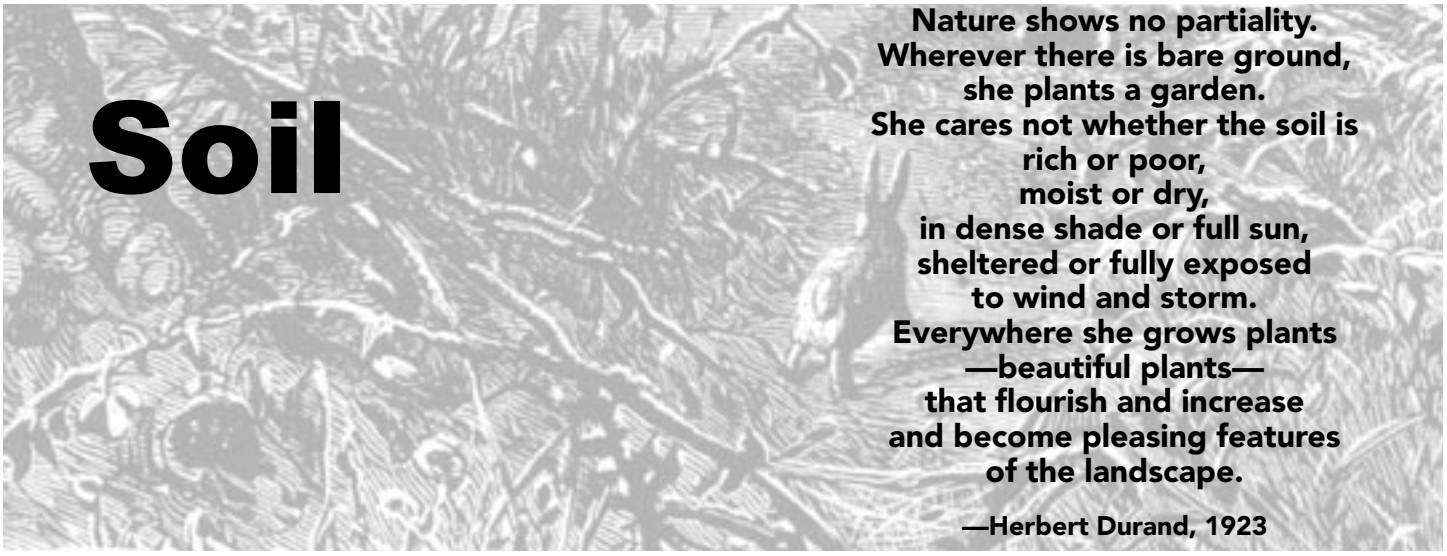
Because land doesn't come with a manual...

THE ecological landscaper

The Newsletter of The Ecological Landscaping Association Vol. 11, No. 3 Fall 2004



When
the sun rises,
I go to work,
When the sun goes down,
I take my rest,
I dig the well from which I drink,
I farm the soil that yields my food,
I share creation.
Kings can do no more.

—Chinese Proverb (circa 2500 B.C.)

within:

Don't Treat Soil Like Dirt

Tom Akin

In our increasingly paved-over civilization, soil is a woefully under-appreciated asset. Just think what an amazing resource it is! Soil naturally filters all of our water. Soil enables us to grow all of our food, fiber, and flowers. Soil is home to millions of life forms. And it was dropped here, free of charge, by the last glacier that came through, 12,000 years ago.

Biological properties of soil

Soil quality is interconnected by biological, physical, and chemical factors. All three can be improved by adding organic matter.

The astute gardener knows that a healthy, biologically diverse soil promotes a bountiful harvest and a lush landscape. Not long ago, manure from a neighboring farm was the source of a soil's biological diversity. Now manure is more likely to come dehydrated in a plastic bag.

Soil Organic Matter

But, even from plastic bags, the addition of manure, leaf-based compost, bark mulch, or wood chips will increase your Soil Organic Matter (SOM) level, the amount of organic matter in the soil. Higher SOM levels attract a multitude of arthropods, insects, and animals (both invertebrate and vertebrate), bacteria and fungi. Increased biological activity improves soil quality, which, in

Continued

"Gramma said when you come on something good, first thing to do is share it with whoever you can find; that way the good spread out where no telling it will go. Which is right."
—Little Tree in The Education of Little Tree, *by Forrest Carter*

The Ecological Landscaper
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For information about ELA, contact:

ELA, 60 Thoreau Street, #252
Concord, MA 01742-2456
(617)436-5838

Or check our Web site at:
www.ecolandscaping.org
(Members section password: elapost)

Talk to us! We welcome comments, letters, articles, ideas, and opinions. Contact Fran Gustman, Editor, at fgustmaneditor@juno.com or 617-787-4274, with newsletter content.

