

## Dates and Events of Note

- February 25 & 26 Pesticide certification exams CCE Ontario or Monroe contact rw43@cornell.edu 585.394.3977
- February 26-29 Maryland cut flower short course contact Suzanne Klick 301.596.9413 or sklick@umd.edu
- March 13 Perennial Plant Conference, Storrs CT www.hort.uconn.edu/2008ppc/
- March 13-16, 2008 GardenScape flower and garden show. www.rochesterflowershow.com
- April 1 Pesticide Certification exam, CCE Monroe, contact Karen Klingenberger @ 461.1000x225
- July TBD Turfgrass field day
- August TBD Landscape field day

Cornell Cooperative Extension in Monroe County provides equal program and employment opportunities.

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## Pesticide Applicator Exams

The New York State Department of Environmental Conservation's schedule of upcoming pesticide applicator exams is now posted on the DEC website, accessible at [www.dec.ny.gov/permits/39583.html](http://www.dec.ny.gov/permits/39583.html) at the bottom under the heading "More About Pesticide Certification and Registration". The first link under that heading is for the Statewide Pesticide Exam Calendar.

Note that you must contact the DEC regional office offering the exam to pre-register. 'Walk-Ins' are NOT allowed. In the northern portion of Region 8 call Gail Mortimer @ 585.226.2466x5423.

When you pre-register, you will need to provide proof of eligibility to sit for the exam. You can also obtain information about exam fees, location and time of the exam, and any special requirements for taking the exam. This is also a good time to ask any questions you may have about the certification process.

# Horticulture Notes Mid Winter 2008



### Dollar Spot Likely Favored by Long-term Trends in Meteorological Conditions

Arthur T. DeGaetano, Director, Northeast Regional Climate Center, and Frank S. Rossi, Associate Professor of Turfgrass Science, Department of Horticulture, Cornell University

Two existing predictive models for dollar spot, caused by *Sclerotinia homoeocarpa* F.T. Bennett, were modified to a single model to accept archived National Weather Service hourly meteorological observations. The revised model was used to identify trends in the potential for dollar spot epidemics from 1950-2004.

The frequency of meteorological conditions conducive to dollar spot has increased at the majority of nearly 100 sites in the northeastern quadrant of the United States. Statistically significant trends in favorable weather conditions for dollar spot existed across the region with the greatest trends in the Southeast and Midwest sub-regions.

Compared to 1975, these areas on average experienced 24 more days in 2004 that were more favorable for dollar spot occurrence. It appears that the increase in favorable conditions for dollar spot epidemics was best explained by rainfall frequency. Increased disease pressure could require additional fungicide inputs to maintain high quality golf turf plagued with dollar spot.

### "Smart" flower bulbs pull themselves to deeper ground

If you or your customers are confused about the right planting depth for flower bulbs, trust the bulbs! Researcher Dr. A. Carl Leopold, William H. Crocker Scientist Emeritus at The Boyce Thompson Institute for Plant Research has found that some flower bulbs are actually "smart" enough to adjust themselves to the right planting depth.

He has proven that bulbs can adjust their planting position by moving deeper into the ground, apparently in search of moister, more conducive growing conditions.

When gardeners plant tulips or lilies too shallowly in their gardens, the bulbs respond "pulling" themselves down into deeper ground.

Leopold and the late Dr. Modecai Jaffe studied plants for decades, but never focused on bulb movement in soil. The duo was interested in working on the physiology of "contractile roots", or those roots that are responsible for bulbs' movement. Negative growth is very rare in plants, and the sort of contractile proteins that are so well known to drive contraction in animal muscles do not occur in plants.

The study focused on the Easter lily "Nelly White." Contractile roots responded to light signals perceived by the bulb. Exposure to certain types of blue light forced new contractile roots to be formed on the bulbs and helped initiate the remarkable bulb movement.

The research team documented that perception of the light stimulus occurred in the bulblet or the subtending leaf. They also found that responsiveness to light faded as the roots aged.

