

# FARM & GARDEN



**Cornell University**  
Cooperative Extension  
Chemung & Tioga Counties

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

May 2019

### News From CCE

*By Barb Neal, CCE Tioga*

Spring is here, and with it the busy growing season. After all the rain we had last fall (and this spring so far!) and the long winter, I am truly looking forward to long days of sunshine.

I have spent much of the winter working with farmers interested in growing the newly legal CBD hemp. There is a LOT of interest in growing hemp in the Southern Tier, and a number of processors either are here in the Southern Tier, or are planning to build capacity here. Expect to see fields all around our counties with these new crops. Clearly, there is much interest and anticipation that this crop can be grown profitably.

Just the other day, New York Ag and Markets re-opened permit applications for CBD hemp. While it is likely too late for growers to get a crop in the ground this year if you have not already secured seed and equipment, it is good news for folks who have been contemplating growing this crop.

Cornell University has just committed the funds to have a specialist in emerging crops (including hemp) to be a member of Harvest NY and housed in the Southern Tier. We educators are working hard to keep abreast of the latest developments, so if you are interested in the crop, let us know and we will provide you with resources and guidance.

### Plant Sales!

**Tioga Master Gardener Plant Sale—  
June 1 from 8 to noon**

**Chemung Master Gardener Plant  
Sale—May 16 and 17, 9 am to 4 pm.**

### Inside this issue:

- Rose mites
- Flowers and veggies together
- Ag Census insights
- Disaster loans available
- Maple woodlots can be bird habitat
- Oak wilt
- Lots of workshops
- And more!

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Mary Kate Wheeler, SCNY Farm Business, [mkw87@cornell.edu](mailto:mkw87@cornell.edu)

## Growing Shiitake Mushrooms Workshop

May 18, 2019, 9:00 AM - 11:30 AM Learn to grow shiitake mushrooms! This lecture and demonstration will walk you through the steps of inoculating, caring for, and harvesting mushrooms from hardwood logs. We'll cover many aspects of production, from choosing logs and where to put them to avoiding pest issues and when deciding when to pick. Shiitake are great to eat and fun to grow; come see how it's done!

Class size is limited to 25 people. Cost is a \$10

per person. Pre-registration is required to reserve seat. For more information and to register, please contact Shona Ort at 607-734-4453 ext. 227 or [sbo6@cornell.edu](mailto:sbo6@cornell.edu) \$10 person.



## Workshop: Edible wild plants all around us

May 22, 2019; 5:00 – 6:00 PM. Weeds can be valuable herbal medicines or delicious greens on your salad plate. Join Cornell Cooperative Extension of Chemung County to delve into the world of edible weeds. You may like what you find in your yard! Speaker: Ken Wida, Chemung County Master Gardener held at Steele Memorial Library (IT room), 101 E Church Street, Elmira, NY. Workshop fee: Free, but a \$3 suggested donation helps support our Horticulture Program. Please register with CCE Chemung at 607-734-4453, or [jy578@cornell.edu](mailto:jy578@cornell.edu).

## Support Master Gardeners in your community—visit their plant sales!

**Chemung County Master Gardener Plant Sale—May 16th and 17th, 9 am to 4 pm (see flyer on page 7)**

**Tioga County Master Gardener Plant Sale—June 1, from 8 am to noon**

Want to support your local Master Gardeners and get a good deal on plants as well? Mark your calendars for the Master Gardener plant sale in your county. It is a great way to connect with your Master Gardeners, support their program and bring home some plants that will brighten your property.

Arrive as they open to get the best selection!





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).



## Flowers among the veggies

*By Barbara Classen, Chemung County Master Gardener*

Will you leave room for flowers in this year's vegetable garden? If you've been growing flowers among your veggies, you already know some of the benefits. If the idea is new to you, this may be the season to explore some of its benefits. Here's some food for thought (*couldn't resist*) highlighting some of the ways that flowers can contribute to garden health, introduce new foods, and, of course, bring added beauty to your garden and home.

**Garden Health:** We all know that adequate pollination contributes to a bountiful harvest. Adding flowers among your veggies ups your chances for attracting pollinators to your garden. The list of possibilities is too long to reproduce here, but among the stars are alyssum, angelica, butterfly weed, coneflowers, coreopsis, cosmos, marigold, sunflowers, and yarrow. Herbs offer another option. Consider letting some of your herbs go to flower. The small flowers of dill, fennel, parsley, and thyme are especially attractive to pollinators.

There are a host of insect allies worth attracting to our gardens. Some, like damsel bugs, lacewings and a range of beetles (lady, round, soldier, and others) are voracious **predators**. They will eat the insects that feast on your crops. Others (for instance, braconid wasps and tachinid flies) are **parasites** that lay their eggs on a pest-infested plant. The hatchlings then feed on the pests. A quick search of the internet will match predators to prey and parasites to hosts as well as predators and parasites to their preferred floral banquet.

Finally, some flowers serve as repellants, discouraging potential insect pests from setting up housekeeping in your garden. Other flowers function as "trap" plants, drawing the insects that might otherwise camp among your beans, cucumbers or tomatoes.

