

FARM & GARDEN



Cornell University
Cooperative Extension
Chemung & Tioga Counties

NEWS AND NOTES FOR FARMERS & GARDENERS IN CHEMUNG AND TIOGA COUNTIES

January 2018

News From CCE

By Barb Neal, CCE Tioga

2018 has certainly started with eye-popping, finger-freezing low temperatures! As I write this, the wind is howling at my office window and wind chills are well below zero. What better time to print out the Farm and Garden, settle into a comfortable chair, and sip hot chocolate?

The winter is a time for sharpening our saws—learning more about what we are interested in, or learning new skills you can put to use when the weather warms. This year, there are a large number of classes that your educators in Chemung and Tioga are putting on. The central theme of these workshops is building self-sufficiency by growing your own fruit, vegetables, raising livestock, and preserving the bounty. Check out classes that range from raising meat chickens, to pressure canning, to raising waterfowl to maple syrup production. Classes are listed throughout this newsletter.

One of the goals I have is to create an informal network of homesteaders. Toward that end, after our homesteading classes, we will venture out to a local Owego restaurant where we will share conversation, connections, and probably not a few “war” stories. Lunch is on you, but join us at a table for lots of fun discussions and sharing tips.

Finally, there are lots of workshops and trainings being held throughout the area—be sure to check out the News and Notes section to learn about what other classes are being held in neighboring counties.

Here is a wish for a bountiful new year!



Inside this issue:

- Chemical Ecology
- Managing voles in the orchard
- Beneficials in commercial production
- Interesting workshops
- And more!

Are you a livestock or dairy farmer?

Here is a great way to start your year—subscribe to the Beef Cattle Management blog. It has up-to-the-minute information you need to make good livestock decisions, and make you more money!

Subscribe by visiting this website:
<https://blogs.cornell.edu/beefcattle/>

The website also is a one-stop shop for beef cattle management.

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Back by Popular Demand: The CCE Tioga Homesteading Series!

CCE Tioga will be hosting a homesteading series this January and February and March. Our goal is to help you become more self sufficient this year by growing and preserving more of your own fruits, vegetables and meats.

The classes will be held Saturday mornings, with many of the Saturdays hosting two classes, run back to back.

Would you like to meet other homesteaders? Join us after the second class ends (around 11:30) as we gather in a local Owego lunch spot for some food, conversation and connection. You pay for your lunch, then we sit together and get to know each other and share tips and stories.

See Page Three for a list of Classes! Check out some homesteading classes on raising waterfowl and maple syrup production in Chemung, too! All of our classes are open to everyone.



Internal Parasites in Sheep & Goats and FAMACHA Certification Workshop

Internal parasites are one of the biggest health problems affecting sheep and goats in the Northeast. As a result, producers need to know how to best combat it. In this workshop producers will be taught the basics of parasite control as well as how to develop integrated parasite management programs for their farms. As part of this workshop we will also have a hands-on training on how to use the FAMACHA Anemia Guide (good only for the barber pole worm) health exams to determine the need for deworming, and fecal egg counts. You are encouraged to bring a refrigerated fecal sample of 8 to 10 fecal pellets in a baggie from one sheep or goat at your farm to the workshop.

Date and Time: January 27th 2018, 9 am - 2:30 pm

Location: Chemung County Fairgrounds (171 Fairview Rd, Horseheads, NY 14845)

Trainer: Dr. Tatiana Stanton, Cornell Sheep and Goat Programs

Tentative Schedule:

9 am - Registration

9:15 am - Introductions (farms/families and current parasite programs)

9:30 am - Current situation of parasites in the Northeast and knowing your enemy

10:30 am - Know your weapons (best management practices and selective deworming)

11:15 am - Lunch

11:45 am - What's new in parasite management?

12:30 pm - Hands on FAMACHA scoring, health exams, and fecal egg counts

2 pm - Discussion of your future parasite programs and questions

2:30 pm - Adjourn

Cost: Option 1: \$25 per farm or family (includes 1 FAMACHA guide, workshop, and lunch)

Option 2: \$12 per farm or family (workshop and lunch only)

Additional FAMACHA guides will also be available for purchase at the event.

Contact: Shona Ort, CCE Chemung at 607-734-4453 ext. 227 or sbo6@cornell.edu.

Please pre-register with Shona by 1/24/17 so we can ensure enough food and handouts.

Also, in the interest of biosecurity please wear clean clothes and shoes to the workshop and plan to change them prior to doing your own farm chores.

For more specific information about the Chemung County Master Gardener program, please contact Jingjing Yin at 607-734-4453 or jy578@cornell.edu.

For more information about the Tioga County Master Gardener program, please contact Barb Neal at 607-687-4020 or ban1@cornell.edu.



