, 2005 WindStar Wildlife Garden Weekly e-Magazine ✪
events


Tuesday, February 1 - Thursday, February 3. New England Grows, the NEW Boston Convention and Exhibition Center, Boston, MA. 3-day trade show packed with the latest in tools and gardening accessories. Professional level lectures for the green industry. $45 for 3 days. www.negrows.org.


February 8, 9, 10, 15, 16. 4th Annual Northeast Organic Farming Association (NOFA)’s Course in Organic Land Care, New Haven, CT. Organic landcare, from design through maintenance. $350. NOFA accreditation offered. For more information, contact Bill Duesing, 203-888-5146, ctnofa@ctnofa.org, or www.organiclandcare.net.

ELA ROUND TABLE
Tuesday, February 8. 2 - 5:00. PM Best Management Practices for Environmentally Sustainable Lawns, Norwell, MA. Mary Owen, Turf Specialist, will address the establishment and maintenance of turf areas and the protection of water and other resources. For more info: www.ecolandscaping.org or 781-659-2559.


ELA’s Guide to Healthy Landscape

The first chapter in ELA’s Guide to Healthy Landscape series, “From the Ground Up: Site and Soil Preparation,” is a fine training aid for employees or an educational gift for an enthusiastic customer. Topics are: managing soil fertility, the importance of the soil food web, protecting site features, managing invasives, and much more. Features are line illustrations, glossary, and list of resources and organizations. Cost (includes postage and handling) is $25 members, $30 non-members (in MA add 5% sales tax). Inquire about quantity discounts. Send orders, with payment: Attn. Soil Guide Order, ELA, 60 Thoreau St.,#252, Concord, MA 01742.

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