Cornell University
Cooperative Extension

Hudson Valley Horticulture

Cornell University Cooperative Extension of the Hudson Valley

~~~Commercial Horticulture Electronic Newsletter~~~

Volume 16, Issue 6

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Edited by Jen Stengle, CCE Putnam & Jerry Giordano CCE Westchester

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July-September Programs

Senator Gillibrand Farm Bill Round Table

When: Friday July 22nd at 2:15 pm
Where: Fishkill Farms, 9 Fishkill Farm Road, Hopewell Junction, NY 12533
From Press release/Invite: "Over the next few years, Congress will be debating a new Farm Bill, and U.S. Senator Gillibrand wants to make sure it delivers for you and your community. To ensure that the Farm Bill is right for New York, Senator Gillibrand is hosting a listening session on Friday, July 22, at Fishkill Farms. You are invited to this roundtable discussion focused on key areas of the Farm Bill that will have a major impact on New York. This includes access to financing, new market opportunities, assistance for specialty crops, investments in renewable energy, as well as other issues and priorities you want to see written into the bill.
This is also an opportunity for you to hear updates on other agriculture priorities for legislation, programs and initiatives that Senator Gillibrand is currently focused on as a member of the U.S. Senate Agriculture Committee."
RSVP: HVRSVP@gillibrand.senate.gov

2016 IPM In-depth Hands-on Greenhouse Workshop

When: July 28th, 2016 10:45am to 4:30pm
Where: Room G22 Plant Science Building View map. Cornell University Campus, Ithaca NY
Program:

- **The Doctor is IN:** Bring plant samples with pest, disease, or nutrient issues. We'll try to determine the problems and discuss effective management plans.
- **Minuscule Mites:** Spider mites are common pests of many greenhouse crops, and are definitely small. But there are other even tinier mites that also cause problems. Broad mites and cyclamen mites are among these tiny terrors, and have become more common in recent years. We'll take a very close look at these little guys, learn how to identify them, and the damage they cause. We'll learn how they live, how they can spread, and what can be done to manage them.
- **Beyond Liquid Feed:** There are many organic and slow release fertilizer products on the market – but what do you need to know to choose the one for you? Attendees will see examples of ornamental and vegetable bedding plants grown with several different products. Learn how these fertilizers can reduce nutrient leaching and affect insect and disease pressure. Practical considerations such as application rates and costs will also be discussed.
- **Vicious Viruses - Greenhouse virus diseases and their control:** From spots to mosaics, the symptoms of viruses on annuals and perennials will be reviewed. Participants will be able to examine infected plants and run their own tests to diagnose virus diseases. We'll discuss how viruses spread and why insect management can be essential to controlling certain viruses.

Registration: 2 ways to register (deadline is Friday, July 22):
Register online, pay with credit card.
Call Betsy Lamb at 607 254-8800

NYS DOT Rules and Regs & the Impact of Whitetail Deer

When: Tuesday August 2nd, 6:30 pm
Where: Candlelight Inn, Scarsdale, NY (Registration includes BBQ dinner!)
Program: Joe Havranek NYS DOT Inspector will give an update on NYS DOT Rules and Regulations with a mock inspection. Have your questions answered during a Q&A Session.

Chris Markham, NJ Deer Control, will be talking on the historical & biological look at the tumultuous relationship between rural & suburban homeowners with the White-Tailed deer in the mid-Atlantic region, as well as the negative impacts on our properties and natural ecosystems created by it's overabundance. He will discuss small-scale deterrents (plants, fencing, sound, repellants) as well as the commonly used plants deer love.

Joe Havranek NYS DOT Inspector will be providing an update on the latest NYS DOT rules and regulations AS WELL AS doing a mock inspection. Get the information you need so you are confident you're compliant during an inspection.

NYS DEC CEUs 1 NYS DEC CEU (in categories 25, 3A), 1 L/A HSW CEU, 2 NJ DEP CEU's (in category 7A)
Register: Registration required (914)993-9455 admin@nystla.com
www.nystla.com

2016 Cornell Floriculture Field Day

When: August 9th, 2016 8am to 5pm
Where: Cornell University and Bluegrass Lane, Ithaca NY
Morning Program (8 a.m to 12:30 p.m.),Stocking Hall - Note new location. View map.