These strategies are not fool-proof. Insects are no less fussy eaters than your four-year-old. For reasons known only to the bugs, your neighbor's gardens may

be a bigger draw. It might take some time for the insect allies you want to discover the delights on offer in your garden. They may not stay around unless you cultivate a habitat that offers them adequate food, water, and shelter. However, the benefits can be worth the extra efforts.



**Edible Flowers:** There isn't room to cover this topic in depth, but here are some standouts. Sunflowers are a banquet. The seeds, of course, are tasty out-of-hand or sprinkled on a salad. The same salad might benefit from a sprinkling of sunflower petals, and you can stir-fry their seedlings and treat their leaves like familiar greens. Other flowering plants that offer a variety of culinary uses are calendula, lavender, nasturtium, and borage. The latter reportedly is a great companion plant for tomatoes, squash, and cabbage. It is also nourishing, supplying B vitamins and beta carotene. Other edible flowering plants supplement Vitamins A, C, and/or D as well as iron, antioxidants, and, in the case of sunflowers, magnesium and potassium. To learn more, check out websites such as [www.commonsthought.com](http://www.commonsthought.com) and [https://whatscookinginamerica.net](http://whatscookinginamerica.net) (try to ignore the generous supply of ads they dish up).

**Garden Aesthetics:** To dedicated vegetable gardeners, healthy vegetable plants are already beautiful. Annuals and/or perennials more traditionally found in decorative beds can only make the garden lovelier

while simultaneously attracting pollinators, combating insect pests, and offering dietary delights. Use them as companion plants, trap plants, or repellants. Plant a border of marigolds or nasturtiums - they're pretty and powerful. Finally, if you have the space, consider adding a row or two of cutting flowers. The possibilities are abundant, restricted only by your personal taste and the décor of your home or patio. Try annual cosmos, snapdragon, or zinnia and enjoy the bonus that they are all generally deer resistant. Likewise deer resistant are perennials such as delphinium, black-eyed Susan, and veronica. If deer aren't a concern, the options are even more plentiful. You really can't lose by experimenting with flowers among your veggies.



## **Tioga County Water Quality Coordination Committee Hosts 19th Annual Stream Cleanup**

May 11th – May 18th 2019

Are you interested in cleaning up your environment? Are you looking to do something to improve your community? Well here is your chance; May 11th through May 18th the Tioga County Water Quality Coordinating Committee (WQCC) will be holding their 19th annual stream cleanup event. It's easy to be involved all you need to do is register with the Tioga County Soil and Water Conservation District (SWCD). If you decide to volunteer you can select any stream within the County to cleanup and will receive free trash bags, gloves, and gift for all participants to commemorate the event.

The Soil & Water Conservation District and the town highway departments also partner in this event to coordinate pickup, disposal and then transport the collected trash to Taylor's Garbage Service, in Owego. If you are interested in registering a group for this year's stream cleanup program or sponsoring the event please contact Miranda Palmer at the Soil and Water Conservation District at (607) 687-3553, emailing [Palmerm@co.tioga.ny.us](mailto:Palmerm@co.tioga.ny.us), or stopping by our office Monday through Friday 8:00 a.m. to 4:00 p.m. on 183 Corporate Drive in Owego.

A special thank you to our long time sponsors of the event, because without their support this event would not be possible, Mead Farm, F.S. Lopke, Jochum Logging, Hiawatha Island Boat Club, Town of Owego, and Johnsons Pools & Spas.



## Study sheds light on major disease in roses

Mite is causing extensive damages to the nation's \$250-million-a-year rose industry

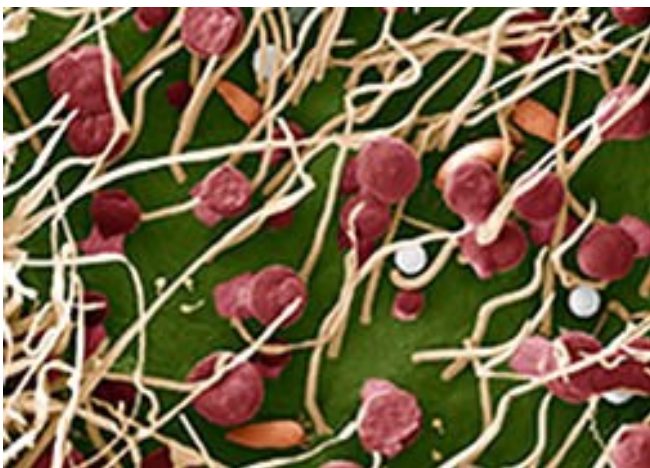
PUBLISHED ON APRIL 9, 2019



The rose bud mite (*Phyllocoptes fructiphilus*) is about half the size of a grain of salt, but it spreads rose rosette virus (RRV), which is responsible for an incurable rose disease found in 30 states. (Jay Knight, Flickr/Creative Commons)

BELTSVILLE, Md. — Agricultural Research Service ([ARS](#)) scientists in Beltsville, Maryland and their colleagues have discovered why a mite is causing extensive damages to the nation's \$250-million-a-year rose industry and why it's so hard to detect and control. It seems the mite hides deep in the flower's internal organs.

The rose bud mite (*Phyllocoptes fructiphilus*) is about half the size of a grain of salt, but it spreads rose rosette virus (RRV), which is responsible for an incurable rose disease found in 30 states.



