

Sudden oak death disease on the move

by Dan Gillman

here have been recent news reports about sudden oak death (SOD), caused by the fungus Phytophthora ramorum. SOD is a severe disease of oak and tanoak in certain Pacific Northwest fog forest areas. In March 2004 Phytophthora ramorum was found in two large ornamental nurseries in southern California (Monrovia Nursery in Azusa and Specialty Plants Inc., in San Marcos). This detection demonstrates that the pathogen is not necessarily limited to the moist coastal regions of northern California and southern Oregon. At least one of the two nurseries distributes nursery stock nationwide, including Massachusetts. To date, Phytophthora ramorum has not been found in Massachusetts, though it has been positively identified in Florida and Georgia. The Massachusetts Department of Agricultural

Resources (MDAR) is monitoring this situation carefully. A number of surveys are planned by MDAR, the United States Department of Agriculture (USDA) Forest Service, and the USDA Animal and Plant Health Inspection Service (APHIS) nationwide



and in Massachusetts to check for the presence of *Phytophthora ramorum* in nurseries and natural forest areas.

This pathogen has a wide range of host plants, including rhododendron, viburnum, and camellia, which are potential "carriers" of the fungus when plants are transported. The damage on non-oak hosts involves minor leaf spotting and twig dieback. However, infections on these non-oak hosts may contribute to a rapid buildup of the fungus in the environment serving, therefore, as a reservoir of inoculum, which in turn infects woody tissues of oaks and tanoak

Surveys continue in several states as a national survey is getting underway. APHIS-PPQ is determining the distribution of *Phytophthora ramorum*. *P. ramorum* has been confirmed in plants traced forward from the initially positive California wholesale nursery in 97 facilities in 14 states.

Sudden oak death continued on page 4

THE NEWSLETTER OF THE ECOLOGICAL LANDSCAPING ASSOCIATION VOL. 11, NO. 2 SUMMER 2004

DEPARTMENTS

- 2 Editor's two cents
- 7 ELA news
- 8 Plucked from the headlines
- 10 Resources
- 11 Unclassifieds
- 12 Events

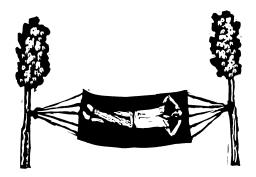
FEATURES

- 5 Global dimming?
- **6 Poetry corner**

New research on tomato disease resistance and lifespan



Page 8



Editor's two cents

Why i am not an "organic landscaper"

This is Nick

Novick's last

contribution

as editor.

Please note

the new

address for

newsletter

correspondence.

A set of tools carefully chosen, developed, and refined for a particular job work fine for that job, as one would hope and expect. An electrician's tool kit contains everything needed to wire a house, install outlets and circuit breakers, hook up to the grid. Some of these tools will work in other settings—saws and drills can cut holes for pipe just as well as for wires.

But to attempt to install plumbing, renovate a room, or re-roof a house with only the electrician's kit is obviously going to be a frustrating proposition. Yet, this is, in effect, what one can be faced with when trying to apply the "organic" tool kit to all landscaping projects.

Prospective customers i encounter often lead with, "Do you do organic lawn care (or land-scaping)?" Because of aggressive marketing in some circles, "organic" has become the shorthand of choice to refer to a set of landscape practices which embody some degree of environmental sensitivity, sustainability, or ecological awareness, whether or not the practices rigidly

adhere to the national organic standards. And, even if they do, as i argue below, i don't think the organic model, as currently conceived, is the best guide for landscaping.

Let me be clear from the outset. I've bought organic food and supported organic growers and organizations for over 20 years. I tend my own vegetable gardening organically, because that's what organic is designed to do, and it does it well, most of the time.

But, what it doesn't do well is address the myriad and diverse situations, imperatives, and challenges which the landscape realm can present. Let's look at a few.

Snapshot 1: Early spring; time to think about putting down corn gluten to help control crabgrass later in season. (Studies show that a chemical released when corn gluten decomposes inhibits new root growth of plants, including crabgrass). But, much, if not all of the corn used in the making of the corn gluten product is a genetically engineered organism (GEO). GEOs



The Ecological Landscaper is published by the Ecological Landscaping Association (ELA). Subscriptions are a benefit of membership in ELA. For more 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)

"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

Talk to us. We welcome your comments, letters, articles, ideas, and opinions. Address all newsletter correspondence, submissions, and address corrections to: Newsletter, 32 Fairfax Street, West Newton, MA 02465; (617)244-7269 (phone/fax); e-mail: c.obrien@comcast.net. Send all other ELA business 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.

Use of proprietary product or manufacturer names is for informational purposes and is not intended to constitute or imply any endorsement or warranty by ELA. We strive to present accurate and reliable information, however, ELA assumes no responsibility for any claims made or for results obtained from any procedures described in the articles we print. Unless described as such, opinions expressed in the newsletter do not necessarily represent those of ELA's directors, staff, or members.

ELA Board of Directors

President: Chris O'Brien Treasurer: Tom Sheehan Recording Secretary: Sue Storer

M.L. Altobelli Andrea Knowles Nick Novick Nancy Askin Bob Levite Cathy Rooney Don Bishop James Marzilli Tom Smarr

Kathy Sargent-O'Neill

Diane Syverson Bruce Wenning

Administrative Assistant: Pat MacAlpine

Newsletter

Editorial Director: Nick Novick Production Editor: Joy Buslaff

are banned by the national organic standards. Take that tool out of the box.