Send all other ELA business, including address changes, to the Concord address above.

The ELA board meets throughout the year in various locations in eastern Massachusetts. All members are welcome. Contact us for specific dates and locations.

Don't Treat Soil Like Dirt
continued from p. 1.

turn, strengthens the root systems of plants.

If you are using organic practices, 10-20% SOM (by weight) is ideal to maintain release of plant nutrients. Most of the soils of the Arnold Arboretum test between 10-20% SOM, primarily because grass clippings and leaves are left on the site and there is little or no tillage to oxidize soil organic matter. In my opinion, more SOM is better, both for the soil and the plants. However, research has shown, if herbicides are employed for weed control, levels higher than 4-8% SOM render them less effective.

Physical properties of soil

Soil texture (determined by the percentages of sand, silt, and clay) is fairly immutable; unless another glacier passes by or the top 12 inches of soil is otherwise replaced, we will have to work with the soil we have.

However, both soil structure (how the soil particles are glued together) and soil tilth (how tightly the particles are glued) can be modified. Microbial biomass and microbial exudates are the glues that coat, separate, and hold soil particles in place.

Air movement (oxygen in particular) and water are essential for all biological processes. Good structure and tilth allow air to diffuse throughout the soil, water to infiltrate freely, and permit root systems to explore and mine the soil for nutrients to the fullest extent.

Organic matter in soil is a dynamic mix of decaying plant material, the agents of decay, and humus. Worms, insects, arthropods, bacteria, and fungi first consume the least-resistant forms of soil carbon such as plant proteins, sugars, and fats. Resins, cellulose, and lignin, to name a few, are decay-resistant plant components; they are more chemically complex and require numerous modifications by microbes before decay is complete. As plant materials are consumed, decay by-products are themselves transformed. Carbon dioxide is generated and SOM evolves into its most chemically stable form, humus.

Humus

Humus consists of two decay-resistant organic acids, humic acid and fulvic acid. Humus, like clay minerals, has large surface areas of negatively charged sites that attract and hold positively charged ions or cations. Cations such as potassium (K+), calcium (Ca2+), magnesium (Mg2+), and ammonium (NH4+) are the most desirable. These are joined by strictly acidifying cations such as hydrogen (H+) and aluminum (Al3+). Other naturally occurring elements such as the micronutrients (copper, zinc, molybdenum, etc.), sodium (Na+, not a plant nutrient), and heavy metals such as lead (Pb2+), nickel (Ni2+), and cadmium (Cd2+) may also be attracted to the negatively charged sites. Because of this electrical relationship with cations, humus is a sink (or storage reservoir), that readily absorbs plant nutrients.

Cation Exchange Capacity

A soil's ability to attract and hold cations is called its Cation Exchange Capacity (CEC) and is largely dependent on the content of SOM and clay minerals. Of the two, it is argued that, especially in New England, SOM is more important because organic matter levels can be manipulated while the chemical reactivity of clay minerals is relatively low.

Soil pH

Soil pH governs the solubility of most of the essential plant nutrients. If soil pH falls below 5.5, many essential elements are rendered insoluble. Soil pH is a

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Don't Treat Soil Like Dirt
continued from p. 2.

measure of the concentration of hydrogen (H+) ions dissolved in the soil water solution. Buffer soil pH is a measure of the concentration of hydrogen (H+) ions absorbed onto the soil colloids (SOM and clays). This type of acidity is said to be held in reserve because it is temporarily sequestered on the colloids. If the active acidity is neutralized with calcium limestone, the hydrogen ions held in reserve on the colloids will be replaced by the calcium. The replaced hydrogen (H+) then will enter into the soil solution and will take part in the active acidity.

The Base Saturation numbers presented in the soil test report indicate the percentages of potassium, magnesium, and calcium on the soil colloids; these numbers, along with the percentages of hydrogen, aluminum, and ammonium, constitute the CEC number. The CEC and the Base Saturation levels are some of the most important numbers on soil test reports.