The signal for contraction moved from the bulbs down into the roots, but the roots themselves did not respond to the light. The deeper the bulbs were planted, the less they formed contractile roots.

Summarizing the team's research, Leopold said that many plants have the ability to move down into soil—either to establish a more protected or stable location as in the case of many bulbs and tubers, or to provide stability for the plant. Bulbs "know" how to move down where environmental conditions are more constant.

The complete study and abstract are available on the web ASHS Journal of the American Society for Horticultural Science electronic journal web site: <http://journal.ashspublications.org/cgi/content/abstract/132/5/575/>

## Powdery Mildew of Lamb's Ear

D. A. Glawe, Washington State Univ. and S. T. Koike, Unvi. California Cooperative Ext.

During the summer of 2007 the authors encountered a previously unrecorded powdery mildew disease on several plants of the perennial ornamental plant *Stachys byzantina* growing in a plant bed near a commercial building in Salinas California. This report documents the first occurrence of *Neoerysiphe galeopsidis* on this host in North America. The same disease was first reported by investigators in China on hollyhock (*Althaea rosea*) in 2004.

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## Farm Energy Audits Improving Energy Efficiency

Are you concerned about rising energy costs? Would you benefit from a reduction in energy costs?

Let's face it. Using energy in horticulture and agriculture costs big money, but using energy efficiently can save money. Making informed electrical energy decisions and implementing cost effective energy efficiency strategies could reduce a farm's energy consumption and costs by 15, 20, 30, even 35 percent or more.

A good place to start is with a full-scale energy audit. The New York State Energy Research and Development Authority (NYSERDA) provides energy audits through its FlexTech Program, using pre-qualified consultants. A NYSERDA energy audit helps identify cost-effective energy-efficient improvements leading to lower energy bills.

An energy audit of your business could pay dividends in lower energy costs and rebates on new equipment.

Energy audits generally focus on high-energy use equipment, highlighting the latest energy efficient technology improvements available with the most cost effective savings. By providing comprehensive details about energy use patterns and by recommending opportunities for reduction of energy consumption, a completed energy audit report helps you better understand and manage energy use and reduce energy costs.

Sometimes, just following a few simple maintenance procedures will improve energy efficiency. The energy audit report makes maintenance suggestions for reducing energy use. It also makes suggestions for additional energy conservation measures.

In addition to energy audits, NYSERDA provides incentives to audit participants implementing the energy audit recommendations, and can buy down the interest rate of a loan for certain eligible energy-efficient improvements and/or renewable technologies.

NYSERDA pays the first \$1,500, and many audits end up being free. The final cost of an energy audit depends on the size of the operation.

If you would like to request an audit or for more information about the NYSERDA farm energy audit program, please call Mary Sauvie at 518-862-1090; extension 3229 or email her at [mks@nyserda.org](mailto:mks@nyserda.org)

## Change a Light, Change the World

CCE is encouraging individuals to take the ENERGY STAR change a light pledge. The change a light pledge is a national call-to-action from the U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE) and the U.S. Department of Housing and Urban Development (HUD). By completing the pledge individuals commit to being more energy efficient by switching at least one light in their homes to an ENERGY STAR qualified one.

If every household in New York changed just one incandescent bulb to an ENERGY STAR qualified compact fluorescent bulb, New Yorkers could prevent more than 562 million pounds of greenhouse gas emissions each year.

Doing so also results in significant savings for each household. Replacing just one 75 watt incandescent bulb with a CFL that produces the same amount of light can reduce electricity costs by over \$20 per year. If this change were made across the State it would save a combined total of 365 million kilowatt-hours of electricity per year, and reduce household electrical bills by approximately \$56 million per year.

Take the Change a Light Pledge, by going to [www.getenergysmart.org/FallCampaign/ESPledge.aspx](http://www.getenergysmart.org/FallCampaign/ESPledge.aspx)

## Horticulture Trends for 2008

1. Living large in the yard: Expect backyards to become an even greater extension of our living space, another area to flex our decorating muscles. (Is this not similar to the theme at this year's GardenScape?)
2. Eco-chic turns eco-friendly: Homeowners will continue adopting green strategies to save money, as energy prices remain high. Sustainability is THE word. It is **HUGE!!**

One grower supplier to the chains, when asked how he viewed organics and the whole sustainability thing as a fad, or a long-term trend replied that he was VERY serious about his firm's position in both arenas because he was sure firms are going to be judged first of all by their impact on the earth and the environment; the way they treat employees; and then profit will be the third leg."