Snapshot 2: Customer has a number of large hemlock (*Tsuga canadensis*) trees, some of which nearly brush against their fancy contemporary home with lots of windows. Although the trees have been dodging the hemlock wooly adelgid bullet for years, this year they've arrived. Untreated, the infestation is likely to worsen every year, and kill the trees in five to ten years. Horticultural oils and soap sprays (which pass organic muster) can be effective, but reaching the upper parts of the trees will be difficult, and the stuff will get all over the house. Or, imagine a stand of hemlocks in the back 40 which is inaccessible to spray equipment. Imidacloprid injected either into the root zone or directly into the vascular system of the tree is an effective alternative which can save the trees. But, under organic imidacloprid is verboten. G'bye, hemlocks.

Snapshot 3: You've convinced a client to convert most of their underutilized lawn and overgrown pasture containing alien forage grasses and tree seedlings to a native grass and wildflower meadow. The existing vegetation has to be killed before you can think about planting. Options include: tilling, herbicide, flaming, smothering. The site comprises most of an acre, so smothering with plastic would be unwieldy and expensive. Tilling would work, but bringing in a big machine to till six to eight times during the growing season is expensive, and, every tilling—however shallow—brings up new weed seeds. Flamers? Possible, but good luck finding a big enough unit. Leaves us with the "H" word.

Organic-approved herbicides (acetic/ethanoic acid-based, or fatty acid-based) are not systemic, so they will need to be applied many times over the growing season to eliminate perennial weeds and woody plants. Plus their cost per area is significantly higher than alternative products. You've heard mixed reports about glyphosate, so you'd like to use something else. A glufosinate-based product (Finale) is reasonably priced, is based on a naturally occurring chemical, and, while not completely innocuous, is reported as having relatively minor environmental impact. But, it's another tool not in the organic toolbox.

Snapshot 4: New lawn customer. Had Chems 'R' Us Lawn Co. carpet bomb their lawn for years, until, finally, Napoleon the dog got cancer, and the Missus said enough was enough. They call you in. You test the soil. Not surprisingly you find: high pH and spiked magnesium levels from years of overliming; other mineral nutrients are MIA; soil's as hard as the street because the soil critters have been nuked.

You get them to understand that it's going to take some time to get the patient up and walking again, and they're okay with that. They also don't want to spend a fortune this year because one of their kids just started college, they had to put a new transmission in the car, and the house is getting re-roofed in the fall.

You know you can't jump from the I.V. bag right to a solid-food diet—putting down organic fertilizer will do little good until the soil ecology has a chance to re-establish itself. And maybe topdressing

with compost (to help jumpstart the recovery process) is beyond their budget for now.

So, you decide on using a "bridge" fertilizer (part "organic," part soluble) to provide some immediately available nutrients while beginning the transition to a sustainable program.

But, no bridging allow with "organic"; soluble usually means "synthetic," and so another tool goes missing. The box shrinks further.

Snapshot 5: It's early September. You're on top of things this year, and you're actually getting to your new lawn installations before October. Soil is prepped, compost and amendments are added, pH adjusted, everything is raked nice and smooth, seed is pressed into the soil, and you're ready to mulch. You've been using straw or salt marsh hay, but you got some weed seeds in a batch of straw last year, and you're concerned about the effects of continual harvesting of the salt marshes (or maybe you can't even get the stuff this late in the season), and, if it's a windy site, those mulches could end up down the block, so you decide to try the pelletized, newspaper mulch that looks like rabbit food. Competitively priced, easy to apply, stays put.

But, alas, it's saturated with a weak (1-2-1), synthetic, starter fertilizer, and, you guessed it, it's not organic.

More of these kinds of situations can be cited, but i think readers will get the idea.

What's more, some things permitted and even encouraged under "organic" arguably aren't appropriate or even ecological in some settings. Organic promotes earthworms as one of the most valuable components in an agricultural or gardening setting, given their tireless ability to aerate the soil and process soil minerals. But the dominant earthworm, *Lumbricus terrestris*, is a native of Europe, and, when it escapes (as it inevitably does) into natural landscapes, it displaces native species, alters nutrient balances, and thus disrupts the local ecology. Organic? Yes. Ecological? Not exactly.

Not organic landscaper continued on next page

ELA's revised

Web site is

online at

www.ecolandscaping.com

The old URL,

ELA-ecolandscapingassn.org,

will still work,

but will

eventually

expire. The

new site is

more attractive,

has some new

features, and

should be easy

to navigate.

More

improvements

and additions

are planned

for the future.



Sudden oak death

continued from page 1

Fourteen

states

continue

to impose

quarantine

regulations

The numbers of nurseries or garden centers with positive *P. ramorum* samples from the wholesaler by state are: California (38), Alabama (1), Florida (5), Washington (6), Oregon (9), Texas (5), Colorado (1), Georgia (13), Louisiana (5), Maryland (1), North Carolina (9), New Mexico (1), Tennessee (2), and Virginia (1).

The number of confirmed positive facilities, from the national and other surveys, is 118 in 14 states. Fourteen states continue to impose quarantine regulations over and above those ordered by PPQ on California, and in some cases Oregon, Washington or British Columbia.