Amendments

Each soil amendment comes with a unique microbe population; the greater the biological diversity, the better the chances for improved soil. Bacteria and fungi are responsible for degrading carbonaceous materials. They require nitrogen to complete their lifecycles. The Carbon:Nitrogen (C:N) ratio is vital to choosing amendments.

Nitrogen in the soil, usually in the form of nitrate (NO3), is incorporated into the microbial biomass as amino acids and proteins. Absorption of all available nitrogen by microbes is called "immobilization." Nitrogen deficiency shows up as chlorosis of the older leaves and gradually moves up the plant.

If the C:N ratio exceeds 30:1, as it does in pine sawdust (C:N ratio of ~300:1), microbes may not have enough nitrogen to degrade the available carbon. The bacteria and fungi are then not able to multiply. In manure (C:N ratio of ~10:1), nitrogen is plentiful and the microbial processes can proceed. When nitrogen is released from the microbial biomass back into the nitrate form, the nitrogen is once again available to plants.

A C:N ratio of 30:1 or slightly higher will immobilize nitrogen to a slight degree and organic matter levels will increase. With the addition of organic amendments with C:N ratios of less than 30:1, soil organic matter levels may actually decrease when too much nitrogen is present. This may occur under high temperatures and adequate soil moisture, when microbiological activity is at its highest levels.

Testing

UMass Soil Testing Lab com-

Continued p. 4, bottom

The nation that destroys its soil destroys itself. —Franklin D. Roosevelt

Compost: For Land's Sake!

Fran Gustman

It won't be too long before the leaves turn beautiful shades of red, orange, and yellow. And then they will fall to the ground. What to do with them all?

As I visit friends and family, I am always surprised to find that Boston's recycling program is much more complete than those of other towns. Leaves packaged into large paper leaf bags and bundled twigs are composted by the city. But, why not use all that good material at home?

Composting is important

Composting is recycling on an organic level, returning nutrients to the soil. When done properly, composting is not smelly, does not attract animals, and does not take a lot of room. The finished product is dark, crumbly, and clean with a pH (level of acidity) of 6 or 7, which is perfect for most plants. Compost is the only fertilizer that I use in my ornamental garden.

Adding compost improves clay soil; the spaces between particles of compost allow air and water to enter and loosen the soil so that roots can penetrate more easily. In sandy soil, compost acts as a sponge to retain water. Compost also works as a moisture-retaining mulch and looks as nice as a wood chips.

How-to

Vegetable kitchen scraps and eggshells, coffee and tea grounds, grass, weeds, trimmings, shredded newspaper and paper bags (no more than 10% of the pile), get thrown onto my compost heap. Ideally, a composting bin will increase in temperature as the contents decompose. In the winter, cats will warm themselves on top. The goal is a temperature high enough to kill off weed seeds and pathogens. It gets hot enough to steam in the winter without any effort on my part.

Most experts recommend that diseased or insect-infected plants or weeds with mature seeds be left out of the compost as many compost piles don't reach the necessary temperature to kill them. You can expect to find lots of earthworms and slugs in the pile, which is good news — they help degrade the scraps.

Alternate moist green waste with dried leaves and paper and throw in handfuls of dirt to add micro-organisms. Don't pack down the materials. The pile should be moist but not soggy; you may need to water it with a hose or dry it out by leaving off the cover of the bin. Stirring the pile on a regular basis will distribute moisture and microorganisms and add oxygen to speed up the process of decomposition. And even though I rarely stir the pile, I find several feet of lovely new soil at the bottom of my bin every year.

Don'ts

Egg yolks, meat and fish may attract scavengers. Pet manure may carry disease. Black walnut and Norway maple are naturally toxic to other plants so avoid composting any parts of these trees. Don't add clippings of grass or other plants treated with herbicides or insecticides; pesticides kill the microorganisms and the insects that are necessary to degrade the pile — and they aren't good for people to breathe in or touch, either. (Because pesticides may have been used on clippings that go into municipal compost, I am hesitant to use it.)