3. The local option: Backyard vegetable gardens will flourish as well as community gardens. I expect more for 'designer veggies' or healthy and fresh rather than to fill the larder.

## Three New Athens Select Varieties Handle the Heat

From the University of Georgia comes three new heat and humidity loving herbaceous ornamentals if you are looking for new plants that will scoff at climate change and end each day looking as fresh as ever.

Athens Select™ has three new varieties that will do just that in its line of heat- and humidity-tolerant collection of plants: *Iochroma cyanea* Royal Queenä 'Purple', Abutilon hybrid 'Fairy Coral Red' and Hibiscus 'Panama Bronze' PPAF

Each of these varieties has been evaluated at the Trial Gardens at the University of Georgia (UGA) in Athens. Out of the hundreds of plants currently on trial at UGA, only these three have been chosen to be added to the 2008 line-up of Athens Select plants.

According to UGA faculty member Dr. Allen Armitage, "We don't take new plants lightly here. "We evaluate each and every potential variety to meet very strict criteria, foremost among them is heat and humidity tolerance. And they've really got to add something special to the landscape, not just be 'me-too' plants. These three plants are certainly quite wonderful."

### *Iochroma cyanea* Royal Queen 'Purple'

This plant is truly something special. Its large, velvety leaves and purple, tubular flowers demand attention, whether in the border or featured in a lively container. Plant collectors have known about *Iochroma* for some time, but you'll find that our selection is particularly spectacular in the landscape. And at 3-4', it's a tower of purple elegance! *Iochroma* is native to Central and South America and should be treated as an annual in most parts of this country. (part to full sun, 3-4', hardy to US Zone 7-11)

### Abutilon hybrid 'Fairy Coral Red'

Flowering maples are undergoing a renaissance. New breeding has them bursting out all over in a wide range of colors. 'Fairy Coral Red' sports countless handsome salmon- to pink-colored flowers. It's your newest favorite plant in your landscape and border plantings. (part to full sun, 12-24", hardy to US Zone 7b-11)

### Hibiscus 'Panama Bronze', PPAF

This "no fuss, no muss" ornamental hibiscus grows to a hardy 4' tall in the UGA Trial Gardens, and is

equally wide. The bronze of its deeply cut foliage – remarkably resembling coveted Japanese maples – remains stable even on the hottest days. A bright-red flower may even spring forth now and again, but are an uncommon sight. Use this ornamental hibiscus as accent plant in the garden, or find a container worthy to hold this beauty. It is a handsome addition to our 'Panama Red' hibiscus introduced last year. (full sun, 3-4' tall, hardy to US Zone 8)

## Springtime Preparations

From *MasterTag*, a vendor of plant tags comes a few numbers for consideration as you prepare your retail area for the spring shopping season. Recognize these are from a firm selling POP (point of purchase) products. Regardless, the words are insightful.

**One-half** of retail products sold have no advertising except what's placed on the package and display at retail.

**Sixty-five percent** of purchases are impulse purchases, with the purchase decision made at the store.

A product has **one-sixth of a second** to get noticed by a customer before the opportunity is lost.

Consumers purchase **80 percent** of what they pick up in a store.

**One-fourth** of all customers equate package appearance with the quality of the product.

Up to **75 percent** of consumers who shop at displays are influenced by those displays on what to purchase.

How are you responding in capturing and retaining customers with POP material?

## *Capsicum chlorosis virus* in Tomato

Walt Nelson

Invasive species continue in the news. In December authorities in India first reported the economically important CaCV (*Capsicum chlorosis virus*). It is already found in Australia, Thailand and China. Symptoms are similar to that of PBNV (peanut bud necrosis virus). Both are tospoviruses of vegetables and legumes. Numerous greenhouse crop liners originate from China. If sanitation practices are not correctly implemented there is potential for both viruses to appear in the U.S.

