

# FARM & GARDEN



Cornell University  
Cooperative Extension  
Chemung & Tioga Counties

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

December 2018

### News From CCE

By Barb Neal, CCE Tioga

Ahh, it is December. After an incredibly busy growing season, things tend to slow down a bit here at the CCE offices. Time to clean up the office, take stock, and make plans. We had a successful year, thanks in large part, to a dedicated group of volunteer Master Gardeners, talented farmers, our summer interns, and many service agencies that are committed to helping our counties grow and thrive.

If you have been touched by the good work we here at CCE Tioga and Chemung do, consider donating dollars so that we can continue to provide excellent and relevant programming. Our funding is consistent, but it is never enough to cover all of our good work. Help us reach even more folks in 2019.

For CCE Tioga: <http://tioga.cce.cornell.edu/community/donations>

For CCE Chemung: <http://chemung.cce.cornell.edu/donate>

And thank you!

Our best wishes for a warm and peaceful holiday season.



Make some beautiful Gourd ornaments! All supplies provided. \$15. class fee includes making 6

**Saturday, December 8th**

*10 am to noon or 1 to 3 (call soon, classes almost full!)*

**56 Main Street, Owego**

### Inside this issue:

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- And more!

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## Save the Dates!

CCE Tioga was awarded a grant to bring to our county **Old Skills, New Foods**. We will be hold hands-on workshops for middle and high school students that combine science, cooking, and gardening. Since this is a Floyd Hooker grant, there is NO fee for participating in these workshops.

These workshops are stand alone, but we welcome kids to come to every one! This is a multigenerational class, so if you are a grandparent or parent, please come, bring your kids or grandkids and have a blast while learning together and creating community around the kitchen table.

All classes will be in our kitchen space and run from 9 am to noon. Makeup class will be February 16th if inclement weather.

1. **Homemade potato-leek pizza**—we will make our own pizza dough, discuss the microbiology of bread, mill our own flour, discuss how leeks and potatoes can be grown at home, and learn basic knife skills. January 5th
2. **Yogurt, berry and granola parfaits**—we will make our own yogurt and granola, discuss how yogurt is created using live bacteria, learn how to plant and care for blueberry bushes and strawberry plants, and learn about vitamins and minerals in your diet. January 12th
3. **Caprese salad**—we will make our own mozzarella cheese, and pair it with tomatoes and basil for a yummy salad. We will also make our own balsamic and maple salad dressing, discuss how to grow tomatoes and basil, and learn how to read a nutritional label. January 19th
4. **Canning Applesauce**—We will learn the basics of safe food preservation by canning applesauce. We will learn a bit about how to grow apples, and practice peeling fruit. We will also discuss buying food in bulk and how to store it. January 26
5. **Combining plant-based proteins**—We will introduce basic nutritional science and why you need a balance of proteins, fats and carbohydrates. We will prepare a protein—rich vegetarian meal and learn place setting as we serve it. We will also discuss vegetable gardening and introduce the concept of Katie's Krops and Seed to Supper. February 2nd
6. **Learning from Indigenous Cultures**—(TBA) February 9th



For more specific information about the Chemung County Master Gardener program, please contact Jingjing Yin at 607-734-4453 or [jy578@cornell.edu](mailto: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](mailto:ban1@cornell.edu).



## Freeze-Pops: Exploding Trees and Myths

*Paul Hetzler, Cornell Cooperative Extension of St. Lawrence County*

When temperatures dip well below zero Fahrenheit, especially if they fall precipitously, things pop. Wood siding creaks. Frozen lakes and ponds emit ominous groans, snaps and booms that reverberate through the ice. If soil moisture is high and frost is deep, even the earth can shift in a harmless localized cryoseism, or “frost quake” that produces a nerve-rattling bang.

If you live in a wooded area, you’ve probably heard trees popping and cracking during a deep freeze. It’s an eerie sound on an otherwise still night. Native peoples from northern regions were very familiar with this sound, and some even named a winter month in honor of it. The Lakota call February *cannapopa wi*, “moon when trees crack from the cold.” The Arapaho consider December the tree-cracking time; for the Abenaki, it’s January.

I once found a reference in a novel to exploding trees. In the book, a lost teen boy survives a northern winter that’s so cold, trees explode into smithereens as if dynamited. I’d lived through winters with minus-40 temperatures but had neither seen nor heard of exploded trees. What did this author know that I didn’t?

After much research, I discovered that fiction is sometimes, well, fictional. As I thought, trees don’t blast themselves to bits. But since that first reference I’ve encountered the exploding-tree myth a number of times. So what does happen when trees go ‘pop’ in the night (or day)?

As we all know, when water freezes, it expands. Some “freeze pops” happen when water that collects between narrow-angle trunk unions freezes.

Luckily, sap is not pure water. It’s endowed with antifreeze in the form of sugars, and to a small extent, dissolved minerals. The more sugar (or any solute) that’s mixed with water, the lower the freezing point becomes. This is due to something known as the “Colligative Property of Solutions,”

as you no doubt recall from General Chemistry. (Actually it’s just as well to forget such trivia, which gets in the way of remembering where you put the car keys.)

There comes a point when even sugar-fortified sap will freeze and expand. This can sometimes rupture the bark of a tree, resulting in a visible crack as well as an audible one. In many cases frost cracks close with no long-term ill effects, but sometimes they become perennial. Rarely, a frost crack does send a piece of bark flying. This would tend to happen with a tree like trembling or big-tooth aspen.

Since it’s a weak point, a previous frost crack may pop open again in cold spells. Then each spring and summer the tree makes callus (“repair”) tissue in an attempt to cover the injury, resulting in a raised lip along the seam. Such trees have reduced timber value and an increased potential for decay to set in.