Leave out twigs, brush, and branches or chip them; wood products take much longer to decompose than the rest. I speed up the decay of other tough items, such as melon and pumpkin rinds and corn cobs by slicing them into smaller pieces at the dinner table and I don't add in avocado pits, which take years to decompose. One

Continued

Don't Treat Soil Like Dirt

continued from p. 3.

post analysis and soil testing is available to the general public as well as professionals. A compost analysis includes pH, C:N ratio, total N (nitrate and ammonium), total C, moisture content, and bulk density (tons/cubic yard). The bulk density number and C:N ratio indicate the additional nitrogen needed to supplement large amounts of organic amendments.

Improving the soil is good stewardship, plain and simple. First test the soil, then follow the recommendations! Be vigilant concerning organic matter levels and soil pH. Let's be good stewards of a precious resource, the living soil! ■

Thomas J. Akin is a former Board member of ELA. He is Conservation Agronomist at the USDA Natural Resources Conservation Service Soil Conservation Service in Amherst, MA, and former Assistant Superintendent of Grounds at the Arnold Arboretum in Massachusetts. Contact him at 413-253-4365 or thomas.akin@ma.usda.gov.

Compost *continued from p. 4.*

friend forbids onion skins in her compost pile because they don't degrade quickly enough to suit her!

The miracle of new soil

I usually empty my compost bin in the spring because that is when I am thinking about getting the plants off to a good start. It's also easier to add a layer of compost to the whole garden after the winter has flattened the foliage and for that you need a lot. Other than that, there are no rules for when to use compost.

I remove the front of the bin and take out the scraps that haven't yet decomposed. Then I shovel the beautiful, soft compost into a wheelbarrow and pile it up next to the bin. The scraps that did not decompose are tossed back into the bin, the front is hooked on, and I'm back in business.

If I were designing the perfect system for a small property, I would put two bins next to each other, each about 2 feet square and 3 or 4 feet high. After filling one bin, I would start on the other. When I needed compost, I would put the scraps that have not decomposed in the first bin into the second, empty out the compost, and continue filling the second. I would have a chicken wire cage for the overflow of fall leaves, which would be added periodically to the regular compost bin. In the spring, I would empty the chicken wire cylinder of finished compost.

Larger properties will want larger bins and perhaps three instead of two.

Bins

A bin is not essential to creating compost but it is neater than a pile. I use a non-descript 3 1/2-foot-high plastic bin with a cover. My neighbors have a smaller bin that spins on a stand; it doesn't seem to make compost out of scraps any faster than mine. Compost bins are sold by mail order from seed and garden accessory catalogs and can be purchased from municipal organizations.

The simplest bin to make is an upright cylinder of chicken wire with the ends hooked together. It is unhooked to remove the compost.

To make a sturdier bin, sink 4x4 corner posts into the ground, 5 feet apart. Alternate 2x4s and 1x4s horizontally to make the sides and the back, leaving 2-inch gaps for air circulation; the 2x4s are strong enough to keep the sides from bowing and the 1x4s save money. The front can be left open to make it easy to fill and empty or a removable panel can be hooked in place to conceal the contents.

Compost improves the soil's capacity to hold nutrition,

Continued p. 6, bottom

gleanings

New IPM book
IPM and its application to domestic gardens is covered in *IPM for Gardeners: A Guide to Integrated Pest Management,* from Timber Press. Ten chapters address plant and pest basics and the main pest management techniques (cultural, biological, etc.).

Keeping up to date
IPMnet is an excellent free e-list that reports on development, research, and productive application of rational pest anagement/ crop protection. To subscribe send the message "subscribe" to <IPM-net@science.oregonstate.edu> and include an e-mail address.

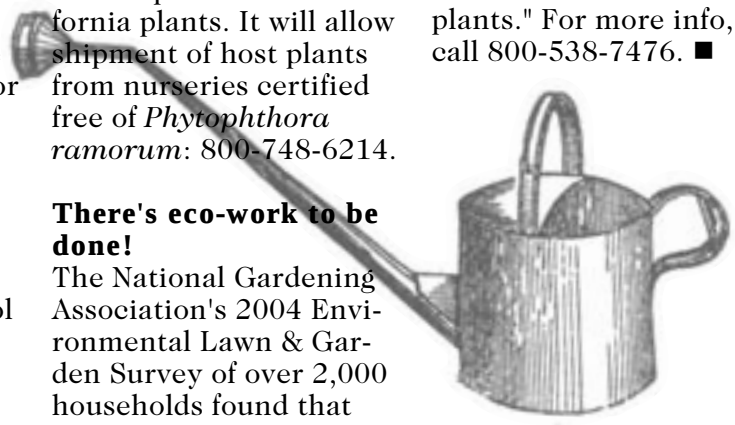
Turf questions and samples
New Englanders can direct turf samples and questions to Dr. Robert Wick at UMass Amherst: http://www.umassturf.org/services/turf_diagnostics/diseases.html. August 31, 2004, marked the permanent closing of Gail Schumann's Turf Disease Diagnostic Lab at Marquette University in Wisconsin. Outside New England, check with the local extension service or the Yellow Pages for private labs.