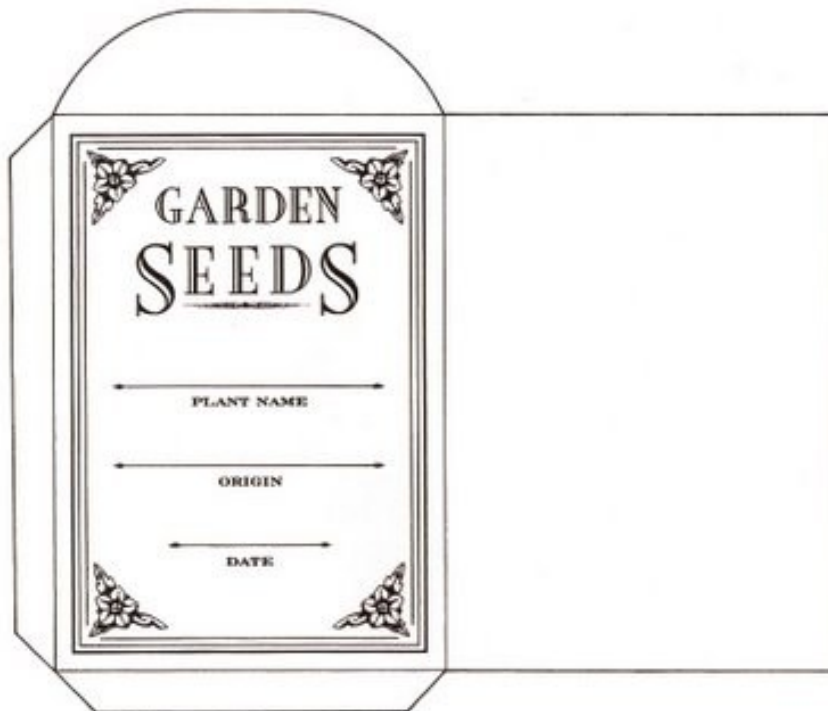
Seed Swap

These frigid temperatures have me clinging to the Johnny's and Fedco's Seed catalogue like my life depended on it. I need to know that someday very soon, the earth will be warm and rich, and seedlings will be sprouting from the ground.

If you, like me, find solace in the winter by thinking about seeds and sprouts, come join us on Saturday, February 24th from 9 am to 10:30 am for our second annual Seed Swap. Bring a few packages or bring a drawerful! Trade, talk plants, and enjoy some coffee and donuts with fellow gardeners. If you have some written or visual info on the seeds you bring, that would be great to bring and share.

No seeds to share? No problem! We have plenty of seeds to share with you.

Here is a clipart of a seed packet you could print out and use to share your seeds. See you there!



Date: February 24th

Time: 9 am to 10:30 am

Place: 56 Main Street, Owego—downstairs in our CCE Conference Room

Fee: No fee! Just come! Open to everyone!

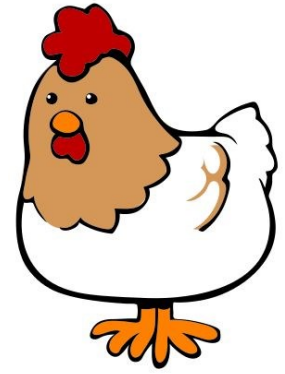


Looking for compost to buy from a local producer? Check out this map from the Cornell Waste Management Institute. In addition to compost facilities, this map includes compost education and demonstration sites as well as transfer stations and places that are diverting organics to centralized facilities. Any effort to divert organics from the landfill is a positive effort. Please use the link above to get your diversion efforts on the map.

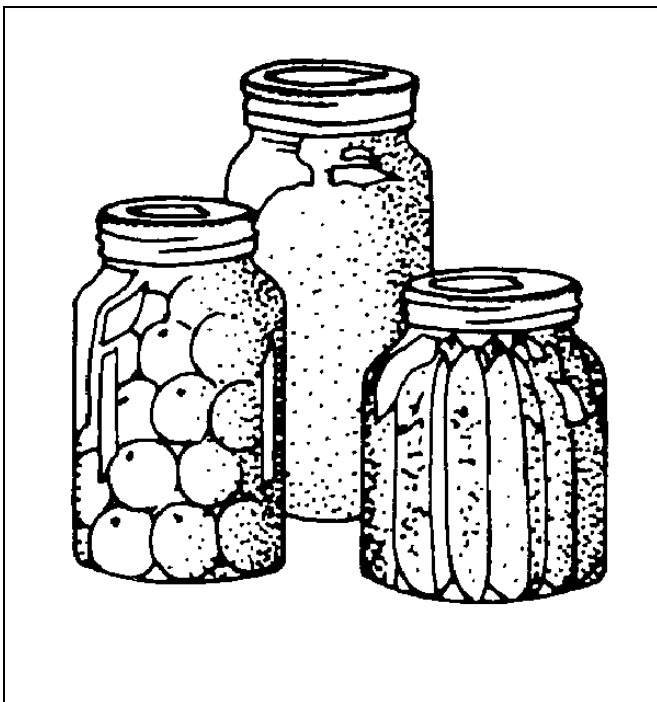
Click here to see the map: <http://compost.css.cornell.edu/maps.html>

Homesteading Series in Tioga County

Join us to learn how to be more self-sufficient this year! Learn how to grow your own fruits and berries, enjoy farm fresh eggs and meat, and even process your own produce!