There’s nothing one can do for frost-cracked forest trees in terms of prevention or treatment. You can protect young landscape and fruit trees, however, with light-colored trunk wraps, or even a coat of interior-grade white latex paint, on the lower trunks. Wraps should be removed promptly in spring, and cracks or wounds should never be coated.

In truth, trees do explode occasionally—if someone has placed explosives in them. A friend of mine contracted with the US Forest Service in Oregon in the 1980s to make habitat for cavity-nesting birds. To create snags, he climbed live mature spruces and firs, drilled a hole in the trunk half-way up and inserted dynamite, which he detonated from a safe distance. I’m pretty sure he did this work when it was not below zero.



## Learn about your Ecoregion

Adapted from Habitat Network (<http://content.yardmap.org/>)

*Editor's Note: If you are interested in the intersection of landscaping and ecosystem benefits (wildlife, birds, pollinators, etc.) consider joining Habitat Network. There are great tools for mapping your property, resources to learn about how to improve our earth one yard at a time, and more. Check out the website above to start this wonderful program.*

Our ecoregion is the Laurentian Mixed Forest Province.

Ecoregions connect you to other places with similar weather, plants, and geographic conditions. These are important considerations when planning a wildlife garden or trying to understand how a place you live, work, or enjoy fits into the bigger picture.

### LAURENTIAN MIXED FOREST PROVINCE

North-central lake-swamp plains, New England lowlands, 147,300 mi<sup>2</sup>(381,500 km<sup>2</sup>)

This entire region was at one time covered in a ice sheet called the Laurentide, which is where the province name is derived. Elevations range from sea level to 2,400 ft. (730 m), with most of the areas occurring as lowlands with modest hills. Various glacial topography such as lakes, kettle ponds, drumlins, eskers, and outwash plains can be found in this province. Winters are generally long and severe, but with more than 120 days over 50°F. This region is considered transitional as it lies between boreal forest and the broadleaf deciduous forest zones.

Adapted from *Description of the Ecoregions of the United States*

#### GOOD PLANTS

Some important native plants that support biodiversity in your region include:

American mountain ash (*Sorbus americana*)

Black elderberry (*Sambucus canadensis*)

Tall beardstongue (*Penstemon digitalis*)

Looking for more plant recommendations specific to your ecoregion? Check out the [Pollinator Partnership's Ecoregion Guides](#) for a great list of plants important to pollinators.



Each ecoregion seems to have one or more exotic species that end up being invasive in the region. These plants can cause a variety of concerns from choking out waterways, to changing the character of the forest floor. One invasive of concern in this region is pictured, autumn olive (*Elaeagnus umbellata*)



One threatened animal in your region that you might benefit with your conservation actions is the rusty-patched bumble bee, (*Bombus affinis*) pictured above.

Getting to know your ecoregion can help you choose plants and understand critical issues in your region that may help you shape your landscaping choices.

## NEW REPORT FOCUSES ON THE FUTURE OF THE NY LIVESTOCK INDUSTRY



Although most livestock in New York is raised on small farms, this industry contributes \$893 million in sales to the rural New York economy. Demand far outstrips supply for NY meat and livestock, so there is room for growth, but there are a number of hurdles to livestock farmers' success.

In March 2017, the Cornell Small Farms Program and Cornell Cooperative Extension hosted one its biennial [NY Small Farm Summits](#), this time focused on the opportunities to grow the New York livestock industry.

**“The NY Small Farm Summits are an opportunity to focus on a critical issue or sector that shows promise to support greater viability of our small farms. Together, farmers, educators, and researchers consider options and prioritize actions to grow the small farm sector.” – Anu Rangarajan, Director, Cornell Small Farm Program**

The 2017 Summit brought together about 160 farmers and industry participants for a guided discussion meant to un-

cover needed research, education or infrastructure investments, debate their relative importance and then rank them as priorities for growing the NY livestock sector. To ensure that the Summit was inclusive, an additional 450 NY livestock farmers shared their priorities via an electronic survey.

More than 85% of the farmers participating in the Summit believe the New York livestock sector has potential for growth, and most farms (73%) have seen gross revenue from sales of livestock products increase over the last five years. With this optimism and growth, the farmers also noted specific research and extension investments that would address constraints to scaling up production.

Information gathered from the Summit is now available as a [full report](#), “Securing the Future of the New York State Livestock Industry,” and as an [executive summary](#).

**“Livestock production has a huge potential for growth in New York with markets available and hungry local foods consumers. Many farmers and educators have worked to turn a mound of data into this important report. Thanks to the Cornell Small Farms program for help with this undertaking!” – Nancy Glazier, Regional Small Farms Specialist, Cornell Cooperative Extension**

The “Securing the Future of the New York State Livestock Industry” report and executive summary can be viewed online or downloaded as a PDF from the Cornell Small Farms Program website: <http://smallfarms.cornell.edu/projects/summit/>

### Climate Smart Farming Fact Sheet

Click here for a copy of a four page fact sheet on Climate Smart Farming.

<http://climatesmartfarming.org/wp-content/uploads/2018/11/CSF-Fact-Sheet-Key-Strategies-FinalNov2018.pdf>

Farming is never easy, but it is going to be even more challenging as we face increased rainfall events, weather extremes, and more. Be prepared—the fact sheet will give you steps to take in planning how to be a climate-resistant farm. Good information for gardeners, too!

## What is the spotted lanternfly (SLF)?

From the DEC website

*Editor's Note: folks, the people who monitor invasive insects are really worried about this one. While beautiful, it comes in huge numbers and impacts many of our important crops like grapes, hops and fruit trees. Since we are located close to the PA border, it is likely we will have this pest sooner rather than later. If you find this pest, let us know!!*



Spotted lanternfly, Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, bugwood.org

SLF is an invasive pest from Asia that primarily feeds on tree of heaven (*Ailanthus altissima*) but can also feed on a wide variety of plants such as grapevine, hops, maple, walnut, fruit trees and others. This insect could impact New York's forests as well as the agricultural and tourism industries.