A rose mite (seen in orange) hides among the flower buds deep within a rose. (USDA ARS)

A study by researchers at the ARS [Electron and Confocal Microscopy Unit](#) and their colleagues produced stunning,

high-resolution images that, for the first time, identified the mite's "hiding spots" deep within rose flowers and leaf buds. The images showed the mite at the base of the rose's glandular hairs on the sepals, which are tiny leaf-like appendages in the base of the flower. By imbedding itself so deeply among the inner floral parts, the rose bud mite can avoid sprays or other treatments applied as controls.

The images also showed two other mites on roses, including one (*Eriophyes eremus*) that was found in the folded stipules at the base of the leaf stalk. The other mite (*Callyntrotus schlechtendali*) was discovered on the open surface of the first time these two mites were found on roses.



A magnified image of a rose mite that spreads rose rosette virus. It is hard to detect because it hides deep in the rose flower's buds. (Courtesy Photo)

The findings should prove useful to rose producers, breeders, growers, scientists and others trying to find ways to control rose mites. Several predatory mites, for instance, were also found on roses sampled and could potentially be used as biological controls. Roses from 10 states and the District of Columbia were sampled in the study.

The study's lead author is Gabriel Otero-Colina, from the Colegio de Postgraduados in Texcoco, Mexico. He was a visiting scientist at the ARS microscopy unit. [Gary Baughan](#), who is director of the unit, is the study's corresponding author. Co-authors include researchers from West Virginia University, and ARS researchers from the [National Arboretum's Floral and Nursery Plants Research Unit](#) also located in Beltsville.

Results were published in the *Journal of Environmental Horticulture*.

The [Agricultural Research Service](#) is the U.S. Department of Agriculture's chief scientific in-house research agency. Daily, ARS focuses on solutions to agricultural problems affecting America. Each dollar invested in agricultural research results in \$20 of economic impact.





## **Pond Workshop**

**June 12, 2019; 4 to 6pm**

**GST BOCES BUSH Campus**

**459 Philo Rd, Elmira, NY 14903**

**Building 3: Rooms 306 & 308**

### **Topics:**

- Site Selection
- Pond Construction
- Aquatic Weeds & Weed Control
- Algae Control
- And More

Free to attend. Class size limited to 25 individuals, ages 12 years old and up. Pre-registration is required. For more information and to pre-register, please contact Shona Ort at 607-734-4453 ext 227 or sbo6@cornell.edu.

**This workshop is a collaboration of CCE Chemung, Chemung SWCD, and GST BOCES Conservation Program.**



**Cornell Cooperative Extension**  
**Chemung County**

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# Spring Plant Sale

**May 16 and 17, 2019;**

**9:00 AM – 4:00 PM**

**Place: Cornell Cooperative Extension of Chemung County**

**Address: 425 Pennsylvania Avenue, Elmira NY; Room 110**

A huge variety of vegetable transplants, annuals, herbs, perennials, flowering shrubs, fruit crops, hanging baskets, etc.

Knowledgeable Chemung County Master Gardeners are on hand to answer questions about soil improvement, plant care, pruning and dividing, lawn maintenance, etc.

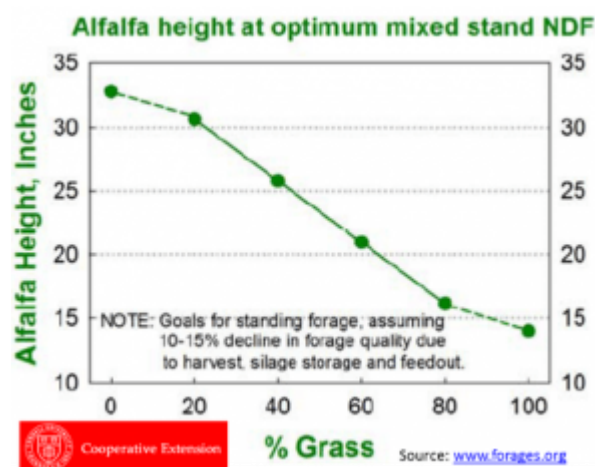
Bring baskets, wagons, and other containers for transporting plants.

Contact 607-734-4453 or [jy578@cornell.edu](mailto:jy578@cornell.edu) for details.





## First Cutting Monitoring – It's Time to Check Your Fields!



Once again, the SCNY Dairy & Field Crops Team will be monitoring height of alfalfa each Tuesday in May to help predict quality and %NDF for first cutting hay crop. Alfalfa height has been proven to be a reliable indicator of NDF values in the field for alfalfa and mixed alfalfa/grass stands, as well as pure grass stands.