Date	Time	Class
Saturday, January 20th	9 am to 10 am	Raising Laying Chickens for Eggs
Saturday, January 20th	10:30 to 11:30 am	Raising Meat Chickens
Saturday, January 27th	9 am to 11 am	Introduction to Canning (Boiling Water Bath)
Saturday, February 3rd	9 am to 10 am	Growing Small Fruits (Strawberries, Blueberries, Raspberries, etc.)
Saturday, February 3rd	10:30 to 11:30 am	Growing Unusual Fruit
Saturday, February 10th	9 am to 10:15 am	Pressure Canning (you should have familiarity with boiling water canning to attend this class.)
Saturday, February 10th	10:30 to 11:30 am	Composting using Worms (Vermicomposting)
Saturday, February 24th	9 am to 10:30 am	Seed Swap —bring your own seeds and share with other gardeners. No seeds, no problem—we have plenty to share!
Saturday, March 10th	9 am to 11 am	Starting Your Home Apple Orchard
Saturday, March 17th	9 am to 11 am	Pruning Young Apple Trees (a hands-on, outdoor work shop)



All classes will be held at the CCE Tioga Offices (56 Main Street in Owego).

There is a fee of \$5 per class., except for the seed swap, which is free. Bring your kids—the can attend for free.

If you wish, join us at a local Owego restaurant for lunch after the classes wrap up for the day. Buy your lunch, then join us around a table for conversation, sharing and connection. Meet with other homesteaders in the county! Share stories and tips.

Register for the classes at: 607-687-4020

For more information and to see the latest list of classes, visit: <http://tioga.cce.cornell.edu/>

Raising Waterfowl

March 28, 2018

6 - 8 pm

4-H Building

Chemung County Fairgrounds



If you would like to learn more about raising waterfowl please join us on March 28, 2018 from 6-8 pm at the Chemung County Fairground in the 4-H Building. We will be going over the basics of raising waterfowl. Topics to be covered in this workshop include purpose, regulations, breeds, brooding, housing, nutrition, health, predator control, breeding, egg production, meat production, marketing, and more.

Cost to attend is \$5 per person. Pre-registration is suggested in order to ensure enough handouts and refreshments. For more information and to register, please contact Shona Ort at 607-734-4453 ext. 227 or sbo6@cornell.edu.



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Building Strong and Vibrant New York Communities

Orchard Wildlife Management: Preventing Vole Damage

By Robert Crassweller, Ph.D. and Tara Baugher

Updated October 25, 2017. Article reprinted from <https://extension.psu.edu/orchard-wildlife-management-preventing-vole-damage>.

Editor's note: this article has been edited to be more appropriate for NYS home gardeners.

One of the last tasks in getting orchards ready for winter is planning your strategy to control voles and prevent their damage.



We have two major types of voles:

Pine (*Microtus pinetorum*) and Meadow (*Microtus pennsylvanicus*). The pine vole is smaller, usually 4 to 6 inches long, while the meadow vole is 5.5 to 7.5 inches in length. Meadow voles tend to spend their time above ground, building surface runways in long grass, while pine voles tend to burrow down in subterranean runs. Voles are active both day and night and do not have a hibernation period.

Damage by the different types of voles is slightly different. Pine voles feed on roots below the surface while meadow voles tend to feed around the base of the tree above the surface. Do not confuse meadow vole damage with that caused by rabbits. Rabbit damage will extend up the trunk and typically there is more gnawing injury. An interesting note for orchards located in more northern areas where snow may persist for several weeks is that you may see damage up into the tree when meadow voles can run across the snow surface.

Monitoring for Vole Damage Potential

The first step in any vole control program is to monitor the orchard to determine the extent of the population present. Monitoring consists of providing some "sheltered" locations in the orchard such as arched roofing shingles, tires cut in half, "PVC T-tubes," used aluminum soda cans or anything that can provide temporary shelter for the voles. Monitoring stations are best concentrated close to where orchard blocks adjoin

woods or open fields but should also be scattered throughout large blocks.

The apple index method is the most common method of monitoring. First place the "shelters" in the orchard, preferably where you may see or suspect vole runs. Make a grid map of the locations of the stations. Leave them in place for 3 to 5 days before baiting them. To bait them cut 0.5 inch square chunks of apples and place them under the shelter. Be sure to map the orchard as to the locations of the bait stations. Wait 24 hours and return to the bait stations and examine the apples for evidence of chewing on the apple or its absence. Marking the grid map you created with a + or - will give you a visual representation of the vole activity. Wherever there is a concentration of the vole population will be the area that you need to concentrate control measures.