### Identification

Nymphs are black with white spots and turn red before transitioning into adults. They can be seen as early as April. Adults begin to appear in July and are approximately 1 inch long and ½ inch wide at rest, with eye-catching wings. Their forewings are grayish with black spots. The lower portions of their hindwings are red with black spots and the upper portions are dark with a white stripe. In the fall, adults lay 1-inch-long egg masses on nearly anything from tree trunks and rocks to vehicles and firewood. They are smooth and brownish-gray with a shiny, waxy coating when first laid.

### Where are they located?

SLF were first discovered in Pennsylvania in 2014 and have since been found in New Jersey, Delaware and Virginia. In New York, a dead insect was found in Delaware County in the fall of 2017. In 2018, insects were reported in Albany, Monroe, Yates and Suffolk counties. Following the reports, DEC and Department of Agriculture and Markets (DAM) staff immediately began extensive surveys throughout the area. At this time, no additional insects have been found.

## What is the risk to NYS?



SLF with closed wings, Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, bugwood.org

SLF pose a significant threat to New York's agricultural and forest health. Adults and nymphs use their sucking mouthparts to feed on the sap of more than 70 plant species. This feeding sometimes stresses plants, making them vulnerable to disease and attacks from other insects. SLF also excrete large amounts of sticky "honeydew," which attracts sooty molds that interfere with plant photosynthesis, negatively affecting the growth and fruit yield of plants. New York's annual yield of apples and grapes, with a combined value of \$3.4 million, could be impacted if SLF enters New York. The full extent of economic damage this insect could cause is unknown at this time.

Although native insects also secrete honeydew, the size of SLF and the large populations that congregate in an area result in large accumulations of it. The sticky mess and the swarms of insects it attracts can significantly hinder outdoor activities. In Pennsylvania, where SLF populations are the densest, people can't be outside without getting honeydew on their hair, clothes, and other belongings.

### How do they spread to new areas?

SLF can jump and fly short distances, they spread primarily through human activity. They often hitch rides to new areas when they lay their eggs on vehicles, firewood, outdoor furniture, stone, etc. and are inadvertently transported to new areas.

### What are the signs of an infestation?

Sap oozing or weeping from tiny open wounds on tree trunks, which appears wet and may give off fermented odors.

One-inch-long egg masses that are brownish-gray, waxy and mud-like when new. Old egg masses are brown and scaly.

Massive honeydew build-up under plants, sometimes with black sooty mold.

## What is being done?



*Oozing wounds on a tree*  
Photo: Pennsylvania Department of Agriculture, [bugwood.org](http://bugwood.org)

DEC is working with DAM and the US Department of Agriculture (USDA) to address SLF. Since it is less expensive and easier to deal with a pest before it becomes widespread, the goal is to find SLF early or prevent it from entering NY altogether.

A plan has been developed that describes how the agencies will prevent and detect SLF in New York. Extensive trapping surveys will be conducted in high-risk areas throughout the state as well as inspections of nursery stock, stone shipments, commercial transports, etc. from Pennsylvania. DEC and partner organizations encourage everyone to be on the lookout for this pest.

## Exterior Quarantine

To slow the spread of SLF, DAM issued a quarantine that restricts the movement of goods brought into New York from quarantined areas in Delaware, New Jersey, Pennsylvania and Virginia. The quarantine requires regulated articles, such as packing materials, landscaping and construction equipment, and nursery stock to have certificates of inspection issued from the impacted states. Inspections are being conducted across New York by DAM and its partners to check for SLF and compliance with the regulations. For more information and for a list of regulated articles, see please visit [DAM's website](#) (leaves DEC website).

## Protective Zones

In an effort to detect SLF early and respond in a timely manner, DEC has established a Protective Zone encompassing 20 counties located near the PA and NJ infestations. Protective Zones allow DEC and its partners to conduct activities such as surveying, monitoring, and management to find and prevent the spread of SLF. Protective Zones are established in the following counties: Bronx, Broome, Chemung, Chenango, Delaware, Dutchess, Greene, Kings, Nassau, Orange, Otsego, Putnam, Queens, Richmond, Rockland, Suffolk, Sullivan, Tioga, Ulster and Westchester.

## What can I do?

Learn how to identify SLF.

For outdoor items such as firewood, vehicles, and furniture for egg masses.

When you visit states with SLF, be sure to check all equipment and gear before leaving. Scrape off any egg masses. Visit the [Pennsylvania Department of Agriculture webpage](#) (leaves DEC website) for more information on SLF in PA.



*SLF egg masses on a tree, Photo: Kenneth R. Law, USDA APHIS PPQ, [bugwood.org](http://bugwood.org)*

## If you believe you've found spotted lanternfly in New York...

Take pictures of the insect, egg masses and/or infestation signs as described above (include something for scale such as a coin or ruler) and email to [spottedlanternfly@dec.ny.gov](mailto:spottedlanternfly@dec.ny.gov) OR fill out a [reporting form](#) (leaves DEC website).

Note the location (address, intersecting roads, landmarks or GPS coordinates.)

Report the infestation to [iMapInvasives](#) (leaves DEC website.)

## Resources:

[SLF fact sheet \(PDF, 450 KB\)](#)

[USDA APHIS](#) (leaves DEC website)

[Pennsylvania Department of Agriculture](#) (leaves DEC website)

## Raising Fowl in Urban Areas

By Phillip J. Clauer, Poultry Extension Specialist with Penn State University. Reprinted from <https://extension.psu.edu/raising-fowl-in-urban-areas> on 11/26/18.