For prediction of NDF content, the height of alfalfa as an indicator is as follows:

100% grass stands – cut when nearby alfalfa is 14 inches tall (achieves 50% NDF)

50/50 grass/alfalfa stands – cut when nearby alfalfa is 22 inches tall (achieves 44% NDF)

100% alfalfa stands – cut when alfalfa is 28 inches tall (achieve 40% NDF)

From Kevin Ganoë, the CNY Dairy, Livestock & Field Crops Team's Forage Specialist:

*Predicted days to cut are based on daily NDF increases for grasses of 1.0% point, 50/50 mixed alfalfa/grass stands of 0.8% points, and alfalfa of 0.5% points and are adjusted for the coming week's weather. Typically NDF increases about 0.8 to 1.2 per day for grasses, with cooler weather being the lower end of the range and warmer weather being the higher end. For alfalfa, NDF increases about 0.4 to 0.7 per day, also dependent upon warm/cool weather.*

A map of the fields where we plan to monitor alfalfa height can be found at <https://www.zeemaps.com/map?group=3412936> and will be updated as fields are defined. Hovering over map markers reveals the road name where the field is located.

The SCNY Dairy & Field Crops Team monitors fields in Onondaga, Cortland, Tompkins, Broome, Tioga and Chemung Counties. Other regional teams and County CCE Associations around the state also monitor alfalfa height and send out weekly reports.

Joe Lawrence, Dairy Forage Systems Specialist with Cornell's PRO-DAIRY has put together the following list of CCE 1st Cutting Monitoring Programs, and can be reached at [jrl65@cornell.edu](mailto:jrl65@cornell.edu).

## Results of meat packing plant study released

[https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/3/3955/files/2019/04/USDA\\_Meat\\_Processing\\_Extension\\_Bulletin-1a9w3x7.pdf](https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/3/3955/files/2019/04/USDA_Meat_Processing_Extension_Bulletin-1a9w3x7.pdf)

Between February 2017 and March 2018, New York and New England's USDA red meat harvest plants were interviewed and surveyed. This survey was conducted to provide insight as part of a larger research project titled "Overcoming Supply Chain Barriers to Expanding Northeast Ruminant Meat Production" which is funded by USDA [NIFA Award No. 2016-68006-24744] and researched by Tufts University, Cornell University, and Design & Urbanism Architectural LLC. Lead investigator for this survey, MacKenzie Waro states that "This project wouldn't have been possible without the processors who opened their doors to us. I hope that the readers will get a better understanding of the harvest and processing industry and how the production and processing chain can work together".

Key findings documented in the study relate to labor, cooler space, funding for expansion and impact of seasonal production patterns.

The authors would like to thank all of the harvest plants that participated in this study. Due to their contribution of time and transparency, we were able to gain valuable information that will benefit the livestock and processing industries.

### Specialty Fruit Survey

Are you interested in diversifying your farmers market, farm stand, or CSA offerings with specialty fruit crops? Have you ever thought about growing currants, kiwiberries, goji berries, beach plums, or other "unusual" fruits? Tell us about it! We are gauging grower interest in specialty fruit crops. Your input will help guide a project that aims to develop growing recommendations and enterprise budgets for unusual fruit crops in New York. Fill out our online survey by clicking on the following link: <https://cornell.qualtrics.com/jfe/form/>



## EPA Takes Next Step in Review Process for Herbicide Glyphosate, Reaffirms No Risk to Public Health

Today, the U.S. Environmental Protection Agency (EPA) is taking an important step in the agency's review of glyphosate. As part of this action, EPA continues to find that there are no risks to public health when glyphosate is used in accordance with its current label and that glyphosate is not a carcinogen. The agency's scientific findings on human health risk are consistent with the conclusions of science reviews by many other countries and other federal agencies. While the agency did not identify public health risks in the 2017 human health risk assessment, the 2017 ecological assessment did identify ecological risks. To address these risks, EPA is proposing management measures to help farmers target pesticide sprays on the intended pest, protect pollinators, and reduce the problem of weeds becoming resistant to glyphosate.

"EPA has found no risks to public health from the current registered uses of glyphosate," said **EPA Administrator Andrew Wheeler**. "Today's proposed action includes new management measures that will help farmers use glyphosate in the most effective and efficient way possible, including pollinator protections. We look forward to input from farmers and other stakeholders to ensure that the draft management measures are workable, realistic, and effective."

"If we are going to feed 10 billion people by 2050, we are going to need all the tools at our disposal, which includes the use of the glyphosate," **U.S. Secretary of Agriculture Sonny Perdue** said. "USDA applauds EPA's proposed registration decision as it is science-based and consistent with the findings of other regulatory authorities that glyphosate does not pose a carcinogenic hazard to humans."

Glyphosate is the most widely used herbicide in U.S. agriculture and has been studied for decades. Glyphosate is used on more than 100 food crops, including glyphosate-resistant corn, soybean, cotton, canola and sugar beet. Non-agricultural uses include residential areas, aquatic areas, forests, rights of way, ornamentals and turf.

Once the Federal Register notice publishes, the public will be able to submit comments on EPA's proposed decision at [www.regulations.gov](http://www.regulations.gov) in docket # [EPA-HQ-OPP-2009-0361](#). Public comments will be due 60 days after the date of publication in Federal Register. EPA's responses to the comments received on the draft ecological and human health risk assessments and the benefits assessment will be in the docket.

## Census of Agriculture Reveals Struggles Faced by Tioga County Farmers

*By Zack Baker, Tioga County Economic Development & Planning*

The US Department of Agriculture released the results of the 2017 Census of Agriculture on April 11<sup>th</sup>. The Census of Agriculture is a comprehensive measure of farms and ranches completed every five years, providing an abundance of information about land use, farm ownership and decision-making, demographics, production practices, income and expenditures.