- Garden Retail is Changing, It's Time to Adapt and Prosper - Carol Miller, Editor Greenhouse Grower Retailing and American Farm Marketer
- *Bees, Bugs, Blooms - Creating Pollinator Friendly Landscapes - Constance Schmotzer, Consumer Horiculture Educator, Penn State
- *Updates from New York State Department of Agriculture and Markets - Division of Plant Industry, NYS Dept. Ag. And Markets
- *Methods for Managing Deer Damage to Plants and Associated Impacts - Dr. Paul Curtis, Department of Natural Resources, Cornell University
- *Deer resistant plants - Mark Bridgen, LIHREC/SIPS

Afternoon Program (1 p.m. to 5 p.m.), Bluegrass Lane

Lunch
Container contest
Walkabouts:

- *Alternatives to Invasive Plants - Brian Eshenaur
- * Deer Resistant Plants/Pollinator Friendly Plants - Mark Bridgen & Connie Schmotzer
- Mixed flower and vegetable containers - Cheni Filios, Product Line Manager-Vegetables, PanAmerican Seed. (View 2015 mixed container trials.)
- View annual and substrate trials at your leisure - Trial manager Kendra Hutchins will be on-hand to answer your questions. (View top performers of 2015 annual flower trials)

Ice cream social
DEC pesticide recertification credits available for some session.
For more details view:
http://www.greenhouse.cornell.edu/calendar/floriculture_field_day.htm

Register
Register online, pay with credit card.
Download, print and mail registration form, pay by check.

Save the Date! NYS IPM Climate Conference - Climate, Weather, Data: Protecting Our Crops and Landscapes

When: August 15, 2016, 9:00-4:15
Where: Cornell Cooperative Extension, 24 Martin Road, Voorheesville, NY 12186
Cost $45 per person, includes lunch and breaks
Program: With all the talk about climate change you might be wondering how it will affect food production, pests, and even landscapes - and what you can do about it.

A wide variety of speakers from NYS and the Northeast will provide background information on the current state of knowledge on climate change and changes in our weather patterns, and how collecting climate and weather data can help us predict and manage pests. Open discussion sessions are included so you can ask your own questions. The final agenda will be available soon, so stay tuned!

Registration information, a map, and an agenda can be found at the Climate, Weather, and Data website
Cost $45 per person, includes lunch and breaks
Questions to Amanda Grace at arw245@cornell.edu or 315 787-2208.

Articles

The *New York State Pollinator Protection Plan* Booklet is Available!

Too hot to think? Turn up the fan and start reading! New York State's Pollinator Protection Plan is finished! It took a lot of people a lot of time to create. What does it mean for you? It has Best Management Practices for a lot of groups including Pesticide Users, Landowners/Growers, State Agencies, and Beekeepers. It includes funding for pollinator protection and IPM, invasive species prevention and eradication and farmland protection, research and outreach.
Check it out here: http://www.dec.ny.gov/docs/administration_pdf/nyspollinatorplan.pdf

Submitted by: Dr. Elizabeth Lamb, NYS Integrated Pest Management Program Ornamentals IPM Coordinator and Greenhouse Vegetable IPM Specialist, http://nysipm.cornell.edu/

Combined Control Tactics Remove Kudzu Faster

(*Eds Note: Kudzu has been found in several counties in the lower Hudson Valley*)
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.

ARS plant pathologist Mark Weaver mows kudzu in Mississippi

"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

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Bees' Ability to Forage Decreases as Air Pollution Increases

Excerpted from Liam Jackson, July 6, 2016

UNIVERSITY PARK, Pa. -- Air pollutants interact with and break down plant emitted scent molecules, which insect pollinators use to locate needed food, according to a team of researchers led by Penn State. The pollution-modified plant odors can confuse bees and, as a result, bees' foraging time increases and pollination efficiency decreases. This happens because the chemical interactions decrease both the scent molecules' life spans and the distances they travel.

While foraging for food, insects detect floral scent molecules in the air. Wind currents can carry these molecules up to thousands of feet from their original source to where bees have their hives.

"Many insects have nests that are up to 3,000 feet away from their food source, which means that scents need to travel long distances before insects can detect them," said Jose D. Fuentes, professor of meteorology and atmospheric science, Penn State. "Each insect has a detection threshold for certain kinds of scents and they find food by moving from areas of low concentrations of scents to areas of high concentrations."

Plant-emitted hydrocarbons break down through chemical interactions with certain air pollutants such as ozone. This breakdown process results in the creation of more air pollutants, including hydroxyl and nitrate radicals, which further increase the breakdown rate of plant odors.

The researchers sought to understand how these chemical interactions, which start with the presence of air pollutants, would impact bees' ability to find food. They first estimated the changes in concentrations of flower scents as a result of air turbulence and chemical interactions using a computer simulation, which allowed them to track the concentration and movement of multiple plumes of scents from different flower beds over time. Then, the researchers ran 90,000 simulations representing various bees' foraging and movement patterns amid differing scent levels modified by air pollution and diluted by wind speeds.