Turf Classes
September 17, 2004, is application deadline for the UMass Winter School for Turf Managers, a course especially designed for experienced turf professionals. Winter School is a full-time program scheduled for seven weeks in January-February 2005. For additional information and an application: http://www.umassturf.org/education/certificate_programs/winter_school.html.

Strange bedfellows
Scotts Co. has signed an agreement to acquire Smith & Hawken, an unusual move given Scotts' focus on fertilizers, pesticides, and soil and Smith & Hawken's high-end furniture and garden accessories. —The Weekly Dirt, for 10 August, 2004

Sudden Oak Death
Following court orders, Kentucky will conform to federal guidelines and will drop its ban on California plants. It will allow shipment of host plants from nurseries certified free of *Phytophthora ramorum*: 800-748-6214.

There's eco-work to be done!
The National Gardening Association's 2004 Environmental Lawn & Garden Survey of over 2,000 households found that only 25% used "only well-adapted or native plants in their landscaping and remove poorly adapted, exotic or invasive plants." For more info, call 800-538-7476. ■



Compost *continued from p. 5.*

air, and water. It helps to correct pH and nutrient deficiencies. When the soil is healthy, the plants are healthy, whether ornamental or vegetable. Roger Swain of the "Victory Garden" television program has said, "I measure our success in the declining amounts of chemical fertilizer that I add to the garden each year and the bushels of beans, cucumbers, and squash that we harvest nonetheless." ■

Fran Gustman is Editor of Ecological Landscaper *and* HortResources Newsletter *for New England 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 gustmaneditor@juno.com.*

If you have a dollar to spend on the garden, spend ninety cents on the soil and ten cents on plants. —Proverb

Tea Party in the Garden: Aerated Compost Tea

Jeff Lowenfels

Compost is great stuff. It is full of beneficial bacteria, fungi, nematodes and protozoa, the basis of the soil food web. These microbes protect plant roots, retain nutrients by keeping them from leaching out of the soil, outcompete pathogens for space and nutrients, create good soil structure, and cycle nutrients into plant-usable form.

They also support micro- and macro-arthropods that play beneficial roles in keeping populations in check, improving drainage, taxiing microbes through the soil and breaking open organic debris so microbes will have an easier time in the decay process.

If you are paying attention to gardening trends, you've started to hear about using aerated compost teas instead of, or as a supplement to, compost. What's new about compost teas? Haven't farmers and gardeners made them for centuries by soaking a compost or manure-filled burlap bag in a wooden barrel for a few weeks? Well, the resulting tea, at best, was a weak leachate of some of the components in the mix and at worst it contained alcohols (one part per million kills root cells), *E. coli*, and other pathogens that thrive in anaerobic conditions.

Aerated teas do not go anaerobic. The continual addition of air during the brewing process provides plenty of oxygen for microbes to utilize as they live and breed. Nutrients are added to help the microorganisms grow and multiply. Complex sugars, for example, foster growth of bacteria; humic acids, cold-water soluble kelp (Acophyllum nodosum), and rock dusts help grow fungi in teas.

Some plants, in particular those that remain in the ground for a number of years — perennials and woodies — prefer nitrogen in ammonium form (NH4). Annuals and vegetables prefer nitrate (NO3). Aerated teas can be adjusted to promote one or the other in the soil.

Finally, modern compost tea brewmeisters have learned that they can increase fungal or bacterial numbers by making compost teas that are either fungally or bacterially dominated. Brown materials such as fall leaves, bark and twigs produce compost with higher fungal populations. Green materials such as fresh grass clippings or hay lead to bacterial dominance. Why does it matter?