Preliminary analysis of the data shows a net loss of one farm in Tioga County between 2012 and 2017, leaving a total of 535 active farms in 2017. Comparatively, the number of farms in New York State fell by 6% over the same time period, a loss of nearly 2,100 farms. The total market value of agricultural products sold in the county grew by 11% and was measured at \$40,857,000. The total acreage of farmland increased by 5% to 113,182 acres. The average farm size rose from 201 to 212 acres, providing evidence of the continued consolidation of Tioga County farms.

The data paints a clear picture of the struggles faced by many farmers across the county. The number of dairy operations in Tioga County fell by 23% since 2012, compared to an 18% decline in the number of dairy farms statewide. These losses coincide with increases in production costs, including labor, feed, fuel, chemicals and fertilizer. Strikingly, 64% of county farms reported negative net income in 2017, highlighting the significant financial stress apparent throughout the agricultural sector.

The average age of primary producers in Tioga County dipped slightly to 58.3 years in 2017. The aging farming population continues to be an issue in the county, as farmers over the age of 65 now outnumber farmers under 35 nearly 6 to 1. This underscores the role of agricultural service providers in providing succession planning resources and promoting agricultural careers to the next generation.

On the positive side, there have been elements of growth. Tioga County has seen an increase in maple, vegetable, fruit and nut farms since 2012, and the total value of organic products sold has nearly doubled to almost \$3 million in 2017.

While there is still much to learn from the data, it is clear that the depressed agricultural economy has taken its toll on producers in Tioga County and across the state. However, the fact remains that agriculture is a strong driver of our local economy and we must continue to support our family farms during these difficult times.



# Turning maple syrup forests into bird-friendly habitat

By Alison Haigh  
April 18, 2019



*The Cornell Lab of Ornithology is partnering with the Cornell Maple Program to help New York forests that produce maple syrup meet their full potential as bird habitat, sweetening the deal for both maple producers and birds. Above, Aaron Wightman, operations manager at the Arnot Research Sugarbush, tours an area of Arnot Forest that has been managed to allow new tree growth. Photo by Jason Koski/Cornell University*

High in the branches of a maple tree sit the tattered remains of a muddy, grassy bird nest. I train my binoculars on the small lump, but it was built the previous year and is very much empty. Closer to eye level, it's harder to miss the metal spigot and tangle of blue tubing attached to the tree's trunk. This tree is one of the 6,000 tapped for Cornell University's signature maple syrup, and last year it also raised a family of birds.

Birds and maple syrup share the same critical ingredient: healthy northeastern forests. Every year, millions of birds breed, feed and fledge in the same forests that are tapped for syrup (called "sugar bushes"). As long as a sugar bush stays tapped, it will remain a forest and not be cleared for development.

Now the [Cornell Lab of Ornithology](#) is partnering with the [Cornell Maple Program](#) to help sugar bushes meet their full potential for bird habitat, sweetening the deal for birds and for the bottom line in the university's own sugar bush.

## From maple monocultures to bird-friendly forests

Maple-syrup producers exert considerable control over the habitat in a sugar bush. What is good for birds in a forest is also good for maple producers in the long run: the health and sustainability of the crop.

Aaron Wightman '97 oversees operations at the [Arnot Research Forest](#) in a Cornell University-owned forest south of Ithaca. After learning Audubon Vermont has worked with nearly 40 of that state's maple syrup producers on the Bird-Friendly Maple Project since 2014, he approached then-Cornell Lab of Ornithology conservation biologist Ron Rohrbaugh about managing a sugar bush

for birds.

Wightman was interested in helping the birds, but also in helping the forest he manages.

The understory of the oldest part of the Arnot sugar bush was thinned decades ago and deer have kept the shrub layer from regenerating, Wightman explains as we walk through the Cornell research forest on a delicately sunlit May morning. Here, slender maples tower over us like an arched cathedral ceiling. Tiny beech and hornbeam seedlings pop out of the leaf litter – but there is nothing but empty space between the canopy and forest floor.



*Plastic tubing runs throughout the Arnot Research Sugarbush, connecting tapped trees to a sugar shack in a forest on Cornell University land. Photo by Jason Koski/Cornell University*

Forest managers aim for an ideal diversity of tree species at a diversity of ages, with layers of branches and leaves at the top, middle and bottom. Without younger generations of trees growing up underneath the canopy layer, the entire forest community faces an abrupt decline when all those oldest-generation trees begin to die.

Birds suffer, too, from a lack of diversity in sugar-bush habitat. For example, without a conifer component among the maple trees, birds like the blue-headed vireo, blackburnian warbler and sharp-shinned hawk are missing valuable nesting habitat. Fruiting trees and shrubs in a sugar bush, like black cherry, also provide critical energy supplies for birds fueling up for migration.

Next to the monoculture in Arnot Forest stands a plot that is a perfect model for bird-friendly management. The bright blue tubing disappears and reappears among the thick understory, winding around a few snags with holes drilled out by woodpeckers. There are more than just maples here; we stop to admire a black-throated green warbler flitting around in a hemlock, and a scarlet tanager in an oak tree.