Raising domestic poultry such as pigeons, ornamental poultry, and small meat and egg flocks has become an increasingly popular pastime for urban residents.



Most of us can appreciate the pleasures and benefits of raising birds. It is a relaxing activity that offers an insight into other forms of life and basic life processes. People enjoy the companionship of their birds and the social interaction that comes from club activities and competitions.

However, before you purchase any birds, you must check with your local government and property associations to make sure you can raise poultry in your area. Many localities restrict the raising of poultry. Recently, however, many cities, towns, and subdivisions throughout the nation have reexamined local laws, ordinances, and property owners' guidelines to allow residences to raise small numbers of poultry in urban areas.

The urban animal hobbyist must try not to infringe on the neighbor who may be sensitive to noise, odor, flies, rodents, and unsightliness due to inadequately designed and maintained facilities. People differ in their tolerance to the same conditions. Just because you let your chickens run free for a year doesn't mean the new neighbor will enjoy them in their yard or garden.

The following are some guidelines for owners of poultry in urban areas. Remember to follow all local laws and ordinances. By following the guidelines, you can avoid a good deal of conflict with others in your community and the development of ordinances banning the raising of certain animals in your community.

### Health and Safety

The important factors to consider are the location of animal enclosures in relation to residences, storage of feed to avoid rodent problems, fly control, sanitation, and disposal of animal waste in a safe manner. The health and well-being of the animals should also be taken into account. The animals must be given adequate space, proper nutrition,

sufficient attention, and a place to seclude themselves. The enclosure should also provide protection from the environment and predators.

### **Confinement**

Never allow animals or birds to roam free. Provide the following amount of space of confinement for your birds (fenced outdoor access is optional):

- Provide a minimum of 1 square foot per pound of body weight for permanent indoor confinement areas.
- Provide 3 cubic feet of air (total enclosed space) per pound of body weight for permanent indoor confinement quarters.
- Provide a minimum of 2 square feet per pound of body weight for permanent outdoor fenced areas.

### **Setbacks for Housing**

- Do not place outdoor enclosures within 25-50 feet of a residence or dwelling or place any permanent detached structures too close to the residence of another property owner.
- For urban settings, keep structures 25 feet from property lines.
- For rural settings, keep structures 100 feet from property lines.

### **Waste**

Clean litter and animal waste on a regular basis and dispose of it promptly and properly. Pens with a 3-inch-deep bed of pine shavings should be cleaned at least once every 6 weeks or when the litter gets wet or starts to develop an odor. Poultry waste with pine shaving bedding makes a great amendment for composting. Some localities require that waste be double bagged and disposed of with household waste. Poultry waste must be composted before adding to soil. Waste from home slaughter of poultry for meat consumption is not allowed in most localities. If it is allowed, follow local and state laws as to the proper disposal of waste (feathers, internal organs, and other parts you do not wish to consume) produced from slaughter.

### **Predators and Rodents in the Neighborhood**

To avoid attracting rodents and other predators to the neighborhood, store feed in rodent-proof containers. When building or preparing the coop and outdoor pens to raise poultry, do the following:

- Cover outdoor pens.
- Make sure you have a way to lock the birds inside safely at night.
- Bury the sides of outdoor pens so animals cannot dig under and get to your birds.
- Prevent animals from digging under any permanent structures.
- Use small mesh wire to keep wild birds and rodents from accessing your pens.



## Appearance and Property Values

The appearance of all types of equipment and housing, particularly external runs that are visible to neighbors, should not detract from the overall appearance of the surroundings. Exteriors of sheds and other structures should be kept painted and well maintained. Most localities require that structures be built to conform to local architecture or building materials being used in the community. Weeds and trash should be removed from around the facilities. Provide a sight fence or shrub screening to a minimum height of 4 feet around any outdoor enclosure.

Keep all structures or fences well maintained. Old, poorly maintained structures surrounded by weeds and piles of trash are not acceptable and detract from the appearance of the neighborhood. If your activity is seen as an eyesore, neighbors will quickly find other aspects of your poultry flock a nuisance as well.

## Noise and Odors

All animals and birds have characteristic noises and odors. Owners are obliged to house animals so the odors are not offensive and noises are no louder than the normal speaking voice of an adult human. Owners can do this by insulating quarters, providing adequate ventilation, and using good sanitation practices.

The crow of male chickens tends to bring the greatest objection from neighbors. Most localities only allow you to raise four to six female chickens and no males at anytime.

Proper landscaping walls and vegetative barriers can provide screening and also help muffle sounds. These barriers also keep your activities out of full view, which often leads to fewer questions and complaints.

Odor should not be an issue if pens are large enough for the birds, are cleaned regularly, and kept dry. Waterfowl, due to the wet nature of their environment, are hard to keep on a small urban lot due to odors. However, it can be done with proper planning.

A few other guidelines that local ordinances may require in order to raise chickens in your area include a minimum lot size to be allowed to raise poultry, a minimum or maximum coop or pen size, and an application for a permit to raise poultry on your property, which may also require an annual fee and inspection by a predetermined party.

Once you do have poultry, remember that you are responsible for providing "good management practices" for your flock. Good management practices are the minimum care that is required to humanely maintain the birds. Caring for the birds and tending to their basic needs is a constant responsibility--24 hours a day, 7 days a week.

Birds need to be sheltered from the environment and predators.

Birds need a constant supply of fresh water.

Birds need to be fed a balanced diet appropriate for their age and state of production--starter diets for 0-6 weeks, grower diets for 6-18 weeks, and layer diets for birds over 18 weeks of age that are in egg production.

Birds should have a 3-inch base of dry litter such as pine shavings in their pen, and it should be cleaned every 6 weeks. If the birds are raised in wire floored pens, the waste pans should be cleaned daily to prevent odors and flies.

Eggs should be collected daily.