For more information about SOD and *Phytophthora ramorum* check out: <www.massnrc. org/pests/> and hit the Search for Pest Info button for pictures and more details.

Dan Gillman is the UMass Extension Plant Pathologist in the Landscape, Nursery and Urban Forestry Program

(As we were assembling this issue, <massnrc.org> reported that SOD has been found in a mature, red oak tree in a forested park in Nassau County, New York.)

Neptune's Harvest Organic Fertilizers:

Commercially proven. Products include: Cold processed Hydrolyzed Liquid Fish, Seaweed and Fish/Seaweed Blend, Dry and Liquid Humate, Dry Kelp Meal and Crab Shell Fertilizers. Also, Liquid Garlic Spray Insect Repellant. Our Fish is filtered through a 165-mesh screen and then through a 150-micron for easy application through any type of equipment, including drip-tape. Our Fish has been reported to REPEL DEER! "Our Products Work"



Call for FREE catalog and SAMPLE
1 (800) 259-4769
88 Commercial Street. Gloucester, MA 01930
(978) 281-1414 ph. (978) 283-4111 fax
www.neptunesharvest.com

Not organic landscaper

continued from previous page

Compost is something of a holy grail in organic soil improvement methodology, a good-for-what-ails-you solution. And, in fact, in many situations it is a most useful and even essential step in soil improvement. However, for some types of plantings, notably xeric, native grass and wildflower meadows, soil with excessive organic matter and fertility encourages undesirable species and discourages the design species.

Or, consider fertilizer: One can use huge, petroleum-consuming machinery to mine minerals and ocean deposits in far-away states; ship the stuff across the country in big trucks burning more petrol; combine that with other material from other parts of the country; put it in a bag and sell it as "organic" fertilizer. Good for the soil? Usually. Net gain for the environment as a whole, given the significant "embodied" energy cost? Debatable.

For sure, much of what is recommended under "organic" protocol is good and useful. And i'm obviously not saying we shouldn't consider something simply because it's designated as organic. My contention is that, as a comprehensive system, it isn't The Answer any more so than is conventional/traditional landscape practice.

I think that anyone striving to do right by the environment in the realm of landscaping needs to avail themselves of the widest possible range of information and make decisions based on thoughtful consideration, on a case-by-case basis, given the constraints of budget and schedule, client preferences and desires, product availability, capabilities of the landscaper, etc. Not that guidelines aren't useful, but the diversity and complexity of the landscaping realm and the realities of landscape businesses are not yet fully accommodated by any existing system or methodology.



Well Water Connection, Inc.

"Water Wells and Related Services for Landscape & Irrigation Professionals"



978-640-6900

www.WellWaterConnection.com

Global dimming?

Tor nearly 20 years, researchers have been documenting that the amount of sunlight reaching the Earth's surface has been dropping, in some areas significantly. Despite confirmation from numerous scientists, the story has, until recently, received little publicity in the popular media, or even in many scientific circles.

In 1985, Atsumu Ohmura, a researcher at the Federal Institute of Technology in Switzerland, was checking sunlight levels recorded in Europe when he made an astounding discovery. Counter to prevailing scientific thinking, levels of solar radiation striking the Earth's surface had declined by more than 10% in three decades.

By the mid-'80s, global warming was well-documented, so it didn't make sense that there was actually less sunlight coming in. Even Ohmura had trouble accepting the idea. "I was shocked. The difference was so big that I just could not believe it." When the study was published in 1989, it was largely ignored by climate scientists, so, apparently, others didn't believe it either.

Things began to change in 2001, when Gerald Standhill (now retired and living in New York)

and his colleague Shabtai Cohen at the Volcanic Centre in Israel, collected all the available evidence together and proved that, on average, records showed that the amount of solar radiation reaching the Earth's surface had gone down by between 0.23% and 0.32% each year from 1958 to 1992.

Graham Farquhar, a climate scientist at the Australian National University in Canberra, saw the Standhill and Cohen article, and soon realized that the notion of global dimming could explain a long-standing mystery of recent climate science. As the Earth warms, the evaporation rate for water would be expected to increase. But, in fact, repeated studies in recent years have shown that the evaporation rate has actually decreased. When Farquhar compared evaporation data with the incoming sunlight records, the reduced evaporation rate was perfectly explained by the dimming phenomenon.

While Standhill and Cohen's work was published in a relatively obscure agricultural

Global dimming continued on next page



Globe grows
darker as 10
to 37 percent
less sunlight
makes its way
through the
atmosphere
to the ground



A top-quality source for hardy perennials and home to New England Woodlanders, nursery-propagated natives. We deliver to landscapers and garden centers in New England. Come visit!

Geranium maculatum

um

For a catalog write:

VAN BERKUM NURSERY
4 James Road, Deerfield, NH 03037

(603) 463-7663 • Fax: (603) 463-7326 • E-mail: sales@vanberkumnursery.com

Global dimming

continued from previous page

journal, Farquhars published his results in the widely read journal *Science*, and now global dimming is being widely discussed, if still not totally agreed upon.

Some scientists, such as Ellsworth G. Dutton, head of surface-radiation monitoring at the National Oceanic and Atmospheric Administration, have their doubts about the data. "Certainly, the magnitude of the phenomenon is in considerable question," he says. Other scientists, analyzing similar information, arrive at somewhat smaller estimates of the dimming, around 1.3% per decade from 1961 to 1990.