A bee gathers nectar from a flower, Image Courtesy of USDA forest Service

The team reported in the current issue of Atmospheric Environment that, as air pollution increases, hydrocarbons' lifetime and travel distance decreases. For example, at 60 parts per billion ozone levels, which the U.S. Environmental Protection Agency considers a 'moderate' level, the researchers found that enough chemical changes took place to thoroughly confuse bees and hinder their ability to identify the plumes of floral scents they needed to locate food.

The scent molecule alpha-pinene, which survives nearly 40 hours in an ozone-free environment, survived fewer than 10 hours when ozone rose to 60 parts per billion and only 1 hour when ozone was at 120 parts per billion. Another molecule, beta-myrcene, which travels more than 3,000 feet in an ozone-free, windy environment, traveled an average of 1,500 feet when ozone was 60 parts per billion and, when ozone rose to 120 parts per billion, most traveled fewer than 1,000 feet.

The changes in air chemistry impacted the number of bees able to detect food sources in a given time frame. In an ozone-free environment, it took 10 minutes for 20 percent of foragers to

find the scent molecule beta-caryophyllene. When ozone rose to only 20 parts per billion, it took 180 minutes for the same amount of bees to find the scent. The team found similar results for the six different scent molecules they analyzed.

"We found that when we confused the bees' environment by modifying the gases present in the atmosphere, they spent more time foraging and would bring back less food, which would affect their colonies," said Fuentes. "It's similar to being asked to get a cup of coffee at the nearest cafeteria while you are blindfolded. It will be hard to locate the coffee shop without using visual cues. The same could happen to insect pollinators while foraging for food in polluted air masses."

Read more here: http://news.psu.edu/story/416642/2016/07/06/research/bees-ability-forage-decreases-air-pollution-increases

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

Toni DiTommaso, Weed Scientist, wins excellence in IPM award

By Mary Woodsen, ITHACA, NY*:*

If two words could sum up Toni DiTommaso's qualities as professor of weed science at Cornell University, "unbridled enthusiasm" — words from a nomination letter — fit the bill. Yet it's not just his innovative Integrated Pest Management (IPM) approaches to dealing with weeds that clinched DiTommaso's Excellence in IPM award, which he received on July 14, 2016.

Colleagues and former students alike repeatedly cite the impact DiTommaso's contagious love of learning has on their lives — and often their livelihoods. For many, the roots lie in Cornell's IPM course that DiTommaso resurrected in 2002 and has taught since then with professor of entomology John Losey.

"To say that Toni has 'educated others about IPM' and 'promoted IPM and bolstered the adoption of IPM practices,' two criteria for earning the award, would be a vast understatement," says crop-science professor William Cox, a longtime colleague. "I can't emphasize enough the enormous impact that Toni has had on Cornell students who are now growers or consultants."

Read more here: https://nysipm.cornell.edu/about/we-give-awards/2015-excellence-ipm-award-winners/toni-ditommaso

Submitted by Jen Stengle, Resource Educator, Cornell Cooperative Extension of Putnam County

Emerald Ash Borer Found in Six New Jersey Counties

New Jersey Department of Agriculture officials reported the emerald ash borer (EAB), an invasive beetle that attacks and kills ash trees, is active in 14 towns in six counties in NJ.

In an effort to protect the state's ash trees, the Department of Agriculture initiated the field release in 2015 of biocontrol parasitoids for emerald ash borer in four locations in Bridgewater, Hillsborough, Franklin and Ewing Townships. Releases of almost 9,000 larval and 1,600 egg EAB parasitoids were made in wooded ash sites containing low levels of EAB in September in an effort to help suppress building EAB populations. The beneficial insects were supplied by the U.S. Department of Agriculture's EAB Biocontrol Laboratory in Brighton, Michigan.