## Are We the Green Industry?

Walt Nelson

How often have you heard or use the phrase ‘green industry?’ In the world beyond horticulture a reference to a ‘green industry’ usually refers to the environmental impact of a business or industry (contrast smelting versus telephone marketing). Last November many of us attended a horticulture conference at Rochester’s Riverside Conference Center entitled *The Green Industry Conference*. The context of that title refers to the ornamental horticulture industries: landscape, turfgrass, nursery, arboriculture and floriculture.

*As there is chlorophyll in most of landscape horticulture’s product lines, does that make it a GREEN industry?*

What is the difference between horticulture and a manufacturer being a green industry? To those not connected to horticulture the name ‘green industry’ often means how environmentally responsible that business is. Because horticulturists have direct product or service connections with plants, we are a natural in making the most of the name ‘green industry.’ Horticulturists are in businesses dealing with plants AND an environmentally responsible business.

Several opportunities present themselves in consideration for greater use

of a ‘green brand.’ 1) The NYSN/LA or the AN/LA could roll out a ‘green’ protocol. 2) Individual firms could embrace an existing set of practices, such as the US Green Building Council’s LEED [Leadership in Energy and Environmental Design (www.usgbc.org)]. 3) A firm could craft their own guidelines.

The path an individual business takes is at management’s discretion. One could easily start by reviewing elements of the LEED rating system’s website section and develop the firm’s ‘green’ plan. Horticulture elements in LEED start with a sustainable landscape design, and implementing it in a sustainable manner. Elements of a design

include: hardscape, shade trees, turf and their placement. ‘Green’ landscapes give thought to aftercare such as water (gray water?), and pest management (detailed are within the LEED rating system).

Offering environmentally responsible products and services is half of the equation. The business itself could/should also be ‘green.’ Examples from small to large include: compact florescent and or LED lighting in offices and shop, setback thermostats, vehicles using bio diesel, hybrid or even electricity for the estimator’s car.

Value is derived from making a change to a ‘greener’ firm when customers and potential customers learn about the change. The development of a plan calling attention to those changes is as important as the change itself. Start by embedding the change in the policy manual. Out of that follows promotional material describing the firm’s new initiative. At the same time staff are necessarily brought up to speed and they in turn must buy into the change.

Why get on the ‘green’ bandwagon? In the spring of 2007 Cone, a Boston based brand strategy and communications firm conducted an environmentally focused survey reporting:

- 93% of Americans believe that companies have an obligation to help preserve the environment.
- 91% say they have a more positive image of a company when it’s environmentally responsible.
- 71% identify reducing pollution through office and manufacturing operations as being a meaningful corporate action.
- 32% of Americans said they have a heightened interest in the environment compared to a year ago.
- 47% have purchased environmentally friendly products.

Those survey percentages suggest clients and potential clients care about ‘green.’ Aligning your firm with clients’ values is a win for the environment, a win for the customer and a win for the horticulture business.

Stepping into the sustainable environment becomes a statement describing values embedded in the firm. Incremental change is a cautious approach. Evaluating the benefit of early steps provides guidance on how far and fast the change occurs. Contact me to schedule a conversation on your views of a ‘green’ business in the ‘green’ industry.

## A Top Dresser for Tight Spaces

Walt Nelson

During the December landscape roundtable, there was a question about top dressing machines for landscape situations. One attendee lead me to the Power Top Dresser, from R&R Power Turf

The self propelled unit holds up to 10.5 cubic feet (250 pounds) of material. A full hopper typically unloads in about 5 minutes, depending on the depth of application. It narrow foot print (35 inches) allows for typical gateway travel. Owner, Rob Pleli indicated an individual could top dress approximately 65,000 square feet of residential property in a day.

His firm offers technical, sales and marketing support to its customers. Rob firmly believes a quality compost as well as seed is critical in a successful top dressing business model.