As an owner, you should monitor bird health and seek help if anything appears questionable.

If you are just becoming interested in raising poultry on your property or have been for years, remember that diplomacy and cooperation can help avoid conflicts. If you are raising birds in an urban environment, follow some of the suggestions provided in this fact sheet so you can prevent yourself and others raising animals in your community from unnecessary conflict and ordinances.

## MANAGING SMALL WOODLOT PARCELS

By Peter Smalldige

In New York and most of the Eastern states, the greatest proportion of woodland owners have relatively small parcels. A “small” parcel size is not defined, but often considered to be less than 10 acres, or less than 50 acres. The USDA National Woodland Owner Survey (NWOS) offers a feature to make tables and charts about owner attributes and intentions (Google search “nwos table maker”). The NWOS data for NY indicates that 62% of owners have parcels less than 9 acres and 28% of owners have parcels that are 10 to 49 acres. The average parcel size is 18.3 acres. The 90% of owners with parcels less than 50 acres collectively control about 42% of the woodlands.



**Figure 1.** The costs for logging depends in part on the type of equipment, but for any logger there are costs for moving equipment and setting up the harvest. On small parcels, the cost per acre is higher than on larger parcels.

Small is perhaps best defined, from the owner’s perspective, relative to what the owner wants to accomplish. From that perspective, a parcel might be too small, or not. Statewide however, 13% of owners with parcels less than 49 acres have had commercial harvests, 4% of those with parcels less than 10 acres have had a commercial harvest. These small-parcel owners want to be active on their land, but are challenged by the scale of operations. As parcel sizes decrease, the feasibility for commercial activity also decreases, but there are still options.

The challenges of extracting woodland products, especially sawlogs or firewood, relate to the costs to the logger or forester of operations versus the benefit or value obtained from those products. The fixed costs include, for example, those associated with moving equipment, building landings for log trucks, arranging for log trucks, and in some communities town or municipal permits.

(Figure 1) Another fixed cost is the opportunity cost of harvesting a small parcel with the time to coordinate and execute the harvest, rather than setting up on a larger parcel that will provide a greater volume and value. Variable costs, or those that differ among harvests, might be less or greater on small parcels. On small parcels the skidding distance will be less and thus a reduced cost. However, there will be fewer options for landings, and a higher percentage

of the harvest area adjacent to neighbors. Thus, as parcel sizes get smaller, the cost of operations on a per acre basis increases. For a business (logging is ultimate a business) to justify operating on a parcel, the value must be greater than the cost.

Woodland owners with small parcels may be placed in a compromised position given the need for value to exceed cost. Some owners will decide to take no action because the changes in their woodlands would be too substantial. Owners who need to have some management applied, such as for forest health or forest products, need to find strategies to have the work done, but without overly excessive harvesting that could nullify the owner’s objectives.

There are two paths an owner might take. Any given owner might take one or the other at different times for different circumstances. For lack of better terms, these paths are “Do it Yourself” (DIY) and “commercial.”



**Figure 2.** DIY harvests will often make use of small equipment belonging to the owner or a family member. Owners need to use particular care because they usually lack the skill of a professional logger and their equipment has fewer safety features than commercial equipment.

Regardless of the path an owner pursues, a forester should be involved in the planning, design and oversight of the activities. Because of the smaller area and likely lower values as compared to larger parcels, foresters might be more inclined to charge a flat rate rather than percentage of the harvest value. Foresters will also know the loggers who work in an area and who might have a business strategy with lower costs than other loggers. Owners should start with a DEC (Department of Environmental Conservation) public service forester, but may ultimately need to select a private-sector forester from a list provided by the DEC.

The DIY option requires that the owner or the owner’s friends have the necessary equipment, skill with that equipment, time and motivation. These are real investments and easy to underestimate. However, many owners thrive on this type of activity, or have friends who do. This option effectively reduces the costs by excluding or reducing the need to transport equipment, pay salaries, and pay overhead. Owners should be aware that their investment of time has value because they could be doing something else that might be more important or more productive. Time and motivation are important, but if their availability

is overestimated the consequences may not have great consequence. However, overestimating the skill or appropriate equipment for the task could result in personal injury, death, or damage to the woods. Of particular note is the essential need to be able to use directional felling techniques when cutting trees. Also, having the right equipment to maneuver in the woods and extract the size and quantity of logs being harvested. Another reality is that the DIY small-scale logging is hard and slow work. The equipment can't move large quantities of wood (Figure 2). It is typically impractical to move commercial volumes of wood with small-scale equipment.

The DIY path results in logs at the disposal of the woodland owner. The owner may be able to process the logs for firewood, hire a portable bandsaw to make boards for sale, or sell the logs roadside. Each of these processes includes additional effort for the owner, and as regards the sale of products may increase the owner's tax liability.

Skill and the correct equipment are essential. At a minimum, anyone felling trees should have training, such as Game of Logging, to directionally fell trees. The details of the topography, soils, season, and size of trees will determine the minimum types of equipment that are needed. Video of small-scale logging are available at [www.youtube.com/ForestConnect](http://www.youtube.com/ForestConnect) and in the discussion forum at [www.CornellForestConnect.ning.com](http://www.CornellForestConnect.ning.com)



**Figure 3.** Owners who have developed a good working relationship with their neighbor, through regular communication, may be able to align their individual objects to use the same forester and logger.

The commercial path requires that the owner find some way to change the cost-to-value ratio. This could be through either an increase in the value or volume of wood harvested, or reducing the cost per unit of wood harvested. Increasing value might be accomplished as increasing total value, total volume, or the value per unit. One strategy to change the cost-to-value ratio is through a more intensive harvest on the property, or focusing on just the high-value trees. Either of these approaches could be

counter to the owner's objectives, is exploitive, and could degrade the condition of the woods. The forester needs to know the owner's objectives and be instructed to not compromise those objectives.