Conservation biologist Steve Hagenbuch, who heads up Audubon Vermont's Bird-Friendly Maple Project, says sugar bushes that contain at least 25 percent nonmaple trees support a greater diversity and abundance of birds than stands growing only maples. And he says syrup producers in the Audubon Vermont program are finding that managing a sugar bush for tree diversity is good for sugaring sustainability, too. A University of Vermont study found that sugar bushes with a bird-friendly ratio of tree diversity experienced insect outbreaks that were significantly shorter and less intense



than in maple monocultures.

“Is that a coincidence?” Hagenbuch asks rhetorically. “I don’t think so. I think that speaks to a healthy, functioning forest, thanks to its structure and composition.”

### Bringing back the forest for birds

The quaint, colonial scenes on maple syrup bottles are misleading. Maple syrup is big business.

By the barrel, syrup costs more than oil. Products like maple-derived alcohol, candies and even sports drinks have exploded in popularity. New York state alone taps more than 2 million trees, and its maple products were worth more than \$30 million last year.



Logging crews work to thin the forest canopy in order to allow more light, enabling new tree growth and allowing a diversity of species to take root. Photo by Jason Koski/Cornell University

But the boom in sugar bushes, as another form of farming monoculture, is compounding a tree diversity problem in the Northeast’s forests.

Throughout the 1800s, settlers cleared nearly 90% of all forests in the Northeast for farmland, only to suffer season after season of poor yields in their harvests. After the settlers abandoned their farmland, the forests began to grow back. But wave after wave of invasive species, forest pests and diseases stunted the growth of young trees, leaving many forests lacking in successive generations of native trees. The irony, noted in the [2016 State of the Birds Report](#), is this: “In the East, there is more forest today than there was 100 years ago, yet forest stands lack the diversity of young and old trees that makes for prime bird habitat.”

With habitat loss and degradation looming as the greatest threats to birds today, sugar bushes have the potential to offer a big conservation footprint for birds.

“Conservation of anything – birds, habitat, anything – requires an all-hands-on-deck approach,” Hagenbuch says. “We can’t rely on protected areas, or even the goodwill of people interested in wildlife. We need to integrate [bird conservation] into our businesses, create financial incentives and encourage people to think about the role that their land management has in conservation.”

Bird-friendly maple syrup is only one part of how the food production systems of modern society can help address the

massive loss of bird habitat. After all, the very same scarlet tanagers that spend summer in sugar bushes in New York, Vermont and Quebec fly to South America for the winter, where they may look for habitat among shade-grown coffee farms in Colombia.

Ultimately, Wightman hopes the sugar bush in Arnot Forest will be a model for bird-friendly maple production in New York, and for the international importance of sustainable food production.

“Any healthy forest has a healthy bird population,” he says. “That’s how we should grow all our food.”

*Alison Haigh is a senior majoring in environmental science major at Cornell University and a freelance writer based in Ithaca, New York.*

*This article originally appeared in the spring 2019 issue of [Living Bird magazine](#), produced by the Cornell Lab of Ornithology.*

*[This article also appeared in the Cornell Chronicle.](#)*



**CORNELL**  
**IMPACTS**  
**NEW YORK STATE**

## SBA Economic Injury Disaster Loans Available in New York Following Secretary of Agriculture Disaster Declaration

**ATLANTA** - The U.S. Small Business Administration announced today that Economic Injury Disaster Loans are available to small businesses, small agricultural cooperatives, small businesses engaged in aquaculture and private nonprofit organizations located in **New York** as a result of rain, flash flooding that began on **July 21, 2018**.

The loans are available in the following counties: Allegany, Broome, Cattaraugus, Chautauqua, Steuben and Tioga in **New York**.

“These counties are eligible because they are contiguous to one or more primary counties in **Pennsylvania**. The Small Business Administration recognizes that disasters do not usually stop at county or state lines. For that reason, counties adjacent to primary counties named in the declaration are included,” said Kem Fleming, director of SBA’s Field Operations Center East.

Under this declaration, the SBA’s Economic Injury Disaster Loan program is available to eligible farm-related and nonfarm-related entities that suffered financial losses as a direct result of this disaster. With the exception of aquaculture enterprises, SBA cannot provide disaster loans to agricultural producers, farmers and ranchers.

Applicants may apply online using the Electronic Loan Application (ELA) via SBA’s secure website at Disaster-Loan.sba.gov.

Disaster loan information and application forms may also be obtained by calling the SBA’s Customer Service Center at 800-659-2955 (800-877-8339 for the deaf and hard-of-hearing) or by sending an email to [disastercustomerservice@sba.gov](mailto:disastercustomerservice@sba.gov). Loan applications can be downloaded from [www.sba.gov](http://www.sba.gov). Completed applications should be mailed to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

## Stop Oak Wilt

Oak Wilt is yet another pest threatening the health of our forests in New York and beyond. The Oak Wilt fungus, *Bretziella fagacearum*, believed to be introduced from Central or South America, could have devastating effects on our forests.

Oak Wilt is classified as a vascular disease meaning that the fungus interrupts the transport of water and sugars with the result being wilting foliage, known as flagging. Flagging is often the first symptom that your oak tree might be infected. Beginning in May, generally at the top

of the canopy, individual leaves will turn brown from the tip of leaf inward. In red oaks, this disease spreads rapidly, killing trees in a year or less. White oaks, are more resilient to the disease but are not resistant and can further the spread if no action is taken.