No one seems to know for sure what's causing global dimming. It can't be explained by changes in the sun's output—there has been an overall increase in solar output over the last 150 years. The cause would seem to lie in some change in the Earth's atmosphere which is blocking some of the incoming sunlight. The relatively few scientists who've studied the effect point to air pollution at the likely cause. Small soot particles and certain chemical compounds such as sulphates reflect sunlight and also promote the formation of larger, longer-lasting clouds.

Yet, in Antarctica, which would be expected to have rel-

atively clear air, the dimming effect has been documented.

Since 1990, things may have been changing. Studying satellite images of clouds, Ohura notes that since the early '90s, cloud cover has decreased slightly, and temperatures have significantly increased, thus indicating that global dimming has waned. This would jibe with the trend of general reductions in air pollution in many parts of the world in recent years.

But Farquhar suggests that the documented level of global dimming can't be entirely attributed to air pollution. He thinks global warming itself could be a contributing factor, perhaps resulting in more ocean evaporation which could contribute to cloud formation. But at this point, that theory has yet to be tested.

Ohmura has recently been analyzing data gathered since 1990 and is expected to report on them soon. Based on a reduction in cloud cover and faster melting rates in polar ice, he says, "I have a very strong feeling that probably solar radiation is increasing during the last 14 years."

assembled from news reports "Globe Grows Darker as Sunshine Diminishes 10% to 37%," by Kenneth Chang, New York Times; "Goodbye Sunshine," by David Adam, The Guardian

BLUEBERRIES by Robert Frost (1874–1963)

"You ought to have seen what I saw on my way To the village, through Mortenson's pasture to-day: Blueberries as big as the end of your thumb, Real sky-blue, and heavy, and ready to drum In the cavernous pail of the first one to come!

And all ripe together, not some of them green
And some of them ripe! You ought to have seen!"
"I don't know what part of the pasture you mean."
"You know where they cut off the woods—let me see
— It was two years ago—or no!—can it be

No longer than that?—and the following fall The fire ran and burned it all up but the wall." "Why, there hasn't been time for the bushes to grow. That's always the way with the blueberries, though: There may not have been the ghost of a sign Of them anywhere under the shade of the pine,

But get the pine out of the way, you may burn The pasture all over until not a fern Or grass-blade is left, not to mention a stick, And presto, they're up all around you as thick And hard to explain as a conjuror's trick."

"It must be on charcoal they fatten their fruit.
I taste in them sometimes the flavour of soot.
And after all really they're ebony skinned:
The blue's but a mist from the breath of the wind,
A tarnish that goes at a touch of the hand,
And less than the tan with which
pickers are tanned."...



TO A MOSQUITO by William Cullen Bryant (1794-1878)

Fair insect! that, with threadlike legs spread out, And blood-extracting bill and filmy wing, Dost murmur, as thou slowly sail'st about, In pitiless ears full many a plaintive thing, And tell how little our large veins should bleed, Would we but yield them to thy bitter need.

Unwillingly, I own, and, what is worse, Full angrily, men hearken to thy plaint, Thou gettest many a brush, and many a curse, For saying thou art gaunt, and starved, and faint: Even the old beggar, while he asks for food, Would kill thee, hapless stranger, if he could....

Ah, there were fairy steps, and white necks kissed By wanton airs, and eyes whose killing ray Shone through the snowy veils like stars through mist; And fresh as morn, on many a cheek and chin, Bloomed the bright blood through the transparent skin.

Sure these were sights to touch an anchorite! What! do I hear thy slender voice complain? Thou wailest when I talk of beauty's light, As if it brought the memory of pain:

Thou art a wayward being—well—come near, And pour thy tale of sorrow in my ear....



t's summer, and things have hopefully slowed down for you, so take some time off, listen to a good speaker, and meet up with some of your ELA compatriots. Join us at the scenic Tower Hill Botanic Garden in Boylston, Mass. for our annual meeting and a wide-ranging roundtable discussion on some of the issues involved in "ecological landscaping."

Ecological landscaping is a difficult term to define. There are no easy "yes" or "no," "right" or "wrong" methods, but there are many choices. What seem to be unclear definitions and guidelines are in fact important concepts to be applied on a case-bycase basis. Sustainability and environmental awareness, along with regional considerations, are some of the factors to be considered.

As conservationists, educational organizations, community groups, ecological landscapers and gardeners, and interested homeowners, we can join forces to answer those

questions that keep arising from clients, constituents, and officials.

The day's guest speaker, Michael Talbot, of Michael Talbot and Associates, Inc., will begin the roundtable event by sharing his experiences as an "ecological" businessman, educator, and writer on the subject of environmentally sound landscaping for better health and conservation.

His talk will be followed by an open forum for all invitees to discuss observations about their experiences with clients, peers, and constituents on the subject of ecological landscaping, design, and gardening.