The resulting microbial stew can be diluted up to five times and used as a soil drench and as a leaf spray. A farmer would have to put down five tons of compost per acre to achieve the same level of microbial activity as he would by adding five gallons of aerated compost tea. (Of course, there are other reasons to use compost.)

New brewers

Just a few years ago gardeners had to construct their own brewers. (Plans can be found at http://www.dep.state.pa.us/dep/deputate/airwaste/wmrecycle/Tea/tea1.htm/.) But, today, a number of companies produce affordable home brewers. The Alaska Bountea machine is the least expensive, requiring twenty-four hours to make teas: http://www.alaskagiant.com/. The KIS brewer is the only machine that can make tea in twelve hours: http://www.simplici-tea.com/. Bob's Bitti from Bob's Brewers will make up to thirty gallons in twenty-four hours: http://www.bobsbnbrew.com/.

Making tea

To make five gallons of tea you need a couple of cups of good compost, free of the foul smells that indicate anaerobic conditions, and made from ingredients that do not contain pesticides, herbicides or — if you are worried about *E. coli* — manures. Non-chlorinated water is needed because chlorine kills the microbes; gas off the chlorine by heating the water at 70° for a few hours.

Finally add nutrients. Complex sugars such as non-sulfured molasses or maple syrup promote bacterial growth. For five gallons, two or three tablespoons will do the trick. Add humic acids, oat bran, kelp (*Acophyllum nodosum*) and kelp flowers and fish hydrosylates to provide surfaces to which fungal hyphae will attach and grow.

Aerate for twenty-four hours or as instructed by the

Continued

manufacturer. The end product will smell clean. If spraying, strain it through pantyhose or use a "concrete sprayer," which has bigger openings than a garden sprayer.

Using the tea

Apply teas before 10 A.M. or after 4 P.M. This is when the UV rays, which can kill microbes, are less strong. When microbes run out of food, the tea will quickly go anaerobic, so use teas the same day they are made to get the full benefit.

A healthy soil food web is one with a complete and diversified set of microorganisms and microbes need food. Once you start using microbe teas, you should not use chemical fertilizers, which, as salts, suck the life out of the soil. "Organic" fertilizers, with NPK numbers below 10, 10, 10, provide food for the microbes, but ample organic material is even more valuable. Compost also creates better soil structure, reduces the need to water, and reduces disease problems.

Gardens that have been treated with chemical fertilizers will need an application of aerated compost tea once every seven to ten days for the first year. Thereafter, a good schedule for applying compost tea is early spring, midsummer, and fall.

But there is no such thing as applying too much tea — you can't harm the garden with it, only make it better. ■

Jeff Lowenfels is the Cal Ripkin of garden writers. His Anchorage, Alaska, column has run without missing a week for thirty years. He hosts "The Garden Party," Alaska's most popular gardening radio show, and is writing a gardening book about the soil food web. He can be contacted at jeff@gardener.com.

resources

Soil

Tom Akin's List of Essential Soil Web Sites:

UMass Soil Testing Laboratory Massachusetts residents, get your soil and compost tested here! http://www.umass.edu/plsoils/soiltes.[Residents of other states should contact their local cooperative extensions or private soil labs.]

UMaine Excellent recommendations for organic amendments: http://anlab.umesci.maine.edu/handbk/gardorg.htm

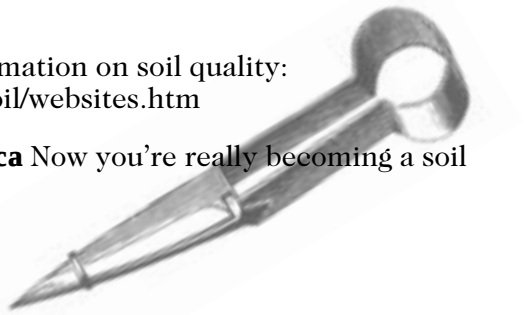
UMaine Soil Testing Lab Excellent soil test interpretations and a sample soil test: http://anlab.umesci.maine.edu/gardbk/gard0.HTM

USDA/SARE Slide show provides an excellent overview: http://www.uvm.edu/~nesare/slide.html

Soil Quality Institute Excellent overview: http://www.statlab.iastate.edu/survey/SQI/

UC Davis Comprehensive information on soil quality: http://www.sarep.ucdavis.edu/soil/websites.htm

Soil Science Society of America Now you're really becoming a soil geek! http://www.soils.org/



Other Soil Resources

Seeds of Change Seed and garden supply company promoting organic gardening offers an intelligently written monthly newsletter, geared to a knowledgeable audience. More on the basics of soil chemistry at: http://www.seedsofchange.com/digging/garden_info.asp.

