September-October Programs in our region:

- New York ReLeaf, Streets and Sidewalks
- 10th Annual NYSTLA New York Botanical Garden Field Day
- UMass Green School
- Gala Evening to Honor Dr. Frank Rossi
- Northeast Greenhouse Conference and Expo

Articles

- Trees and Shrubs with Ecto mycorrhizae get a leg up with elevated CO₂
- Combined Control Tactics Remove Kudzu Faster
- New NYS DEC Pesticide Database
- Pesticide Update: Recent NYS DEC Registration Approval recommendations:
  - Recent 2(ee) and Emergency (section 18) exemptions.

Monthly Features

- About Pesticide Certification
- County Commercial Horticulture Educators and Contact Information
- Green-Industry Professional Resources
September-October Programs

**New York ReLeaf Streets and Sidewalks: Streets without Trees and Incomplete**
*When:* Thursday September 22  
*Where:* Kaplan Hall, SUNY Orange, Newburgh NY  
*Program:* Make your streets complete by incorporating trees into planning and creating the best conditions for trees and people to thrive. Enhance tree pits while improving sidewalks to make your community walkable. This workshop will include indoor presentations and a walking tour of Newburgh projects. It is for professional arborists, landscapers, municipal staff, foresters and tree enthusiasts.  

**10th Annual NYSTLA New York Botanical Garden Field Day**
*When:* September 27th, 8am to 4pm  
*Where:* NY Botanic Garden, 2900 Southern BLVD, Bronx, NY  
*Program:* Join NYSTLA for the 10th Annual New York Botanical Garden Field Day. Registration begins at 7:30 am. Topics include plant health and nutrition, managing deer in landscapes, Insect pests of ornamental plants, and ticks, to name a few. Plus a walking tour of the conifer section. Continental Breakfast and Lunch included! Approved to earn 4 ISA CEU's, 5 NYS DEC credits and 10 NJ DEP credits. The New York Botanical Garden is within surprisingly easy reach from highways and is located at 2900 Southern Blvd., Bronx, NY  

**UMass Green School**
*When:* Monday, October 24 to Monday, December 12 (Multiple dates)  
*Where:* Doubletree Hotel, 11 Beaver St, Milford, MA 01757  
*Program:* UMass Extension’s Green School is a comprehensive course for horticultural professionals who wish to gain an understanding of economically feasible and environmentally responsible plant and land care practices and the relation of those practices to the protection of the environment. This course is designed for practitioners such as landscapers, lawn care specialists, nursery operators, sports field managers, public and private grounds managers, arborists and others in the green industry. Both experienced professionals as well as those entering the green industries benefit from this course.  
*Find Full Schedule here:* [http://ag.umass.edu/landscape/education/umass-extensions-green-school](http://ag.umass.edu/landscape/education/umass-extensions-green-school)  
*Registration:* [http://ag.umass.edu/landscape/education/umass-extensions-green-school](http://ag.umass.edu/landscape/education/umass-extensions-green-school)

**Gala Evening to Honor Dr. Frank Rossi**
*When:* Tuesday, November 1, 2016, 7:00 p.m.,  
*Where:* Trattoria 160 Marble Ave., Pleasantville, NY  
*Program:* Join NYSTLA for a Gala Evening honoring one of the Horticulture Industry’s great educators, Dr. Frank Rossi Associate Professor Turfgrass Science, Cornell University who will speak on Lawn BMP’s to protect water quality. Earn 1 NYS DEC Credit in categories 3a, 3b, 10, 25  
*Registration:* RSVP by contacting NYSTLA at 914-993-9455 or admin@nystla.com

*Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities*
Northeast Greenhouse Conference and Expo
When: November 9-10th
Where: Boxborough, MA
Program: Join other growers and retailers for the Northeast's premier floricultural trade show! This biennial event is hosted by New England Floriculture, Inc., which represents the greenhouse grower associations of the six New England states plus New York. NEF’s members collaborate with Cooperative Extension specialists from those seven states to develop the conference. Education, tradeshow, networking, harvest market lunch, and herb-infused cocktail hour! More info here: [http://www.negreenhouse.org/html/show_info.shtml](http://www.negreenhouse.org/html/show_info.shtml)

Articles

Trees and Shrubs with Ecto mycorrhizae get a leg up with elevated CO2
You have probably heard of Mycorrhizae, fungi that form a relationship with tree roots. There are two main types out there that would associate with the ornamental plants we use in our landscapes: Ecto-mycorrhizae and Arbuscular-mycorrhizae. Scientists have observed that some trees do better in elevated CO2 environment than others and they have determined that those that form relationships with ecto-mycorrhizae seem to have a leg up. While elevated CO2 spurs growth in woody plants, if there is not enough available nitrogen to support that growth the plant can’t take advantage of the CO2. That’s where the ecto-mycorrhizae come into play. Essentially they help the tree hunt-down the nitrogen and make it available for the tree roots to take up. In exchange these fungi get sugars, and a handy structure in which to live (tree roots).