ELA ANNUAL MEETING AND SUMMER ROUNDTABLE

Smart gardening; **Discussions and Answers about Ecological Landscaping and Gardening**

THE DAY'S SCHEDULE

noon-12:30 p.m.: ELA Annual Meeting

12:30-1 p.m.: registration

1-1:45 p.m.: guest speaker, Michael Talbot

2-4 p.m.: roundtable discussion

4-5 p.m.: refreshments and networking



100% NATURAL & ORGANIC

FERTILIZERS Since 1946

RICHARD TREGIDGO Distributor

P.O. Box 265, Bainbridge, PA 17502

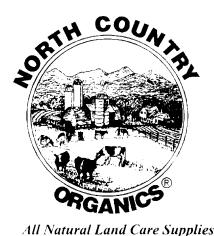
Main Office

(800) 347-1566 (717) 367-1566 Fax: (717) 367-9319

Home/Farm Ph./Fax: (570) 448-2374

www.fertrell.com

Many of our products are



INCLUDED

THE BOBOLATOR COMPOST TEA BREWER Brews 25 - 250 gallon batches

Offering Natural Fertilizers, Soil Amendments and Environmentally Compatible Pest Controls for the Professional:

Arborist Landscaper Nurseryman **Turf Care Expert** Retail Dealer and







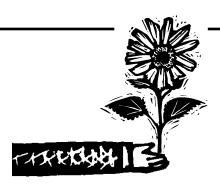
Available Tea Brewing Accessories:

Fungi Booster Bacteria Booster Mineral Booster Tank Thermometer Tank Heater

Compost Tea Brewing Manual (by Dr. Elaine Ingham)

Visit our web site @ http://www.norganics.com

P.O. Box 372 Depot St. Bradford, VT 05033 • 802.222.4277 • fax 802.222.9661 • email: ncoinfo@norganics.com



Smoke 'em if you've got 'em

In a discovery which could have sweeping implications, researchers in Australia have identified the chemical in smoke which makes seeds germinate after brush fires. The chemical, a butenolide, induces germination in a range of species. Research team member Kingsley Dixon said, "We've looked at a couple of vegetable crop species, for example, and got up to doubling of germination in some of these species: ...celery, parsley, lettuce, and we've even got Echinacea [germination to increase] to almost double just using this chemical."

Fifteen years ago, South African botanists demonstrated that it was the smoke, and not heat and ash, that triggered germination. The full story ("Smoke Chemical That Causes Seed Germination Found," copyright 2004, Reuters News Service) can be found on a number of Web sites including: and http://www.planetark.org/dailynewsstory.cfm/newsid/25989/story.htm>.

New regs for diesel

The U.S. EPA has issued a new rule intended to reduce emissions from "off-road" diesel equipment by more than 90%, which includes machines used in landscaping, such as tractors and loaders. To reduce soot from diesel emissions, the Clean Air Nonroad Diesel Rule will cut up to 99% of the sulfur in diesel fuel. Costs of both fuel and equipment are estimated to rise from about 1 to 3% to meet the new regulations, which will be phased in over the next several years.

from Lawn and Landscape magazine, June 2004, G.I.E. Media, Inc., 4012 Bridge Ave., Cleveland, OH 44113; <www.lawnandlandscape.com>

Plucked from the headlines

Building an eco-future at OSU

The Urban landscape Ecology Program being launched by Ohio State University (1680 Madison Ave., Wooster, OH 44691) is being hailed as the best effort conceived to date to improve the landscapes and ecosystems of urbanized areas.

This massive research and educational program "seeks to develop new technologies and environmentally friendly approaches to landscape planning, establishment, and maintenance." Participating in the project are all the university's colleges of Food, Agriculture and Environmental Sciences, Engineering, Public Health, Architecture, and Education, plus OSU Extension, garden industries, and nonprofit organizations.

Objectives include turning the OSU campuses into model ecological landscapes, building neighborhood institutions to promote positive changes in urban landscaping, developing school educations programs, and generating an interactive Web site where citizens can design their own sustainable landscapes. The Columbus suburb of New Albany is expected to become the program's first "ecocity," a neighborhood with varied and useful landscapes where the need for energy inputs such as fertilizers, pesticides, fossil fuels, and water is minimized.

The program will have far-reaching impact. Ohio is the country's seventh most populated state, with 15 metropolitan areas containing 81% of the state's more than 11 million residents. Thus the program will educate a great many people in the principles of ecological sustainability and the restoration of the urban landscape's environmental functioning.

For more info, contact the program coordinator, Parwinder Grewal, (330)263-3963; <grewal.4@osu.edu>. *from* The Avant Gardener, *July* 2004, *Box* 489, *New* York, NY 10028

Tomatoes benefit from legume cover crop

In a five-year sustainable agriculture study, researchers from the U.S. Dept. of Agriculture's Agricultural Research Service (ARS) have found that tomatoes grown with a cover crop of hairy vetch had better disease resistance and lived longer than those grown on black polyethylene mulch with a chemical fertilizer. The covercropped tomatoes received half the chemical fertilizer and fungicide applied in the "traditional" system.

The scientists showed that at least 10 genes in the leaves of the vetch-grown tomatoes were turned on longer, or "over-expressed," allowing those tomatoes to live longer than tomatoes grown on the plastic mulch. These over-expressed genes respond to signals triggered by the specific ratio of nitrogen, carbon, and other elements provided by the cover crop.