Another method of determining the population is to set traps and monitor them. (Note: trapping is not an efficient control method in large orchards). For meadow voles, place the traps in runways, flush with the ground and perpendicular to the runway. Place the trigger end in the runway. For pine voles, locate a tunnel and place the trap within the tunnel and perpendicular to it. Put a cover such as a bent roofing shingle or box over the traps. This helps protect most nontarget animals and makes the voles more likely to enter the site.

Cultural Management

Cultural controls can be utilized to reduce populations and potential damage. The first line of defense is to mow the orchard row middles closely to reduce potential cover for the voles. A closely mown sod will expose voles to attacks by predatory birds such as hawks and owls. Providing good nesting places for predatory birds can also help control the population. However, if you go this route you probably should not be using poison baiting techniques.

Tree guards are another effective means to prevent damage to the trees. Wire mesh, perforated wire guards and plastic wraps placed around the base of the tree can be effective deterrents to meadow vole damage. However, for the tree guards to be effective for pine voles they need to be buried several inches below the surface.

Habitat modification should also be a primary mechanism to control potential damage. Voles can live in dense populations in ditch banks, rights-of-way and water ways. Closely mowing adjacent fields and burning down weeds will help prevent voles from commuting between those areas and the orchard.

Repellents on a small scale may serve to reduce damage. Materials that contain capsaicin can be applied directly to the trunks of trees. Protection is relatively

short term.

Indirect Chemical Management

As mentioned in the cultural management section, voles dislike being exposed to predators and will tend to stay in tall vegetation. A vegetation-free herbicide strip underneath the trees can help to reduce damage by meadow voles. This species will tend to shy away from feeding on trees where they are exposed to view and attack by predators. Fall application of herbicides will not only help in your weed management program for next spring but also help reduce vole damage.

Chemical Management

The application of toxic baits is probably the quickest and most effective method of reducing troublesome populations. These baits are applied in the fall after harvest, preferably before the ground freezes and may need a re-application in the spring if monitoring shows a resurgence of the populations.

Used in conjunction with habitat modification and cultural controls, rodenticides are an important part of vole management. Two types of rodenticides are often used: one to provide a quick reduction in numbers (high toxicity and fast acting, a single-dose toxicant) and the other to provide protection throughout the winter (one of the anticoagulant baits).

Timing influences the success of control programs. Wet weather reduces the effectiveness of rodenticides, so apply baits when weather is likely to be fair and dry for at least 3 days. Baits are most effective when naturally occurring foods, such as green vegetation and fruit drops, are limited. Late fall is an important time to bait voles because it serves to reduce populations before the onset of winter, when vole damage is most severe and snow cover precludes rodenticide use. When winter survival is high, baits should be applied in the spring before the breeding season and before renewed growth of ground cover diminishes bait acceptance.

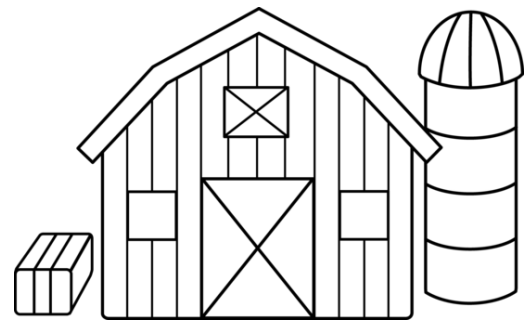
Editor's note: Talk with your CCE educator to learn which rodenticide is appropriate for you to use. Many of the most effective products are restricted use pesticides and have specific use limitations. Your best bet is to employ cultural methods of vole deterrence.

Are you a Fiber Farm? Consider registering in this NYS Fiber Resources Database

I came across this database in the Farmer 2 Farmer Facebook feed, and thought it might be of value to some of our counties' farmers. Helen Trejo is building a Google based database of fiber farms and processing plants in New York state.

Here is the link to her website, and you can follow it to complete a survey and be on the database.

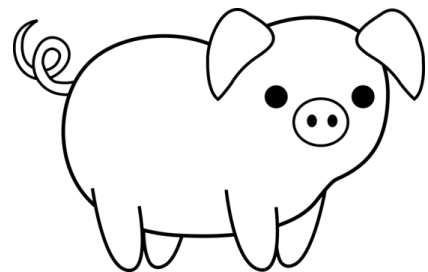
<https://helenxtrejo.com/2017/12/27/building-a-new-york-fiber-farm-map-database/>



Building a Tioga County Farm Database

Are you a farmer in Tioga County? Would you like up-to-date information on insects, diseases, grant opportunities, and more? Then please contact Barb Neal at 607-687-4020. I am building a database of farmers in the county and would love to include you on the mailing list. I am planning to send out monthly "Farm Minute" emails that contain bullet-pointed, timely information on farming issues. My goal is about one per month, and the email can be read in one minute or less, because I know you are busy.