Compost

Ruth Stout, *Gardening Without Work. How to Have a Green Thumb Without an Aching Back.* Ruth Stout, sister of mystery writer Rex Stout, was the originator of the concept of composting in place and composting without turning. Try the internet for copies.

Stu Campbell, *The Mulch Book: A Complete Guide for Gardeners. Let It Rot! The Gardener's Guide to Composting.* Both published by Storey Publishing.

Compost Tea

http://www.intlctc.org/ and **http://www.alaskahumus.com** For more information.

Compost Tea List Serve www.Yahoogroups.com

www.soilfoodweb.com Be sure to look at the web site of Dr. Elaine Ingham, a pioneer of the soil food web and aerated compost teas. ■

events

October 18-22
North American Plant Protection Organization Annual Meeting, Vancouver, BC, Canada. Contact: M. Derepentigny, Nappo 2004, Cfia, Room 3308 West, 59 Camelot Dr., Ottawa, On K1a 0y9, Canada. Fax: 1-613-228-6140. Phone: 1-613-225-2342, Ext. 4357. Email: Mailto:Mderepent@Inspection.Gc.Ca. Web: Http://Www.Nappo.Org/Annualmtg/Annualmtg04-Bil.Htm.

March 15-16
Northeastern (US) Regional IPM Center 1st Biennial Conference, Manchester, NH, USA. Contact: L. Thomas, 315-787-2626; mailto:egt3@cornell.edu; http://NortheastIPM.org/conference2005_index.cfm.

un-classifieds

HEART&SOIL SPECIAL OFFER FOR ELA members. You can receive a FREE PALLET OF ORGANIC FERTILIZER from Heart&Soil. While supplies last, Heart&Soil will offer a free pallet of 25 lb. bags of pHplus for landscapers. pHplus is great for installations and all spring prep work. The product not only raises soil pH quickly and safely, but it's also a natural source of potassium, zinc, and iron. Call Heart&Soil toll free and ask for details on the ELA special offer. Limit one pallet per company. Not for resale! Ask for Dan at (866) 999-SOIL(7645).

Well Water Connection, Inc. is a full-service firm providing custom-designed irrigation wells for green industry professionals and their clients. In addition to providing water wells, we offer pump design and installation services, water well design, stain removal and filtration systems, evaluation and repair service, project management and more. For more information, please contact John Larsen at 978-640-6900 or jlarsen@wellwaterconnection.com.

ELA's Guide to Healthy Landscape

The first volume 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. Discussed is: managing soil fertility, the importance of the soil food web, protecting site features, managing invasives, and much more. Features are line illustrations, a glossary, and a list of resources and organizations. Cost (includes postage and handling) is $25 for members, $30 for non-members (in MA add 5% sales tax). Inquire about quantity discounts. Send orders, with payment, to: Attn. Soil Guide Order, ELA, 60 Thoreau St. #252, Concord, MA 01742.

AD RATES

full page (7½ H x 10" V) . . . . . $125/issue; $425 /4-issue run
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quarter page (3⅝ H x 4⅞" V). . . . . $50/issue; $170 /4-issue run
eighth page (3⅝ H x 2⅝" V) . . . . . $25/issue; $85 /4-issue run
business card (2 H x 3½" V) . . . . . $25/issue; $85/4-issue run
un-classifieds (line ads, up to 50 words) . . . . . $5/issue; $17/4-issue run (additional words: $1/10 words)

The Ecological Landscaper is published quarterly. Deadlines: Nov. 15, Feb. 15, May 15, and Aug. 15. Rates are for camera-ready ads. Payment must accompany ad. If an ad is taken out for a multiple-issue run and cancelled before the end of the run, a pro-rated refund, less 25% service fee, will be issued. Cancellations must be by the deadline. Any change made to a multiple-run ad after the ad's first run voids the multiple-run discount. The advertiser is responsible for final content of the ad. 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 consequences of — or the results from the use of — products, services, or procedures described in any ad. There are currently no tie-ins with advertising to ELA publications or venues. Direct ad copy, payment, or questions to: ELA, Attn. Newsletter Advertising, 60 Thoreau St., #252, Concord, MA 01742; 617-436-5838 (phone). Checks should be payable to Ecological Landscaping Association.