Turns out not all fungi are created equal. “Ectomycorrhizal fungi, in contrast, are limited in their ability to take up Phosphorus from the soil, but are especially effective in taking up Nitrogen. Most herbaceous species show a partnership with arbuscular mycorrhizal fungi, while the majority of needle-leaved trees are associated with ectomycorrhizal fungi. Among deciduous trees, some, like maple and cherry, live in symbiosis with arbuscular mycorrhizal fungi, while others, like beech and oak, live with ectomycorrhizal fungi.”

So as we look to the future and the impacts of forests as a carbon sink, the relationship that trees have with these fungi are very important. Turns out, in elevated CO2 atmospheres, our Northern Hardwood and Boreal forest may be very important indeed. Article excerpts from: University of Antwerp [https://www.uantwerpen.be/popup/nieuwsonderdeel.aspx?newsitem_id=2129&c=HOMEEN&n=101352](https://www.uantwerpen.be/popup/nieuwsonderdeel.aspx?newsitem_id=2129&c=HOMEEN&n=101352)
Original Research: [http://science.sciencemag.org/content/353/6294/72](http://science.sciencemag.org/content/353/6294/72)

Submitted by: Dr. Elizabeth Lamb, NYS Integrated Pest Management Program Ornamentals IPM Coordinator and Greenhouse Vegetable IPM Specialist, [http://nysipm.cornell.edu/](http://nysipm.cornell.edu/)
Combined Control Tactics Remove Kudzu Faster

(Eds Note: Kudzu has been recorded in several counties in the lower Hudson Valley, and just recently in Putnam. So be on the lookout for its sweet scented flowers and rampant growth, now!)

By Sandra Avant, ARS Office of Communications.
https://agresearchmag.ars.usda.gov/2016/jul/kudzu/

Kudzu was introduced with good intentions into the southeastern United States in the late 1800s. The invasive weed was first planted as a home ornamental, then as a forage crop for livestock, and finally, as a way to control soil erosion.

What we didn’t know back then is that this native Asian plant doesn't control erosion; instead, it hides erosion while quickly gobbling up surrounding landscapes. Kudzu damages or kills other plants by smothering them under layers of leaves.

"Gullies still form underneath kudzu. You just can't see them," says plant pathologist Mark A. Weaver, at the Agricultural Research Service’s (ARS) Biological Control of Pests Research Unit in Stoneville, Mississippi. "These gullies are evidence of large-scale, uncontrolled soil erosion."

Weaver and his colleagues are looking for quicker and more effective ways to control kudzu, which typically takes about 10 years of persistent herbicide applications to eradicate. Recently, they developed effective management programs, including one that uses an ARS-developed bioherbicide, mowing, and revegetation.

"We didn't just kill the kudzu and leave the soil open for erosion," Weaver says. "At the same time, we achieved a good establishment of a desirable native vegetation. In this case, we planted switchgrass."

Land infested with kudzu has no value, Weaver says. The plant disrupts native ecosystems, threatens natural resources, and inhibits use of forest land, particularly in Mississippi, where kudzu is pervasive.

"The faster you can get rid of kudzu, the faster you can start doing something positive with the land-establishing forestry, wildlife habitat, or recreational land," Weaver says. "We wanted to know if we could achieve an even higher rate of kudzu suppression and possibly eradicate it by combining successful control programs."

In his study, Weaver created research plots at three different infested sites. He repeated a series of treatment programs for 2 years. He tested the effectiveness of four different commercially available herbicides, either individually or in combination, and a bioherbicide treatment. "We achieved a
high level of suppression quickly and effectively on these mini plots after just 1 year," Weaver says.

In the second year, an even higher percentage of kudzu was killed using the herbicides, which are tolerated by some crops and are compatible with livestock grazing. "Results of the integrated herbicide programs were excellent: 99- to 100-percent reduction in kudzu," Weaver says. With the treatment that involved applying a bioherbicide, mowing, and revegetation, Weaver was able to kill 91 percent of kudzu after 1 year and 95 percent after 2 years. The research showed that a variety of methods, either alone or together, can rapidly kill kudzu. "But that's not to say that these treatments would work on all sites every year and that the kudzu cannot come back," Weaver says. Longer-term studies are needed to confirm that these high-level suppressions will last.