Even if you do not sell your product commercially, please consider joining the list. Knowing what animal diseases are cropping up, the latest on late blight, and the like can help you grow the best produce and livestock you can.



Manipulate Habitats to Increase Beneficial Organisms

Reprinted with permission from NYSIPM Insights newsletter

Growers often use the IPM technique of increasing the complexity and diversity of vegetation to fight bad bugs (plant damaging insects). While this technique has been around for a long time, scientists continue to test new ways to implement it.

For example, flowering conservation strips and beetle banks, made up of specific types of plants, provide food resources such as pollen and nectar or alternate prey, shelter, and overwintering sites for good bugs. Using native plant species could serve a dual function of fighting the bad bugs by enhancing the beneficial ones, while also promoting other valuable ecosystem services.

Attractive Research

For example, Steven Frank, Paula Shrewsbury, and Oke-meri Esiokpe evaluated ten native plant species for their attractiveness to good bugs at the University of Maryland. Plants that showed the most promise were *Monarda punctata* or spotted horsemint (Lamiaceae), *Pycnanthemum tenuifolium* or mountain mint (Lamiaceae), and *Eupatorium hyssopifolium* or hyssopleaf thoroughwort (Asteraceae), all of which generally harbored the greatest number of predators and parasitoids dwelling and foraging among the plant foliage.

This IPM technique is considered by scientists to be a branch of conservation biological control—using nature's tactics to fight pests. Specifically, scientists are studying ways to manipulate habitats—changing the composition of plants and other organisms—to fight attackers. There is evidence going back over twenty years that increasing plant species diversity and vegetation complexity of habitats and therefore the abundance of food resources can increase the longevity and fecundity of natural enemies.

In Europe, beetle banks, composed of bunch grass or *Dactylis glomerata*, provide shelter for ground foraging predators such as carabid beetles, staphylinid beetles, and spiders. Studies in Maryland found similar results.



Life stages of the brown marmorated stink bug. Source: W. Hershberger

"Providing overwintering habitat allows good bugs to remain in fields or landscape beds rather than retreating to edges and may lead to more robust populations of natural enemies over time," said Shrewsbury. "We go so far as to say that increasing vegetative complexity in general could benefit ground-dwelling predators."

Common flower species, those that have been proven attracters through research, and that are recommended in habitat manipulation programs, are sweet alyssum, *Lobularia maritima* L. (Brassicaceae), buckwheat, *Fagopyrum esculentum* Moench (Polygonaceae), phacelia, *Phacelia tanacetifolia* Benth (Hydrophyllaceae), and umbelliferous herbs such as coriander, *Coriandrum sativa* L. (Apiaceae), fennel, *Foeniculum vulgare* Miller (Apiaceae), and dill, *Anethum graveolens* L. (Apiaceae).

One strong performer is mountain mint, *Pycnanthemum tenuifolium* Schrader (Lamiaceae). Another two are the above-mentioned *Monarda punctata* and *Eupatorium hyssopifolium*. Spiders and parasitoids thrived around these species of plants.



Pycnanthemum tenuifolium, or mountain mint, provides habitat for predators and parasitoids—the good bugs that keep pests in check. Source: Chris Evans, University of Illinois, Bugwood.org

Bring It On

Heteropteran predators such as bigeyed bugs, *Geocoris* spp. (Lygaeidae), minute pirate bugs, *Orius* spp. (Anthocoridae) and predatory stink bugs (Pentatomidae)



made up a small population, but were important predators of aphids, eggs and larvae of lepidopteran pests, and other small plant feeding arthropods. Coccinellid lady beetles have been shown to reduce aphids and other pests.

Home Defender

The IPM strategy of habitat manipulation could shape up to be a big game-changer for homeowners and gardeners in the match against the brown marmorated stink bug (BMSB), an invasive plant-feeding insect and home invader in the fall and winter months.

In 2015, researchers found that in production nurseries the availability of fruit on trees affected the abundance of that pest. It turned out that although BMSB is a generalist herbivore, the availability of ripe fruit serves as a key resource and attractant for the insect. Removal of fruits from trees suppressed stink bug populations. During their study, *H. Halys* successfully moved about, tracking ripe fruit as it became available throughout the season. The researchers suggest that for homeowners, gardeners, or ornamental tree growers, removal of fruits from trees could be an effective stink bug population control tactic. Since this tactic is impractical in most cases, another strategy might be to plant non-fruiting varieties of trees as ornamentals, to reduce stink bugs in landscapes, reduce risks to crops, and limit home invasions by the bug. Clearly, fruit growers will have to use other IPM tactics.