A second strategy is for the owner to work with another landowner, ideally a neighbor, to increase the total value and volume, and also reduce the cost per acre (Figure 3). Each owner could have different objectives, and require harvests based on different silvicultural prescriptions and different harvest intensity. Although easily said, the feasibility is low for finding a neighbor who is ready to harvest at the same, and use the same forester and logger. A similar strategy would be for the owner to join a woodland cooperative, but cooperatives are rare.

The challenges to managing small parcels are daunting. In some cases the owners may decide that a harvest isn't feasible. If the final goal is to manipulate the trees that are present to create better wildlife habitat, improve forest health, or improve tree growth for bigger trees there are non-harvest options that the owner could discuss with their forester. One such option might be the use of selective herbicides or mechanical girdling to kill some trees and allow adjacent trees better growth. In all cases, the owner needs to have a clear awareness of their objectives to avoid the potential pitfalls of the management strategies they pursue.

*Peter Smallidge, NYS Extension Forester and Director, Arnot Teaching and Research Forest, Department of Natural Resources, Cornell University Cooperative Extension, Ithaca, NY 14853.*

Support for ForestConnect is provided by the Cornell University College of Agriculture and Life Sciences and USDA NIFA.

# Cornell Cooperative Extension

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## Tioga County

### You Are Invited To Attend

2018 Friend of Extension Dinner and Annual Meeting  
Monday, December 10<sup>th</sup>, 2018 from 6 - 8:30 pm  
in the Broome Room at Tioga Downs Resort & Casino  
\$25 per person

### Please join us in recognizing:

4-H Youth Development - Katherine Guiles  
Family Development - Beth Harrington  
Agriculture and Horticulture - Eleanor Ernest & Angie Smith  
Community Development and Public Issues - Stray Haven Humane Center & SPCA  
Campus Collaborator - Dr. Betsy Lamb  
Spirit of Extension - Tioga County Agricultural Society  
Friends of CCE Tioga - Tom & Linda Gartung  
Board and Staff members

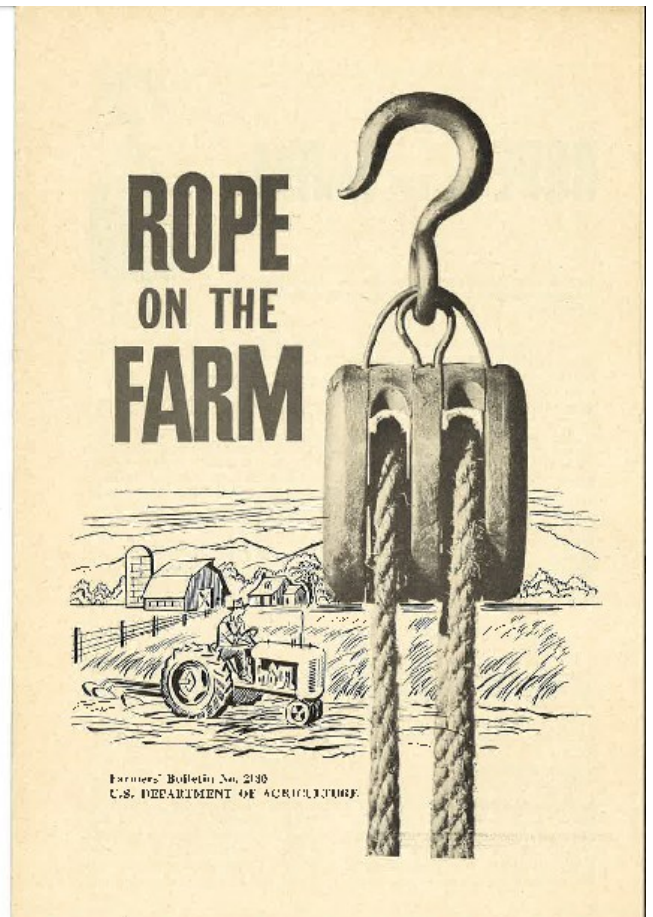
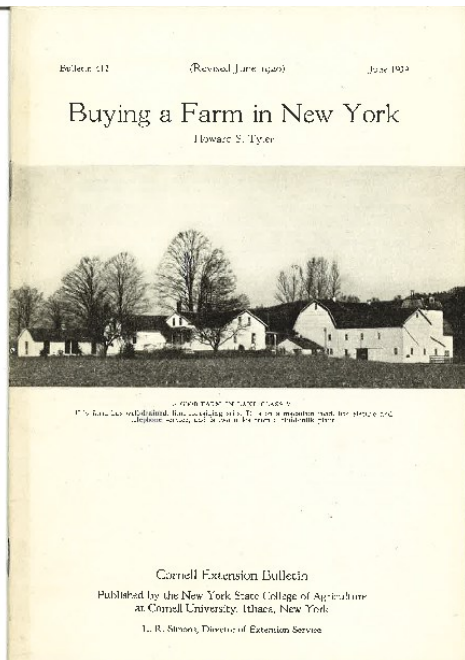
Please RSVP by November 30th by calling 687-4020  
Send a check with your name to 56 Main Street, Owego NY 13827  
or send an email to Tina Murphy at [t1m8@cornell.edu](mailto:t1m8@cornell.edu)



*Helping You Put Knowledge To Work*

*Cornell Cooperative Extension of Tioga County is an equal opportunity, affirmative action educator and employer.*