The scientists also believe the cover crop allows the tomato root system to produce increased levels of cytokinins, a class of plant hormones that delay senescence and let the plant live longer.

from ARS Web site <file:///Hard%20 Drive/Desktop%20Folder/ELA%20news letter/V11,N2,%20Summer2004/040706 .htm>

Anthracnose-resistant dogwood

A Flowering Dogwood (*Cornus florida*) that is resistant to dogwood anthracnose was discovered growing in Catoctin Mountain Park, Md. The parent tree was propagated and clonal plants were tested for disease resistance to dogwood anthracnose. *Cornus florida* 'Appalachian Spring' was released after extensive testing by the Tennessee Agricultural Experiment Station in Ozone, Tenn., and by the U.S. Forest Service at Bent Creek in western North Carolina. *C. florida* 'Appalachian Spring' has an

upright growth habit and is a prolific bloomer with large, white bracts. Release and marketing of this plant is being handled through Tennessee Advanced Genetics, Tennessee Foundation Seed, Inc., and the Tennessee Crop Improvement Assn. All are located at 2640-C Nolesville Rd., Nashville, TN 37211; (615)242-0467. from Hort Notes, Vol. 15, No. 9, July 12, 2002, UMass Extension, French Hall 230 Stockbridge, MA 01003-9316

Lawns and politics

The Republican national convention is coming to New York in August, as are thousands of people who take issue with some of the Bush administration's policies. A group trying to organize a protest, United for Peace and Justice, applied last summer for a permit for a march and rally for an estimated 250,000 people on the Great Lawn in Central Park.

Citing the millions of dollars spent in the past couple decades to replant and landscape Central Park and the Great Lawn, Mayor Michael Bloomberg and the Parks Department are claiming the area is no longer appropriate for large events. (The lawn had been the site of many large events in the past, including a 700,000-person anti-nuclear rally in 1982.)

The mayor has offered alternative sites either very distant from the convention site or inappropriate for such a large gathering. The *New York Times* notes that "the city has not allowed events with hundreds of thousands of people on the Great Lawn since it was rebuilt in 1996, though it has given permits for ticketed events sponsored by large corporations."

Writing in *Newsday*, Jimmy Breslin expressed his doubts about the city's concerns, and asked the grounds-keeper for the Shinnecock Golf Club, site of this year's U.S. Open golf tournament in June, what he thought about the city's claims that one rally would ruin the lawn. "We had 50,000 [people] a day for seven days on the grounds and the grass is back already. It's nonsense. You don't even know people were here." Referring to the estimated 250,000 who might tromp

the lawn for a day, he said, "After the first day they're gone, you'd never know they were on the grass."

For the full editorial by Breslin ("The Grass Can Take It!") check Newsday's Web site: <www.newsday.com>

ASHS research results

This month's HortIdeas (750 Black Lick Road, Gravel Switch, KY 40328) gives a number of summaries of abstracts and papers for the American Society for Horticultural Science to be presented at their Annual Conference in Austin, Texas, scheduled for July 17-20, 2004 (ASHS, 113 S. West St., Ste. 200, Alexandria, VA 22314-2851). Here are summaries of a few abstracts of particular interest. • Increased Water Use Efficiency with a Surfactant, John Sloan (Dept. of Soil & Crop Sciences, Texas A&M Univ., Dallas, TX 75252) and Wayne Mackay. The researchers tested whether a surfactant that makes water "wetter" by reducing its surface tension can improve the waterholding capacity of soil. They planted impatiens in pots, allowed them to grow for two months, then irrigated once with plain tap water or tap water containing a commercially available surfactant [unnamed] at either the suggested concentration or twice the suggested concentration. After the single irrigation, no additional water was applied; the pots were weighed twice daily, and the plants were watched for wilting. The surfactant (at either concentration) slowed water losses from both clay and sandy loam soils; initial wilting time was longer with clay soil following irrigation with the surfactant. [ed. note: Yucca extract is a natural wetting agent which also has nutritive properties.] • The Charleston Area Children's Garden Project: A Community

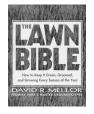
• The Charleston Area Children's Garden Project: A Community Sponsored Initiative, Fred B. Phillips, James W. Rushing (Clemson Univ., Coastal Research and Education Center, Charleston, SC 29414), and Brenda J. Vander Mey. The project sponsors conversion of vacant lots into "neighborhood outdoor learning centers" with gardens for children. Funding is from grants. The project

began in 2000 with one garden and includes 10 gardens this year.

- Utilizing Tobacco Greenhouses for Producing Plants for Environmental Restoration, Andrew C. Bell and Mary M. Peet (Dept. of Horticultural Science, Univ. of N. Carolina, Raleigh, NC 27695-7609). With tobacco growing declining in recent years, many greenhouses that had been used for starting tobacco transplants are now idle. The researchers have identified native plants for stream and wetland restoration as promising alternative crops. These species can be grown using essentially the same techniques to grow tobacco seedlings. • Miscanthus: Ornamental and
- Invasive Weed, Mary Hockenberry Meyer (Dept. of Horticultural Science, Univ. of Minnesota, Chaska, MN 5318). Miscanthus sinensis (Eulalia) is self-incompatible, so individual cultivars planted in isolation will not produce seeds. However, when two or more cultivars are planted close to each other, seed production is likely, resulting in invasive seedlings that can readily cross. A Web site with information on managing Eulalia is at http://horticulture.coafes.umn,edu/miscanthus.
- Evaluation of Organic Herbicides, James Ferguson (Dept. of Horticultural Sciences, Univ. of Florida, Gainesville, FL 32611-0690). Herbicides approved by the Organic Materials Review Institute (OMRI) with active ingredients citric acid (Alldown), clove oil (Matran 2), and thyme and clove oils (EXPRESS) were applied at three locations. The chemical herbicide glyphosate (Roundup Pro) was also applied. The organic herbicides were applied at recommended rates and at twice recommended concentrations and rates; glyphosate was applied to runoff at 5% active ingredient. The organic herbicides gave weed control of 10% to 40%; glyphosate gave 100% control. Note: herbicide applications were made in fall when many of the weeds were mature; labels of the organic herbicides typically recommend use on immature weeds that have not grown very large.