Oak Wilt has two methods of spreading. When trees grow close together, their roots intermingle; this intermingling is known as root grafting. Root grafting usually is a beneficial process making trees more resistant to wind throw, and allowing trees to share resources. Oak trees infected with oak wilt not only share water and sugar through these root grafts, but the fungus as well.

Around springtime, the fungus begins forming fungal mats just under the bark of infected oaks. As the spores mature, the fungus produces a scent similar to that of stale beer. This smell attracts sap-feeding beetles and bark beetles, who collect the spores as they explore the infested tree. As these beetles travel from tree to tree, they deposit these fungal souvenirs onto non-infected trees. All the fungus needs is a wound and it can start an entirely new infection.

### How to stop the spread of oak wilt

Don’t prune in June! Although not quite as catchy, do not prune oak trees between May and September. During this window, the beetle vectors are active and can readily spread the fungus. Wait until winter to prune your trees. If you hire a contractor between May and September ask that the oaks not be pruned until winter.

Don’t transport firewood! The beetles and fungus can be present in cut logs. Transporting wood in and out of infected areas will proliferate the disease. Firewood harbors all sorts of environmental fugitives, emerald ash borer was spread this way which will result in the death of more than 900 million trees across NYS. For more information visit [dontmovefirewood.org](http://dontmovefirewood.org).

Detect and report! Are your oaks experiencing a fall color change in August, noticing some flagging on oak trees in your local park? Call someone. Your local Cornell Cooperative Extension, soil and water office, or regional DEC office are all equipped to report infestations to the regulating authority. DEC has regional offices in both Cortland (607-753-3095) and Kirkwood (607-775-2545).



Hire qualified tree care workers. There are many tree services around the state. Make sure you hire one with a certified arborist on staff. Certified arborists are required to attend educational work-

shops where they are kept up to date with tree care techniques and new invasive pests. To find an arborist in your area you can visit the [Trees are Good website](http://TreesareGood.org).





## Maintaining a strong agriculture community and ensuring a vibrant future for Tioga County's Rural Landscape

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

### Wild Mushroom Walks and Talks

Sunday, May 5, 2019, 1:00 PM - 3:00 PM- Learning how to identify trees, and their connections to edible mushrooms in a classroom setting.

Sunday, July 21, 2019, 1:00 PM - 3:00 PM The Art of Foraging for Fungi.

Sunday, October 20, 2019, 1:00 PM - 3:00 PM Mushroom hunting, identification and their uses.

Join Dominic Costa and Cornell Cooperative Extension of Schuyler County to dive into the Art of Mushroom hunting. Knowing the forest and the plants that inhabit those eco systems will allow you to search in the right location for each species of mushroom. Classes are Sundays from 1pm-3pm. \$25 registration fee per session or if you register for all 3 sessions you will get a free book Mushrooms of the Northeast. Contact: Call Roger Ort at 607-535-7161 for more details. To register please follow this link: [https://reg.cce.cornell.edu/wildmushroomwalksandtalks\\_244](https://reg.cce.cornell.edu/wildmushroomwalksandtalks_244)

### Propagation Workshop

May 4th and 5th from 10-3. Twisted Tree Farm 279 Washburn Road Spencer, NY 14883. Come for one or both days. You can expect every minute to be packed with information that will be conveyed right in the nursery, so you can see and feel what is happening. There is a lot to cover, this workshop will leave you with many practical ideas to work on. The cost is \$300 for both days, or \$160 for one day (scholarships and work trades are available- no one turned away for lack of funds). You can learn more about this workshop at <http://www.twisted-tree.net/abundant-propagation/spring-propagation-class>

### Tick Survey

[Tick study/survey app](#) for NE and upper mid-west: This project is undertaken on behalf of the Midwest Center of Excellence for Vector-Borne Diseases and the Northeast Center of Excellence for Vector-Borne Diseases. This study is designed to help us understand more about how people's practices and activities impact their exposure to ticks. If you live in a high-risk area, sharing your experience and perspective will help us learn about the risk factors for tick borne disease and design better methods that prevent tick bites and tick-borne disease.

### Funds Available to Help Farmers Address Climate

### Change Impacts

Governor Cuomo announced an additional \$5 million has been added to the Resilient Farming Program in an effort to combat the effects climate change has on agriculture. There is currently \$2.3 million available to help farmers reduce their environmental impact and recover from extreme weather conditions. Eligible projects include waste storage, water management and soil health. Learn more and apply by May 13.

### Harvesting Schuyler's Heritage- Fruit Production

April 30th at 5:30pm with Rick Reisinger and Lindsay Wickham at Wickhams Tango Oaks in Hector, NY. Learn about the history of fruit production in the Finger Lakes and enjoy fruit pie (available for purchase) from Mangus Farms. Speaker Series- Join free conversations with experts discussing Schuyler County's agriculture industries, past and present. Please contact Phil Cherry 607-535-7161 or email [pc526@cornell.edu](mailto:pc526@cornell.edu) for additional information.