PLANT-A-ROW-FOR-THE-HUNGRY (PAR)

Hungry people need nutritious vegetables and fruit. Contact Doreen Howard, National Coordinator for PAR at gardendiva@charter.net to find out where to bring excess harvest. Don't let the anything go to waste! To start a local PAR program or to obtain PAR literature or a video, call 877-492-2727 or par@gwa.org.

ECOLOGICAL • LANDSCAPING ASSOCIATION •

JOIN US TODAY!

Membership Categories

Associate | $40

For nonprofessionals and others who want to support ELA's mission. Associate members receive the ELA newsletter, mailings, and a copy of the Membership Networking Directory.

Professional | $75

For both professionals and others who are interested in a greater level of commitment and/or participation in ELA's programs. Professional members receive the ELA newsletter, mailings, and a copy of the Membership Networking Directory. This level also includes a listing in the Membership Networking Directory, if desired; a program discount for one person, when available; and selective publication discounts.

Supporting | $125

All of the above-listed benefits plus program discount for two people, when available; selective publication discounts; and a free 1/8-page ad in the Membership Networking Directory.

Sustaining | $250

All of the above-listed benefits plus program discount for four people, when available; selective publication discounts; and a free 1/4-page ad in the Membership Networking Directory.

ELA's membership year is January through December. Remit half the membership fee if you apply after July 1. Canadian members, please adjust for the currency exchange. ELA is a 501(c)(3) charitable organization. Your membership is tax deductible in accordance with federal regulations. Download a registration form from our website or call (617)436-5838 and a form will be mailed to you.

www.ecolandscaping.org

Ecological Landscaping Association's
Guide to Healthy Landscapes
Volume 1

From the ground up:
Site and soil preparation

This chapter is an intensive look at on-site soil management for long-term health of the landscape. Written by ecologically minded landscapers and other professionals, it includes 82 pages of practical and in-depth information for the professional and the informed homeowner. First in a series.

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ELA news

New Editor, Fran Gustman

As new editor, layout person, and writer for the *Ecological Landscaper,* I lack someone to introduce me, so I will have to tell you about myself.

I have worked with several publications with an ecological slant, including *HortResources Newsletter* and *Wild Ones Journal.* I am garden columnist for the *Allston-Brighton TAB* in Massachusetts, weekly urging my readers to use least harmful methods, and a designer specializing in small and urban gardens.

As the new editor of the *Ecological Landscaper*, I'll be covering a lot of territory even when I don't move from my keyboard! ELA membership spans the coasts and I want to review practices that are useful to all members. If there is a subject that you'd like to to read about, please let me know.

And I will be delighted to receive a message from volunteers who would like to write for the newsletter. Contact me at fgustmaneditor@juno.com or 617-787-4274.

If I don't hear from you first, you may soon be hearing from me!

ELA's Winter Conference

ELA's Winter Conference will be March 4 and 5, 2005, at the Royal Plaza Hotel in Marlborough, MA.

The two-day event will include lectures and the Eco-Marketplace, with products, services, and growers geared towards ecological landscaping. Come to make new friends of fellow professionals and to catch up with old ones.

Watch for additional details to be posted in November on the ELA web site at www.ecolandscaping.org.

Round Tables

One – The Study, Two – The Show, Three – Get Ready, and Four – Grow!: a Four-Step Program for Ecological Landscaping: two sessions (register for one or both) Saturday, December 4, 2004, and Saturday, April 2, 2005, 9 AM – noon, in collaboration with the Arnold Arboretum. This series will explain how to create and maintain an aesthetically pleasing and ecologically sound landscape. On December 4, Dennis Carboni and Walter Cudnohufsky will discuss site analysis and design. On April 2, Tom Ward, Debra Swanson, and Rolf Briggs will cover installation pitfalls and maintenance. Fee $30 member, $40 nonmember. For more info: www.ecolandscaping.org. ■

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You can bury a lot of troubles digging in the dirt. —Anonymous