No Use for Stink Bugs

In the first outbreak of BMSB in North America in 2010,



growers faced multimillion dollar losses in apples and peaches; vegetables such as sweet corn, peppers, and tomatoes; row crops including field corn and soybeans; vineyards; small fruit; and ornamental plants. In the 2011 growing season farmers applied repeated pesticide applications to suppress damage by BMSB while researchers searched for alternative management strategies. BMSB also invaded homes and structures by the thousands in the fall. Pest control companies responded to demand by spraying eaves, windows, and doorways of buildings where BMSB aggregate and enter.

In North Carolina and Virginia natural woodland edges, the greatest numbers of BMSB were found on tree of heaven (*Ailanthus altissima*), catalpa (*Catalpa spp.*), yellowwood (*Cladrastis kentukea*), paulownia (*Paulownia tomentosa*), wild cherry (*Prunus spp.*), walnut (*Juglans spp.*), and redbud (*Cercis spp.*).

In a study published in 2016, Erik Bergmann and coauthors identified 88 commercially available host plants used by BMSB and 43 plants that did not support BMSB at any life stage.[1] The authors suggest that planting non-hosts, especially gymnosperms—including conifers, cycads, and ginkgo—may help to reduce the intensity of the pest's presence in landscapes providing a further example of habitat manipulation.

IPM to the rescue, again: By avoiding plants that favor BMSB and incorporating non-hosts into landscapes, homeowners could perhaps reduce the need for treating structures and plants with insecticides, and reduce the likelihood of home invasions.

Frank S, Shrewsbury P, and Esiekpe O (2008) Spatial and Temporal Variation in Natural Enemy Assemblages on

Maryland Native Plant Species. *Environ. Entomol.* 37(2): 478-486

Martinson H, Venugopal P, Bergmann E, Shrewsbury P, Raupp M (2015) Fruit Availability Influences the Seasonal Abundance of Invasive Stink Bugs in Ornamental Tree Nurseries. *J Pest Sci* 88:-461-468. DOI 10.1007/s10340-015-0677-8

Monarda punctata, spotted horsemint, attracts beneficial bugs. Source: Karan A. Rawlins, University of Georgia, Bugwood.org



A solitary bee nest. Source: Jennifer Thaler, Cornell University

Chemical Ecology Could Address Pests, Help Pollinators

In a commercial orchard, in a tree, you may have seen a special trap—a sticky card—that uses insect pheromones to trap pests. But have you spent much time thinking about how *plants* use defensive chemicals as well?

Plants use a variety of natural defense mechanisms to counter attacks by pests. Some plants emit chemical “help” signals that call natural enemies—such as beneficial insects—to their aid. Farmers can manage crops to maximize plant defenses.

In nature, insects not only send chemical signals to each other, but also to other plants. Meanwhile, plants send chemical messages to insects, to other plants, and within parts of a single plant. Nature abounds with chemical signals. Scientists hope to better understand these signals to control pests as well as support bees and other beneficial insects.

The Northeastern IPM Center is part of a five-year, multi-state research and extension project that began in 2015 to harness chemical ecology to address pest and pollinator priorities. These efforts aim to reduce the impacts of insect pests, protect valuable pollinators, support organic agriculture, and develop holistic, ecology-based systems.

The total value of principal crops in the Northeast is greater than \$5.3 billion. Northeast vegetable growers harvest crops with a value of over \$300 million. Meanwhile, demand for organic fruit and vegetables continues to grow, and producers are demanding holistic, ecology-based systems.

On one level, researchers are studying the chemical structures of the substances that mediate communication between pests, crops, and beneficial organisms. Scientists are also interested in understanding the effects of pesticides on

non-target organisms such as pollinators and natural enemies of pests. Another area of interest is the effects of domestication on plant and animal chemical ecology. Do these chemical communication channels become weaker after years of domestication? Are there ways humans can maintain their strength for optimal crops?

This project represents a departure from many typical studies that focus on a particular crop or pest. It essentially is a holistic and interdisciplinary project.

Practical outcomes of the project could be a method to suppress agricultural pests, develop crops that resist or do not attract pests, or finding out how to create chemical volatiles that could repel pests from crops.

This multi-state effort allows for a comprehensive approach to studying chemical ecology in pests and pollinators, as well as share resources such as expensive analytical instruments.

In one area of study, for example, scientists are trying to determine which plant volatile chemicals lure natural enemies to the plant and defend it. Researchers have found evidence that plants attract natural enemies when attacked. However, it’s not a simple relationship, as there may be unwanted side effects, such as the attraction of predators and parasites that attack natural enemies as well. Researchers are hoping to understand these relationships better.

Researchers are also trying to understand the effects of pesticides and secondary metabolites in pollen and plant nectar, and how these may influence pollinator infection dynamics. They also want to be able to understand better if pollinators self-medicate, or create their own medicine, when exposed to secondary compounds in flowers.