Read more here: http://sebsnjaesnews.rutgers.edu/2015/10/tree-killing-emerald-ash-borer-spreads-to-five-new-jersey-counties/

State and municipalities are treating some trees:
http://www.northjersey.com/news/environment/nj-launching-defense-against-an-insect-menace-1.1602557

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
PMEP Website: http://pmep.cce.cornell.edu

Regional Updates:

Report from Westchester: Now is the Time to think About Drought Resistant Landscapes and Watering Your Trees

According to the U.S. Drought Monitor's latest map release as of July 14, 2016, most of Westchester County (except for the extreme northeast corner) and southeast Putnam County fall into the "moderate drought" category. The extreme southwest corner of Dutchess County, all of Rockland County and Orange County and the south/southwest and middle north sections of Orange County are also experiencing moderate drought. All other areas of these Hudson Valley counties are categorized as "abnormally dry". This map is updated about every week and can be viewed at:
http://droughtmonitor.unl.edu/mapsanddata/maparchive.aspx

According to a map available on the New York City Department of Environmental Protection web site, as of July 18, 2016, the New York City water supply system seems to be operating at 89.4% of its 90.2 percent normal capacity. You can view this map at:
http://www.nyc.gov/html/dep/html/drinking_water/maplevels_wide.shtml
This is not to say that ground water levels may not be an issue in certain local communities or that we should feel free to waste water concerning our landscapes. In fact, this is a time when should probably be thinking about building some drought resilience into our landscape designs because droughts and the inevitable water restrictions that long-term droughts inevitably bring can sneak up on us and can leave our landscapes high and dry. The following CCE Westchester fact sheet may help: (link to document here)

When drought restrictions are not in place, remember to water your trees *judiciously*. Trees will remember a drought long after it has passed and "reward" you and your customers with its cumulative effects. Especially along with other environmental stresses, droughts can tip the scales and send the tree on a journey toward decline. When not delivered by recent rains, apply one inch of water in an area around the tree that's twice the tree's height, wherever there is open ground for roots to grow. The amount is easy to measure by placing straight-sided containers in the sprinkler pattern (tuna cans or similar straight sided containers work well) to measure how much you have delivered.

For tree suggestions selected for stress tolerance and other resources, visit:
http://www.hort.cornell.edu/uhi/

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

Report from Putnam: Pollinators, Lawns, and Landscapes

Sometimes we throw the baby out with the bathwater when it comes to pesticides. A lot has been written about neonicotinoids and their lethal and sub-lethal effects on pollinators foraging in the landscape. But once a single culprit is accused, popular opinion searches no further. Luckily, scientists are on the job! Several studies have taken a look at other pesticides, like fungicides and herbicides, not just insecticides. While this might seem counterintuitive, the search has proven very useful.

For example, a common fungicide (chlorothalonil) has been found to be toxic to bees in lab tests (in vitro). This active ingredient is widely used in orchard, lawn, and garden applications. But what happens out in the field (in vivo) when bees are foraging from several nectar sources? Pesticides can be diluted, creating sub-lethal effects or little detectable effect at all. That makes it hard to

define a best management practice. Once again, we don't want to throw the baby out with the bathwater until we figure out all of the possible interactions, and they are many. In one study, combining pesticides made for a lower toxicity and in another, a higher toxicity: additives and adjuvants, surfactants and active ingredients all interact. (For a discussion of what we know about fungicides and pollinators, please see this review: http://pollinator.cals.cornell.edu/threats-wild-and-managed-bees/pesticides/fungicides)

Studies have shown that the more diverse the habitat, and the more diverse the nectar sources, the lower the impacts of pesticides on foraging bees. This includes many of our native bees, which are excellent and important pollinator of food crops.

So that gets me to where you fit in as a professional. You have the balancing act. You need to meet customer expectations, many of which are defined by what they see their neighbors doing. Customers may expect fungicide and insecticide applications because they see their neighbor getting them, and whether they need it or not. You also probably got into this business because you like plants and the living things that surround them. So making the bridge between a good looking landscape that meets customer expectations and one that provides habitat for pollinators and other wildlife can take some time, and may require you to change the customers sense of aesthetics.

Great spangled fritillary enjoying some clover on a local sports field. Photo Jen Stengle

For example: mowing higher is not only better for the lawn, but also allows some broadleaf weeds like dandelions, clover, and even escaped Ajuga to flower, providing a favored nectar source for bees. But wait! Customers don't like broad-leafed weeds in their lawn, you say? We are back to cultural expectation: the neighbors don't have broad leafed weeds. WE want our lawns to look like putting greens.

Here's a fact sheet that may be helpful for communicate these ideas to customers. Smart Lawns for Pollinators from Michigan U. Extension, breaks down most of the major concerns about pollinators foraging on lawns.

Written by Jen Stengle, Resource Educator, Cornell Cooperative Extension of Putnam County

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 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/. Advanced Technical Consultants (ATC): Kevin Hurley, 845-687-6483, or visit www.pested.com (on line courses). For a more detailed list of current 30 hour certification courses, search the Bureau of Pest Management - Information Portal at http://www.dec.ny.gov/nyspad.
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.

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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/
Subscribe to Turf Short Cutt, RSS Feed, Blog: http://www.hort.cornell.edu/turf/pdfs/shortcuttorder.pdf

Branching Out: http://branchingout.cornell.edu/
Newsletter Subscription: http://branchingout.cornell.edu/Subscriptions.html

Eastern New York Commercial Horticulture Program (Fruits, vegetables, greenhouse):
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/

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