Resources



On the Web

• Cornell Cooperative Extension offers a number of online fact sheets on a wide variety of topics including pests of homes and grounds, water quality, genetic engineering, and a variety of gardening subjects including "eco-gardening." Some of these are regional in nature, but much of the information will have wider applications.

Access them here: http://www.cce.cornell.edu/resources/factsheets.php>.

- The "Plant Facts" Web site, http://plantfacts.osu.edu/, sponsored by Ohio State University, features a searchable database of information from all U.S. land-grant colleges as well as a number of government institutions. You can also access images of plants, turf, insects, and diseases, and 200 how-to videos.
- Morris Arboretum's "Plant Clinic" will help you diagnose plant problems, identify insect pests, learn about IPM, and more. Check it out at: http://www.upenn.edu/paflora/plantclinic/index.html>.
- Massachusetts residents and others nearby will find on <www.Town board.org> a useful calendar of workshops, conferences, and events around Massachusetts having to do with issues of growth, sustainable development, conservation, and environmental issues. The site is maintained by UMass Extension.

Shady lawns

While not explicitly a sustainable or ecological guide, The Lawn Bible, by David Mellor (groundskeeper at Fenway Park) offers considerable, useful guidance for turf in all settings. For example, his tips for maximizing turf performance in shade: Use shade-tolerant varieties; reduce foot traffic; grow the grass as tall as possible (to at least 2 1/2 to 3 inches) for more light absorption and production of photosynthetic energy; consider a growth regulator such as Primo (trinexapac-ethyl) which limits cell elongation and top growth, thus encouraging the plant to redirect its shade-limited energy to root and rhizome growth; and use biostimulants-including amino acids, vitamins, and hormones—on a regular basis to supplement the plants' energy supplies.

(The Lawn Bible: How to Keep It Green, Groomed, and Growing Every Season of the Year; David R. Mellor; Hyperion Books, 2003)

™ Critter tracking

Wildlife aficiondoes take note: The Mass. Assn. of Conservation Commissions has available a nifty, field-worthy card with information for 31 northern (North American) forest mammals. The 4" x 6", laminated card has front and hind prints divided into four movement categories—walkers, waddlers, hoppers, and bounders. Also included are stride and straddle measurements. For ordering info.: MACC (617)489-3930.



Books

A wide variety of books on many topics related to landscaping issues can be found in the UMass Extension Bookstore catalog. Subjects include: Home, Yard and Gardening; K-12 Education; Fish and Wildlife; Waterways/Vernal Pools; Forest/Land Management; Water Quality; Forest Products; Communities, Family and Youth; Floriculture; IPM; Landscaping and Turf; Pesticide Education; Ag. Engineering and Management; Ag Marketing; and Food and Nutrition. The Bookstore can be contacted at (413)545-2717; toll free in Mass. at (877)862-7798; on the Web at <www.umassextension.org>.

Adaptable pruners

I still love my Felco 8s, but Bahco makes a line of hand pruners with a variety of appealing options. Depending on the width and length of your hand, you can order them in small, medium, or large handle sizes. There are also three different size cut-"Hand measuring guide' ting heads to accommodate 5/8 inch to 3/4 inch cutting capacities. And there's also a rotating handle option. The cutting head is angled downward somewhat from the handles for improved ergonomics. Suppliers include A.M. Leonard [241 Fox Drive, P.O. Box 816, Piqua, OH 45356; (800)543-8955; <www. ameleo.com>] and Oesco [Rt. 116, Conway, MA 013241; (413)369-4335; <www.oescoinc.com>].

THE ECOLOGICAL LANDSCAPER AD RATES

full page (7½ H x 10" V) . . . \$125/issue; \$425/4-issue run half page (7½ H x 4½" V) . . . \$85/issue; \$290/4-issue run quarter page . . . (3½ H x 4½" V) . . . \$50/issue; \$170/4-issue run eighth page . . . (3½ H x 2½6" V) . . . \$25/issue; \$85/4-issue run business card . . . (2 H x 3½" V) . . . \$25/issue; \$85/4-issue run unclassifieds (line ads, up to 50 words) . . . \$5/issue; \$17/4-issue run (additional words: \$1/10 words)

The Ecological Landscaper is published quarterly. Deadlines: Dec. 15, March 15, June 15, or Sept. 15. Rates are for camera-ready ad. Payment must accompany ad. If an ad was taken out for a multiple-issue run and cancelled before

the end of the run, we will issue a pro-rated refund, less 15% service fee. Cancellations must occur two weeks before deadline. Any change(s) made to a multiple-run at after the ad's first run voids multiple-run discount. Advertiser is responsible for final content of their ad. ELA reserves the right to refuse any ad for any other reason. ELA makes no claims, warranties, or other declarations as to the effectiveness, reliability, or consequences of—or the results from the use of—any products, services, or procedures described in any ad. There are currently no tie-ins with advertising in any other ELA publication or venue. Direct ads, payment, or questions to: ELA, attn. newsletter advertising, 32 Fairfax St., West Newton, MA 02465; (617)244-7269 (phone/fax); e-mail: c.obrien@comcast.net. Checks should be payable to Ecological Landscaping Association.