## Serving Tioga County since 1915



## Old Extension Bulletins Still Have Plenty to Offer

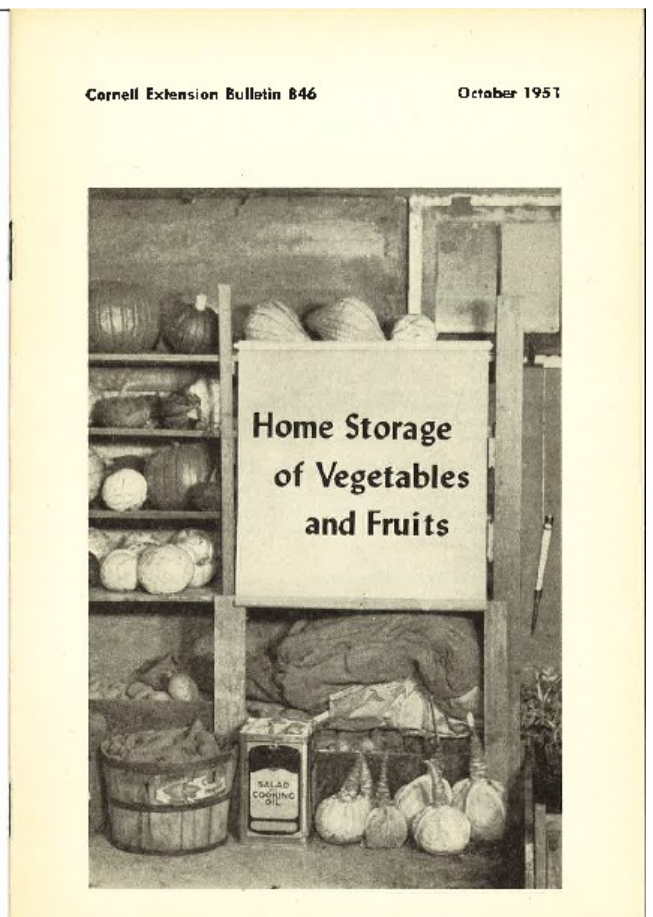
Barb Neal, CCE Tioga

I have been lucky enough to be the recipient of a trove of old Cornell Cooperative Extension bulletins and rural magazines for children. I have been enjoying reading some of them and marveling at the fact that the more things change, the more they stay the same!

There are some great tips on farming and gardening in these bulletins!

The winter is traditionally a quieter time in my office, so I hope to start scanning these bulletins and sharing them with readers of the Farm and Garden. Look for a link to a bulletin in each of the coming issues.

If you would like to spend an interesting hour or so, come on into my office and browse through the bulletins. We can make a few copies if you like. Just be sure to call ahead to be sure I am at my desk.



# Agriculture Energy Audit Program

NYSERDA offers technical assistance to identify energy efficiency measures for eligible farms and on-farm producers, including but not limited to: dairies, orchards, greenhouses, vegetables, vineyards, grain dryers, and poultry/egg. NYSERDA will assign Flexible Technical Assistance (FlexTech) Program Consultants to perform energy audits for eligible farms.

## Who Can Apply

Farms must be customers of a New York State investor-owned electric utility and pay the System Benefits Charge (SBC). Please check your farm's current utility bills.

## How it Works

You can request the level of energy audit that best fits your farm's needs. NYSERDA will assign a Flexible Technical Assistance Consultant to visit your farm and perform an energy audit at no cost to you.

Level	Audit Activities	Type of Report that the Farm Receives
Comprehensive	Detailed energy audit	Energy audit report with calculated evaluations of appropriate energy efficiency measures including simple payback; meets ANSI/ASABE S612 standards
Targeted	Energy audit focused on specific systems, energy efficiency measures, or renewable energy	System-specific energy analysis report

\$3,500,000 is available to fund audits. NYSERDA reserves the right to extend and/or adjust funding for audits should other program funding sources become available.

## How to Apply

Download, complete, and submit the [Agriculture Energy Audit application](#) [PDF]. You can submit your application via email to [aeep@nyserdera.ny.gov](mailto:aeep@nyserdera.ny.gov) or mail your application to:

NYSERDA  
Attn: Agriculture Energy Audit Program Administrator  
17 Columbia Circle Albany, NY 12203-6399

## Contact

Program Representative  
1-800-732-1399  
[aeep@nyserdera.ny.gov](mailto:aeep@nyserdera.ny.gov)

# Succession Planning Kickoff Seminar For Farm Businesses



This year's conference will focus on addressing the *challenges surrounding succession planning* for farm businesses, including tax, legal and estate implications, family communication, and financial issues.

Speakers will include Steve Walker, Esq., Erica Leubner, MSW, of NY FarmNet, and John Lehr of Farm Credit East. In addition, a *diverse panel of producers* will share their experiences around business transition.

Following the program, producers will be able to sign up for a *three part follow up workshop series*, which will focus on helping the farm prepare to move forward with their transition planning process.

**December 14th, 2018**

**Location:** Doubletree Hotel,  
E Syracuse, NY

**Time:** 9am–3pm,  
Registration at 8am

**Registration fee:** \$45 first  
farm attendee, \$40 each  
additional farm attendee

## Registration Information

Online using a credit card at:

<https://cnydfc.cce.cornell.edu/events.php>

Or by contacting Veronique at  
315.866.7920 or [vas8@cornell.edu](mailto:vas8@cornell.edu)

Questions? Contact Anna Richards at  
[ar746@cornell.edu](mailto:ar746@cornell.edu) or your local Cornell  
Cooperative Extension Educator



**Cornell Cooperative Extension**  
Central New York Dairy, Livestock and Field Crops

**Cornell Cooperative Extension**  
Herkimer County

**Cornell Cooperative Extension**  
Onondaga County

**Cornell Cooperative Extension**  
South Central NY Dairy and Field Crops Program

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

### Grow Your Farm Business Course Series

**What:** Grow Your Farm Business Course Series

**When:** Wednesdays 6 – 9pm, January 16 – March 20, 2019

**Where:** Just Be Cause Center, Ithaca NY

Course Fee: Sliding Scale

**Register:** <https://groundswellcenter.org/farmbusiness>

Ithaca, NY – Enroll in Groundswell Center for Local Food & Farming's *Grow Your Farm Business Course*, which includes presentations, activities and farmer panels aimed at teaching students the core pieces of planning a farm business. Session topics include goal setting, assessing financial feasibility, marketing, and more in order to create a business plan! Woven into the curriculum are topics of equity and food justice in the food system, including examples of realistic ways to approach these within the scope of your business models. Also hear about resource opportunities from local and Federal farm support agencies. This course is designed as a 10-week *intensive*, however, sessions are also available for *individual* enrollment.