With this knowledge, farmers could better manage crops, maximize plant defenses, control pests, protect pollinators, support organic agriculture, by using holistic, ecology-based systems.

For further details, see <http://neipmc.org/go/AWWp>

Two students get their hands dirty in the field, working on a chemical ecology project. Source: Jennifer Thaler, Cornell University



Introduction to Maple Syrup Production and Sugarhouse Tour

February 10, 2018 - 9am to 12pm



Have you ever wanted to learn more about producing your own maples syrup or just what is all involved in the process? If so, we would like to invite you to join us for this workshop. Jeff Benjamin and Denise Hardisky of Hill Top Maple Farm will be going over the basics of maple syrup production followed afterwards by a tour of their woodlot and sugarhouse.

Part 1: Introduction to Maple Syrup Production

Time: 9 - 10:30am

Location: 4-H Building Chemung Co. Fairgrounds (171 Fairview Rd, Horseheads, NY 14845)

Topics: Tree Identification, when to tap, and what causes sap flow, equipment needed for tapping, processing sap, when syrup is finished, filtering/bottling, and questions.

Note: Light refreshments will be provided.

Part 2: Woodlot and Sugarhouse Tour

Time: 11am - 12pm

Location: Hill Top Maple Farm (433 Parrott Rd, Cayuta, NY 14824)

Topics: Trees and system to collection tank, how incoming sap is processed, review of reverse osmosis machine, evaporator operation and considerations, finishing syrup/filtering options, bottling of final product, and possibly value added products.

Note: **Please dress appropriately for tour! Thermal layers, jackets, hats, gloves, and boots are recommended.**

Cost to attend this workshop is \$5 per person. Pre-registration is suggested in order to ensure enough handouts and refreshments. For more information and to register, please contact Shona Ort at 607-734-4453 ext. 227 or sbo6@cornell.edu.



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Building Strong and Vibrant New York Communities
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equal program and employment opportunities.

News, Notes and Workshops for Tioga and Chemung County Farmers and Gardeners

Learn how to transition from direct marketing to wholesale marketing

The 'Baskets to Pallets' course is designed for farmers of all enterprises and will cover building relationships with buyers, customer management and record keeping, pricing, grading and packaging, uniformity and consistency, and food safety, among many other topics! This fun course includes plenty of hands-on activities and opportunities for peer learning and small group discussion. The course includes one break-out session for livestock and produce farmers. Space is limited to 40 participants and early registration is encouraged. Visit <http://smallfarms.cornell.edu/projects/wholesale> for a detailed description of course topics and instructors.

The **Cornell Small Farms Program** offers over twenty courses to help farmers improve their technical and business skills. Students connect with other farmers, work on farm plans, and gain practical tips without leaving their home. Course content can be accessed anywhere with a high-speed internet connection. Most courses are six weeks long. Each week features an evening webinar and follow-up readings, videos, and activities. Students and their instructors connect through online forums and live chat. If you aren't able to attend the webinars in real-time, they are always recorded for later viewing.

Groundswell Center Farm Business Planning Course

Jan 9 – March 6, 2018. Tuesdays 6:00-9:00pm (9 week course) Just Be Cause Center, Ithaca, NY 14850 Fee: \$90 – \$350 Sliding Scale. <http://groundswellcenter.org/farmertraining/businessplanning/>

Groundswell Center for Local Food and Farming will once again be conducting a Farm Business Planning Course beginning in January 2018. This 9-session course is specifically for people in the early stages of developing an agricultural business. Whether you are just launching your business or have been operating a few years and want to become more strategic in how you move forward, this course will help you expand and increase viability and social impacts. The course is taught by a team of farmer educators, social justice activists, and farm business instructors. Students consistently report that the greatest part of the course is the opportunity to work with farmers and course instructors to outline goals, develop strategies for achieving these goals and get feedback on business plans.

This course covers:

The local farm and food sector including unmet needs, opportunities and niche markets

Equity issues and justice in the food system including examples of realistic ways to approach these within the scope of your business model

Experience from farm and food entrepreneurs about business startup and lessons learned

Tools for business assessment, strategic planning, understanding liabilities and legalities

Setting business goals and taking stock of resources and progress to date

Accounting and financial planning concepts and tools

Develop a marketing plan and marketing channels

Agriculture: Enroll in the Residential Ag. Electric Bill Discount (by Mary Wrege)

It is time to enroll or re-enroll in the Residential Agricultural Discount program offered through National Grid, NYSEG and RG&E. This monthly discount on the electric bill is possible thanks to funding from the New York Power Authority's (NYPA) ReCharge NY program. You're eligible to receive the discount if you meet the two conditions. The first is that you have an active residential electric service account with National Grid, NYSEG or RG&E billed under the following service classifications: National Grid: Rates beginning with Electric SC1 or Electric SC1C; refer to page 2 of your bill. NYSEG: 12001, 12008, or 12012 noted after Electricity Rate on page 3 of your bill. RG&E: PSC 19 SC1 or SC 4 noted after Electricity Service on page 3 of your bill.