"Combined Control Tactics Remove Kudzu Faster" was published in the July 2016 issue of AgResearch Magazine.

Submitted by Gerald G. Giordano, Senior Horticulture Consultant/Extension Community Educator, Cornell Cooperative Extension of Westchester County

New NYS DEC Pesticide Database
The NYS Department of Environmental Conservation (NYSDEC) has announced that their new online pesticide product registration database is available. The new database (http://www.dec.ny.gov/nyspad/products) replaces the PIMS system hosted by Cornell.

Please note that PIMS is no longer updated with current product registration information, including labels. Those who need to look up current product registration information for New York State will now need to use the NYSDEC’s database.

Please contact the NYSDEC Pesticide Product Registration Section at ppr@dec.ny.gov or (518) 402-8768 if you have any questions or comments regarding this new database.

Pesticide Updates:
FIFRA Emergency Exemption (Section 18) Approval - Bifenthrin for BMSB in Columbia, Dutchess, Orange, and Ulster Counties
The US Environmental Protection Agency has granted New York State a FIFRA Section 18 specific exemption for the use of Bifenture 10DF Insecticide/Miticide (EPA Reg. No. 70506-227), Bifenture EC Agricultural Insecticide (EPA Reg. No. 70506-57), and Brigade WSB (EPA Reg. No. 279-3108) to control brown marmorated stink bug on apples, peaches, and nectarines in Columbia, Dutchess, Orange, and Ulster Counties in New York.

Please note the following:
- The Section 18 labels restrict use to Columbia, Dutchess, Orange, and Ulster counties. Use in any other counties is prohibited.
- The exemption is valid through October 15, 2016.
- Bifenture 10DF, Bifenture EC, and Brigade WSB are restricted-use pesticides.
- Aerial application is prohibited.
Users must have a copy of the appropriate Section 18 exemption in their possession at the time of use. Users must also follow all applicable directions, restrictions, and precautions on the primary product label.

Copies of the Section 18 authorization letter and the approved labels are available in the regulatory section of our website. Copies of the approved labels should be posted to PIMS shortly.

The New York State Department of Environmental Conservation recently approved the following 2(ee) recommendation:

- **Duet Dual-Action Adulticide** (EPA Reg. No. 1021-1795-8329) – for application by backpack or hand-held ULV equipment to control adult mosquitoes in urban areas.
- **Criterion 2F insecticide** (EPA Reg. No. 432-1312) – For basal bark application to control hemlock woolly adelgid in Eastern hemlock. This recommendation is posted to PIMS.
- **Roundup Pro Herbicide** (EPA Reg. No. 524-475), **Roundup Custom for Aquatic & Terrestrial Use** (EPA Reg. No. 524-343), **Rodeo** (EPA Reg. No. 62719-324), and **Accord XRT II** (EPA Reg. No. 62719-556) – For use against the unlabeled pest sticky sage (*Salvia glutinosa*).

*Remember* – users must have a copy of the approved 2(ee) recommendation in their possession at the time of use. A copy of these recommendations are posted to our website. The recommendation will also be posted to PIMS shortly.

Reprinted from:
Mike Helms, Extension Support Specialist/Managing Editor - Cornell Guidelines
Pesticide Management Education Program (PMEP)
Cornell Guidelines Website: [http://ipmguidelines.org](http://ipmguidelines.org)
PMEP Website: [http://pmep.cce.cornell.edu](http://pmep.cce.cornell.edu)

### About Pesticide Certification

If you apply pesticides, including weed-killers, weed and feed products, insecticides, fungicides, or tick control products to customer's properties for hire, you or someone in your company must be a New York State Certified Pesticide Applicator through the New York State Department of Environmental Conservation (NYS DEC) and have their business registered.

There are three levels of commercial certification: applicator, technician, and apprentice:

**For Commercial Applicators**

To be eligible to take the exams to become certified, you must meet one of the following requirements:

3 out of the past 5 years of verifiable experience as an apprentice working in the category applicant is seeking certification in; or 3 out of the past 5 years as a certified private applicator in a corresponding private category; or Certification in another State with which New York has reciprocity; or if seeking certification in the Sales Category - At least 3 years experience in the sale of pesticides, or can demonstrate, through applicable training certifications or education degrees, that one possesses appropriate technical background.