The machine is capable of dispensing a wide array of material including compost, top soil, sand or pea gravel. Material depth may be adjusted between 0.125 and 1.5 inches. As a drop spreader, material is not broadcast to areas you do not want covered.

A four horsepower Honda engine drives both the agitator and the wheels. It will apply material in both directions, allowing one to get into tight corners on pneumatic tires.

I would not be surprised to see this machine in tool rental stores in the near future. For more information call 800-965-8873 or visit them on the web at [www.topdresser.ca](http://www.topdresser.ca).



## 10 Critical Decisions for Your Firm

Which of these 10 critical decisions do you need to make for your firm?

- What is your vision of the future in terms of continuing as a family business?
- What actions are important to minimize risk by anticipating possible worst cases?
- How will you groom young family members as part of your horticulture firm?
- What talents and experiences does the firm need for future success?
- What employment opportunities will you offer to family members and what expectations will you have?
- What will be the role of non-family employees, and what will they need to do their jobs?
- Who will own the business next and how will ownership transfer?
- Where might a strategy for selling come into play?
- How will senior firm members move to sharing key decisions?
- What will strengthen the family glue and keep you headed toward a ‘family together’?

## Recycling Horticulture Plastic

Are customers asking you to accept back the containers plants you sold them? Options include accepting the plastic and disposing of it yourself as a good will gesture. Few professional horticulturists want to reuse these plastics.

There are recyclers that will take horticulture plastic. Most have a significant minimum quantity. The best opportunity to take advantage of this is as a group effort. This could be informal or using an existing organization such as the GardenScape Professionals.

An Ontario firm, CPRA, Mississauga ON has, in the past, accepted and paid for used plastic. Although this may not be case currently, there is a Rochester firm strongly considering entry into the marketplace. If you are interested in pursuing recycling horticulture plastic (film or containers) contact CCE. With sufficient interest we will be able to pool the material for the betterment of both your business and the environment.

*Although some are already tired of hearing about SUSTAINABLE businesses, buyers are seeking to do business with such firms.*

## Chili Thrips Arrive in Texas

Walter Nelson

From Texas A&M University comes word that Chili thrips have arrived in landscapes in the Lone Star State. It attacks a number of landscape and greenhouse crops. Because of the large host range, the pathway to New York is rather easy to envision.

It is known to feed upon 's forty plant families, including many landscape plants. Susceptible plants include roses, ligustrum, lisianthus, pittosporum, herbs including sweet basil and begonia. There are others, but in Florida, where the pest was discovered two years ago, these are plants where it is commonly observed.

Although it is susceptible to several insecticides, none provide long term control. Outdoors applicators were making applications every two or three weeks, as a new flush of growth appeared.

The pest is a forage feeder, preferring new leaves and buds. Unlike aphids, another common plant pest, chili thrips do not use a proboscis to puncture a plant and suck out juices. Instead, they use a "rasping" motion to wear away the outer tissue of leaves and buds. The thrips then suck sap from the wound. This feeding action causes a distinctive brownish-bronze discoloration in leaves and buds.

The damage is often more than just unsightly. Damaged rose buds, for example, yield misshapen flowers or fail to bloom.

The pest is not just a risk to home gardens and landscapes, grapes, tomatoes and hot peppers. The introduction of the pest in Texas has been traced to garden retail imports.

Older rose varieties require more pesticide applications, thrips are not as much of a problem. It is the newer disease resistant varieties, requiring fewer pesticides that are being damaged by the chili thrips.

Chili thrips are about two millimeters long and best identified by an entomologist. Careful monitoring should first alert one to pest problems such as thrips.

View pictures of chili thrips on the web at [chilithrips.tamu.edu](http://chilithrips.tamu.edu)

## Growing the Business of Horticulture

Walt Nelson

This is the first of several anticipated case studies of local firms as they grow and change their businesses. There are several reasons for growing your horticulture business. You may have key employees or family you want to retain or invite into the enterprise. Net revenue may not be meeting your goals or demands. It may be a sensible action in light of the business' mission.