The second condition is if you have submitted one of the following forms (supporting documentation) with your most recent federal tax return: IRS Schedule F (associated with Form 1040) - Profit or Loss From Farming or IRS Form 1120, 1120S or 1065 with an eligible Business Activity code.

The discount amount will vary each month and will be based on how many people participate, the amount of electricity used by each participant and available funds from NYPA. The discount amount is multiplied by your monthly billed kilowatt-hours and your discount will appear as a credit in a separate line item, "Res agricultural discount," on your utility bill.

To apply or re-enroll, just complete a Residential Agricultural Discount application and submit it to your utility company along with your supporting documentation. For more information and the application, contact your utility company. Links are provided below:

National Grid: https://www1.nationalgridus.com/AgriculturalDiscount-NY-RES?utm_source=PSC%20article&utm_medium=PSC%20article&utm_campaign=Residential%20Agricultural%20Discount

· NYSEG: <http://www.nyseg.com/ResAgriculturalDiscount/>

· RG&E: <http://www.rge.com/ResAgriculturalDiscount/>

Mid-Atlantic Women in Agriculture Webinars- Are every Wednesday and FREE! Courses like "What You Need to Know About the Farm Safety Act", Into to Instagram. Click the link to see the full list of courses. <https://www.eventbrite.com/e/wednesday-webinars-registration-11452674257>

RAPP website – <http://www.recycleagplastics.css.cals.cornell.edu/> The Recycling Agricultural Plastics Program, funded by NYSDEC, is charged in developing sustainable means for New York State farmers to manage their used agricultural plastics by recycling, reusing, and otherwise minimizing waste from plastics in agriculture.

Growing Chinese Medicinal Herbs



Some crops take on value to buyers as a group, not singly — particularly Chinese medicinal herbs. The movement toward producing these herbs in the U.S. has slowly gained ground over the past two decades. An effective production and marketing model involves close cooperation between licensed herbal practitioners and groups of farmers. Using a blend of current concepts — cooperatives, food hubs, CSA — the model is being developed here in New York, thanks to startup funding from the New York Farm Viability Institute. Jean Giblette of High Falls Gardens will give a presentation on this emerging market for farmers and growers.

Jean will also train participants in perennial propagation techniques. This is hands-on in the sense of showing equipment (types of flats and pots used), greenhouse conditions for over-wintering pots and flats, discussion of schedules, techniques such as hot-water scarification and soaking of seeds). This will be followed by a demonstration of planting seeds, using equipment and methods we have found to be useful for perennial plants. At the end of the training each family/farm will be able to take home a flat of planted seeds. Due to this popular hands-on component, registration will be limited to 30 farms, so please register early.

Cost is \$25/individual or \$40 for a farm (which includes 2 registrants). Click [here](#) to register online.

This training gives priority to veterans and current service members and is supported by

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Cornell Cooperative Extension of Broome County
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Log-Grown Shiitake: Economics and Management for a Profitable Crop

Saturday, January 20 at the Schuyler County Extension, 323 Owego St, Montour Falls, New York 14865.

The cultivation of shiitake mushrooms offers farmers and woodlot owners a good opportunity to utilize their forested lands while turning a profit. Start up costs are low, and previous Cornell research indicates that profitability can be achieved in the second or third year of dedicated production. As with any farming venture, viability is achieved with good business planning and attention to strategies which minimize costs and optimize efficiency.

Anyone who a resident of New York State or who farms in New York and is growing commercially, starting a new enterprise, or considering commercial production is welcome to attend. The workshop content will cover aspects of production important to selling mushrooms in New York, including safety, sanitation, marketing, and regulations.

Learn more about cultivation at: <http://cornellmushrooms.org/factsheets> Those who attend one of the workshops or the online livestream are eligible to participate in an advanced training group and receive one-on-one support for the 2018 growing season.

Details of this opportunity will be provided at the workshop. Also, a LIVE WEBINAR TRAINING: Friday, March 2nd online (access anywhere with a high-speed connection) See a Map of the locations: <https://www.easymapmaker.com/map/2018LogShiitakeWorkshops>

Workshops run from 9am to 4pm, with a catered lunch included. To Register: visit www.cornellmushrooms.org/viability Cost: \$30/person includes lunch and handouts. (online livestream 3/2 is \$20 (no person turned away for lack of funds- contact sfg53@cornell.edu for info.)

Funding for this project is provided by the USDA Specialty Crop Block Grant and administered through the New York Farm Viability Institute.

Steve Gabriel, Agroforestry Extension Specialist, Cornell Small Farms Program

sfg53@cornell.edu

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