Unclassifieds



Reach hundreds of ecologically minded land-care professionals, homeowners, and others! Put your ad in this space for as little as \$5 for up to 50 words (additional words, \$1/10 words). Send your ads to: attn. newsletter unclassifeds, ELA, 60 Thoreau Street #252, Concord, MA 01742.

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).

HELP WANTED. As a small, nonprofit orgnanization with minimal paid staff, ELA relies on the generous participation of dozens of volunteers to spread the word about ecological landscaping. We always have a need for more people to help with the nuts and bolts of running an organization and with maintaining our educational programs. Skills in public relations, fundraising, Web site maintenance and production, writing, nonprofit maintenance, etc. are especially welcome, but anyone with some extra time and a desire to help is welcome. Leave a message at (617)436-5838, and someone will get back to you. Thanks!

A REMINDER. The first volume in ELA's Guide to Healthy Landscape series, "From the Ground Up: Site and Soil Preparation" would make a fine training aid for employees, or an educational gift for an enthusiastic customer. Issues covered include managing soil fertility, the importance of the soil food web, protecting site features, managing invasives, and much more. Line illustrations and a glossary help explain key concepts, and a list of contacts for resources and organizations will guide additional research. Cost (including tax, postage, and handling) for ELA members is \$26.25 \$31.50 for nonmembers. Inquire about quantity discounts. Send orders, with payment to: attn Soil Guide order, ELA, 60 Thoreau St. #252, Concord, MA 01742.

Quality trees and landscape plants, all season long!



Excellent selection of Native species. Our own compost.

Tel. 978/251-4001 fax 978/251-0282 165 Princeton St, N. Chelmsford, MA www.LaughtonNursery.com Where else can a gardener or landscaper find organic gardening supplies and tools, compost bins and rainbarrels, Eco-planters, whiskey barrels, and landscape timbers made of recycled materials, and more?



Stop by and check out our garden and home improvement products. Then head across the street to Mississippi's Restaurant and enjoy two sandwiches for the price of one with this ad. (limit 2 people)



Boston Building Materials Co-op

one-stop shopping for green products that support your environmentally safe landscaping practices

100 Terrace Street Boston, MA 02120 617.442.2262 fax: 617.427.2491 www.bbmc.com email: info@bbmc.com



Events on the horizon

Herbaceous Perennials with Dr. Leonard Perry, Greenhouse and Nursery Ext. Specialist for Univ. of Vt.; 5:30 - 7:30 p.m.; (802)434-4122.

JULY 15 (Elm Bank, Wellesley, Mass.); AUGUST 5 (UMass, Amherst, Mass.) Weed Identification Workshops with Randy Prostak, sponsored by UMass Extension. Includes classroom session, potted weed herbarium, and landscape walk; rain or shine; byo lunch; 9 a.m.-3 p.m.; \$90; (413)545-0895; <www.umassgreeninfo.org>.

JULY 17

Big Bugs grand opening at New England Wild Flower Society's Garden in the Woods, Framingham, Mass. Meet sculptor David Rogers and celebrate opening of the exhibit of his over-sized sculptures; hear about importance of insects in the ecosystem; 9 a.m.-6 p.m.; (508)877-7630.

JULY 21

IPM and Organic Fruit Growing with Bull Suhr of Champlain Orchards, Shoreham, Vt. Tour of orchard and fruit operation, including apples, raspberries, plums, cherries; 6-8 p.m.; \$8 NOFA-VT members, \$12 nonmembers; (802)434-4122.

IULY 23-31

Permaculture Fundamentals:

The Principals and Practices, Black Mountain, N.C.; (828)669-3937; <culturesedge@earthhaven.org>; <www.earthaven.org>.

JULY 27

ELA Annual Meeting and Forum

AUGUST 7

Use, Safety, and Maintenance of Chain Saws, Arnold Arboretum, Jamaica Plain, Mass., with John DelRosso. Safety equipment, proper fuel mix, mechanical maintenance, chain sharpening, more; N.E. Wild Flower Soc. (508)877-7630.

AUGUST 12-15

Northeast Organic Farming Assn. Summer Conference, Hampshire College, Amherst, Mass.; (978)355-2853; <www.nofamass.org/conferences>.

SEPTEMBER 15

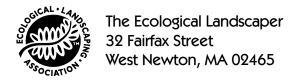
Ecological Landscaping with American Native Plants, lecture by Neil Diboll, Shelton Auditorium, Christian Theological Seminary, Indianapolis, Ind.; <www.ima-art/oldfieldsLHAG.asp>.

SEPTEMBER 16

3rd Annual Ohio Watershed Celebration, Pittsburg, Pa.; (412)442-4000; <www.streamrestorationinc. org>.

SEPTEMBER 17 (Framingham, Mass.), 18 (New Haven, Conn.), 19 Whately, Mass.)

Wildflower Propagation, sponsored by N.E. Wild Flower Society, will focus on growing from seed, including seed and spore collection, cleaning, storage. Plant physiology and ecology will also be discussed. (508)877-7630.



STD PRSRT U.S. Postage PAID Permit 88 Ashland, MA