Students enrolled in the 10-week intensive gain access to individual business guidance and consultation from course instructors, develop a strong farmer to farmer network and have the opportunity to present the business plan developed in this course to instructors and peers.

This course is taught by a team of business instructors, farmers and social justice leaders. Check online to learn more about this year's instructors and course schedule.

**Register** by January 2nd at <https://groundswellcenter.org/farmbusiness> or by calling 607-319-5095.

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### Empire State Barley and Malt Summit

December 12th and 13th at Holiday Inn, 441 Electronics Pkwy, Liverpool, NY 13088. Visit our program registration site. After 11/15, registration increases to \$150. Contact Cheryl Thayer with any questions about registration.

### Southern Tier Maple School

December 15th from 9:30am to noon at the Tyrone Fire Department; 3600 State Route 226; Tyrone New York 14887. Cornell Cooperative Extension's State Maple Specialist, Steve Childs, will lead this annual refresher to help maple producers of all levels improve the productivity, efficiency and profitability of their operations. This workshop will also qualify for certification for the new "NYS Grown and Certified Maple". Light refreshments provided. \$5 donation at the door. For general information on maple syrup production, please visit: [www.cornellmaple.com](http://www.cornellmaple.com) For additional questions, contact Brett Chedzoy of Schuyler CCE at 607-535-7161, or by email at: [bjc226@cornell.edu](mailto:bjc226@cornell.edu)

### Spotted Lanternfly a learn more session

January 15th, Tuesday from 9-11AM in Room 120 Human Services Complex Montour Falls. Guest speaker, Mark Whitmore is a Forest Entomologist in the Department of Natural Resources at Cornell University. Mark started his career at the University of Washington studying the natural enemies of Spruce beetles in Alaska. He then studied at UC Berkeley, focusing on Biological Control of forest pests, researching parasitoids of pine bark beetles. Mark has been at Cornell since 1989 and currently works with professional land managers, state and federal agencies, local government officials, and concerned citizens to help them understand the issues and strategies for minimizing the impact of non-native invasive insects such as the Emerald Ash Borer and Hemlock Woolly Adelgid. Mark is currently the director of the New York State Hemlock Initiative and the Hemlock Woolly Adelgid Biocontrol Research Lab at Cornell.

Contact: Roger Ort [RLO28@cornell.edu](mailto:RLO28@cornell.edu) for more information

### Beginner Maple Production Workshop

January 17, 2019, 6:00 PM - 8:00 PM. Mr. Stephen Childs, New York State Extension Specialist in the Department of Natural Resources at Cornell University; will be the presenter. The workshop will cover a variety of aspects of maple syrup production including: why make maple syrup, tree identification, tree health, tapping, sap collection and handling, boiling, energy efficiency, finishing and grading syrup, canning, marketing and regulations. This workshop is aimed at the small or beginning maple producer and would be useful to the homeowner looking to tap a few trees in the backyard or someone wanting to start small-scale commercial maple production. Registration is required. To register, call Seneca County CCE at (315) 539-9251, email [seneca@cornell.edu](mailto:seneca@cornell.edu), or register online at: [https://reg.cce.cornell.edu/SenecaMaple2019\\_245](https://reg.cce.cornell.edu/SenecaMaple2019_245)



Location—Vince's Park Corner of Rte 318 and 5 & 20  
Seneca Falls, New York 13148

## Save the Date for the 2019 Becker Forum on Farm Labor

Farm worker housing, labor law compliance, and the federal guest worker program (H-2A) are key themes for the 2019 Becker Forum. The event will take place on Monday, January 14 at the Holiday Inn in Liverpool, New York. Employer compliance with new sexual harassment prevention laws will also be a prominent topic.

Featured speaker Lynn Jacquez, from the CJ Lake law firm in Washington, DC will address what policy positions to expect from the new Congress and the Administration in the year ahead. She will also address immigration enforcement trends and worksite issues that are important for farm employers.

Three presentations will focus on farm-provided employee housing. Nancy Hagopian from the NYS Department of Health will provide recommendations for improving existing housing. Ed Urbanick from Farm Credit East will discuss financing for construction and renovation of housing. A featured farm employer panel will discuss best practices for managing worker housing.

The forum will also provide information related to the H-2A guest worker program, including how some dairy farms successfully using it to access workers. Current changes in the H-2A program will be reviewed and information will be provided on how to effectively hire foreign-born workers through the program.

Attorney Michael Sciotti from the Barclay Damon Law Firm in Syracuse will inform farm employers about what they must do to comply with New York's new regulations on sexual harassment prevention policies and training.

At the end of the afternoon there will be an opportunity for questions and discussion regarding critical workforce issues. For a complete agenda and to register go to <http://nysvga.org/expo/information/>, or email [nysvegetablegrowers@gmail.com](mailto:nysvegetablegrowers@gmail.com).

**To Serve  
And  
Strengthen  
Agriculture**



**FARM  
BUREAU  
NEW YORK**  
TIOGA COUNTY

**Local Farms,  
Local Food,**



*Members are at the heart of Farm Bureau, a grassroots-driven organization of families and individuals in New York who care about agriculture.*





### *Helping You Put Knowledge To Work*

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