For Laurie and Al Broccolo a reason for a new enterprise was the later. The Broccolo firm is driven by the desire to improve our environment. The landscape segment is the primary driver of the business addressing that desire. Green roofs are a natural fit to their 'green'-themed business. Early on they ask themselves whether the green roof activities could make a positive difference in their business and the horticulture industry generally. As with any new enterprise one weighs costs and returns then consider the risks involved with the new venture. They used the same process when they ventured into the IPM arena. There were skeptics watching that enterprise, a project that is a generally accepted practice today.

Green roofs are not 'new,' although today's technology offers new innovations. A green roof offers plants as a roof choice in addition to the more traditional shingles, tar and stone or rubber on the top surface of a roof. This facet of their firm is driven by a desire to grow the overall Broccolo Tree & Lawn Care business. They have no intentions to abandon any current part of the firm.

What do they see as the potential? As in other businesses dealing with 'weighty' products, the logical conclusion is within the radius of their existing horticulture enterprises. Today's web marketplace extends their horizons to...?

They chose to align themselves and become certified installers with the Rochester firm

*Green Living Technologies*, a manufacturer, designer and consulting firm offering products, services and warranties used in the construction of a green roof. That firm offers national exposure and also has a network of plant material growers. This option offers broader market exposure and opportunity for technical resources. With Al's construction background, the existing fleet of equipment and willing Broccolo staff, the investment early on is in training, certifications and marketing. Although Al is very comfortable in the construction arena, having someone else to talk with about a green roof project is a great asset.

At this time the Broccolos are partnering with plant suppliers. In the future they could become growers of green roof plant material in another business expansion. Another positive reason for expanding the business with a green roof enterprise was it did not require significant investment in new physical equipment (trucks and the like).

They offered up their own flat roof as a workshop site for training installers. That exposure led to installation queries. Locally there is now a green roof on the administration building at the Seneca Park Zoo jointly installed by Green Roof Technologies and Broccolo. Just as plants grow on a green roof, the Broccolos envision growth in this new business venture.

As talk about changing your firm warms, assess the business' strengths; inventory its equipment and dream about where you want to be in the future. Mapping your assets and goals provide a foundation for future growth. Contact me in scheduling a conversation about possible changes in your firm (without your permission those conversations remain confidential). If you believe there are lessons learned from your business and want to grow a healthier green industry by sharing them with colleagues, drop me a line.



## Possible Program Impacts at CCE Monroe Programs

CCE of Monroe County has received an appropriation of \$225,000 for base budget support for 2008. In order to balance the budget, the Board of Directors of CCE made the decision that effective June 1st, 2008 it must eliminate one position in the 4-H program and its Commercial Horticulture program. The June 1st date was identified to provide a cushion of time for the organization to secure other resources.

Should that happen, some, or all of the current plans for program reductions may not be necessary. J.C. Shaver, Interim Executive Director, says that the board had only a few "really bad" options that would eliminate enough expenses for the organization to balance the budget as required.

CCE has been shoring up the budget by drawing down its reserves each year over the past several years. Even with the above cuts, it will use about \$40,000 of reserves in 2008 to keep from cutting additional capacity.

During February and early March the organization will be meeting with constituents to discuss how these reductions will impact programming. Additionally, time will be devoted to how program constituents can help as planning for the future of CCE in Monroe County focuses on rebuilding.

## Floriculture Survey

The National Agricultural Statistics Service is conducting the annual Floriculture Production Survey this winter. Hopefully those who received the survey have returned them, to avoid a reminder to do so.

The annual survey of floriculture production provides the only detailed information about the production and sales of these items and the important contribution they make to the agricultural economy of New York State. This survey is also conducted in 35 other major producing states.

New York's floriculture production in 2006 ranked fifth in the nation for all commercial sales, which totaled \$207 million for selected cut flowers, bedding plants, potted flowering plants, and foliage plants, according to Stephen Ropel, Director of USDA's National Agricultural Statistics Service, New York office.

Producers with questions may call Bill Blackson at 1-800-821-1276.