**Certified Pesticide Technician:** be at least 17 years of age. 2 years of verifiable experience as an apprentice; or Completion of a 30-hr. training course, approved by the NYS DEC or a baccalaureate or associate degree from an accredited college or university in the area seeking certification. These are offered at the following: **30 Hour Courses:** Pest Management Training Center (B. H. Stangel, Inc.): (845) 357-7734, barrypmtc@optonline.net, or visit [www.pestmanagementtraining.com/s/](http://www.pestmanagementtraining.com/s/). Advanced Technical Consultants (ATC): Kevin Hurley, 845-

Technicians, once certified, desiring full applicator status the following documentation is required: a letter indicating 2 yrs. of experience or 1 yr. of experience plus 12 recertification credits.

Experience and recertification credits must be category or sub-category specific.

**Pesticide Apprentice:** Must be at least 16 years of age; Must receive 40 hours of pesticide use experience under supervision of a certified applicator and a minimum of 8 hours of instruction on topics outlined in Section 325.18 of Part 325 Rules & Regulations relating to the application of pesticides, before being able to apply general use pesticides under the off-site direct supervision of a certified applicator. Documentation of the above must be maintained by the certified applicator, and include: name & address of apprentice; date(s) of instruction or observation; content of training and certification category; instructor's name and certification identification number; and an evaluation of the competency of the apprentice.

**For Private Applicators**

Must be at least 17 years old. Have at least one year of full-time experience within the last three years in the use of pesticides in the category in which certification is requested --OR Has completed a 30-hr. training course, or has received an associate's or higher level college degree in the area of which certification is requested.

For further information on eligibility rules and regulations, and fees, contact the NYS DEC Region 3 Pesticide Staff at (845) 256-3097. Eligible candidates for certification must and pass two examinations, administered by the NYSDEC. Once you determine you are eligible for certification, contact -your county's NYS DEC office for information on registering for the exams.

NYS DEC Region 3 can be reached by calling (845) 256-3097.

**Cornell University Cooperative Extension County Commercial Horticulture Educators**

*Dutchess:* Stephanie Radin, sradin@cornell.edu, 845-677-8223 x 104  
*Orange:* Rosemarie Baglia, rsb22@cornell.edu, 845-344-1234  
*Putnam:* Jennifer Stengle, jjs95@cornell.edu, 845-278-6738  
*Rockland:* Anne Christian, alc44@cornell.edu, 845-429-7085  
*Ulster:* Teresa Rusinek, tr28@cornell.edu, 845-340-3990  
*Westchester:* Gerald Giordano, ggg3@cornell.edu, 914-946-3005

**News and Educational Resources:**

**Free Newsletters**

Greenhouse IPM update: Elizabeth M. Lamb eml38@cornell.edu  
Christmas Tree IPM update: Elizabeth M. Lamb eml38@cornell.edu  
Taking Root Blog/Newsletter https://nysufctakingroot.wordpress.com/

**Subscription Newsletters:**

Cornell Turf Program: [http://www.hort.cornell.edu/turf/](http://www.hort.cornell.edu/turf/)  
Subscribe to Turf Short Cutt, RSS Feed, Blog: [http://www.hort.cornell.edu/turf/pdfs/shortcutorder.pdf](http://www.hort.cornell.edu/turf/pdfs/shortcutorder.pdf)

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Newsletter Subscription: [http://branchingout.cornell.edu/Subscriptions.html](http://branchingout.cornell.edu/Subscriptions.html)

[http://enych.cce.cornell.edu/](http://enych.cce.cornell.edu/)  
Enrolled Newsletter Subscription: email mmp74@cornell.edu
Free Weekly Updates:

- USDA Crop/Weather/Livestock updates: chose your crop, Ag industry or just the weather and email updates will be sent weekly: http://www.nass.usda.gov/Statistics_by_State/New_York/Subscribe_to_NY_Reports/
- Forecast: weekly updates for Turf Industry http://www.nrcc.cornell.edu/grass/

Mention of trade names and commercial products is for educational purposes; no discrimination is intended and no endorsement by Cornell University Cooperative Extension or Cornell University is implied. Pesticide recommendations are for informational purposes only and manufacturers' recommendations change. Read the manufacturers' instructions carefully before use.

Cornell University Cooperative Extension and Cornell University assume no responsibility for the use of any pesticide or chemicals. Some of the links provided are not maintained by Cornell University Cooperative Extension and Cornell University. Cornell University Cooperative Extension and Cornell University are not responsible for information on these websites.

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If you wish to be removed from future mailings, please contact the office in your county.

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