### Master Food Preservers Workshop

Tuesday, May 21, 2019, 8:30 AM - 4:30 PM

Wednesday, May 22, 2019, 8:30 AM - 4:30 PM

Thursday, May 23, 2019, 8:30 AM - 4:30 PM

Become a Master Food Preserver!

A 3-day training for those who would like to go beyond the basics of home food preservation- either for your own use or to help others learn how to safely preserve food. This course is the first step toward becoming a Cornell Cooperative Extension Master Food Preserver. Limit to 21 participants. See <http://ccetompkins.org/events/2019/05/21/master-food-preserver-training> for more information.

### Managing Your Woods for Healthy and Valuable Timber

May 30th- Do you own a woodlot and wondered if you could manage it to produce quality timber long in to the future? What would your options be? Would your work be worth the effort? Would climate change mess it all up? Is it better to leave things alone, or get involved as an active steward of your woods? Brett Chedzoy, a regional forester with Cornell Cooperative Extension of Schuyler County, will speak to all of that and more at 7 P.M. on Thursday, May30, at the Danby Town Hall. Brett has a wealth of practical hands-on experience to draw on from thirty years of experience in forestry, including his long-time management of family tree farms in Argentina and NY. He knows how to integrate tree growing with other uses of the land as well, like "silvopasturing". There are many considerations to successfully achieve one's objectives. Come find out what works now and what has the best chance of succeeding going forward in light of current challenges to healthy and sustainable woodlands. This presentation is part of a series of seminars on rural land use, brought to you by the Danby Conservation Advisory Council. The presentation is free and open to the public. For more information, please contact Don Schaufler at: [dps4@cornell.edu](mailto:dps4@cornell.edu)



## 2019 Cornell Maple Camp

July 23- 26, 2019. Cornell University Arnot Teaching and Research Forest. Cornell Cooperative Extension of Schuyler County. Cornell Maple Camp provides intensive, hands-on training for beginner and less experienced maple producers. The 4-day curriculum begins with sugarbush assessment, then builds sequentially through all phases of maple syrup production from sap collection to boiling, bottling and sales. Participants will gain the skills necessary for the safe, efficient and profitable production of maple products. Classroom sessions will be held in the Schuyler County Cornell Cooperative Extension office in Montour Falls. Field sessions will take place in the Arnot Teaching and Research Forest in Van Etten. The cost for the training and meals is \$250 per person. A group discount is available at the rate of \$250 for the first registrant and \$200 for each additional registrant. Additional information and the online registration are available at the links below. Contact Aaron Wightman at [arw6@cornell.edu](mailto:arw6@cornell.edu) with questions or comments.

Registration here: [https://cornell.qualtrics.com/jfe/form/SV\\_e5y3aB9tQETjKrH](https://cornell.qualtrics.com/jfe/form/SV_e5y3aB9tQETjKrH)

Agenda here: <https://blogs.cornell.edu/cornellmaple/files/2015/03/2019-Cornell-Maple-Camp-Agenda-2-27cx1uy.docx>

## Save the Date! Taste of Chemung 2019

On Thursday September 26, 2019 from 6 to 8 pm, Cornell Cooperative Extension of Chemung County (CCE Chemung) will be having their annual Taste of Chemung. This event will take place at the Community Arts of Elmira (413 Lake St, Elmira, NY 14901). Ticket cost prior to Thursday September 26, 2019 will be \$35 per person or \$30 if 4 or more tickets are purchased together. All tickets purchased the day of the event will be \$40 per person. The tickets will go on sale this summer. Please contact Shona Ort at 607-734-4453 ext 227 or [sbo6@cornell.edu](mailto:sbo6@cornell.edu) to receive the announcement of when tickets go on sale.

## Low cost funds available in the Southern Tier:

Working Capital Loans - \$5,000 to \$100,000. Term of 5 years. Fixed at 75% of prime rate at time of approval. Current rate 3.94%. Requires 10% cash equity, and collateral values at 120% of loan amount ( \$50,000 loan requires securable assets ( equipment, real estate, cash) of \$60,000). Eligibility – For profit businesses located in Steuben, Schuyler, Chemung, Tioga, Tompkins, Broome, Chenango, Delaware Counties. Contact [gminer@redec.us](mailto:gminer@redec.us)

Agricultural Loans - \$ 50,000 to \$250,000. Term 5-15 years. Fixed at 75% of Prime rate at time of approval (Current rate 3.94%). Requires 10% cash equity, and collateral values at 120% of loan amount ( \$50,000 loan requires securable assets ( equipment, real estate, cash) of \$60,000).

Eligibility – Agricultural businesses – growers, processors, farm markets, wholesale distributors, dairy, grapes, hops, hemp, meat, cheese, etc. located in Steuben, Schuyler, Chemung, Tioga, Tompkins, Broome, Chenango, Delaware Counties. Contact [gminer@redec.us](mailto:gminer@redec.us)

## Women in Agriculture

2nd & 4th Wednesday of each Month at Noon EST. Cost is FREE. All are invited to participate. 2018 Webinars Series To Register Visit: <http://extension.umd.edu/womeninag/webinars>

**NOFA Summer Conference 2018-** <http://nofasummerconference.org/>

**Respirator Fit Testing-** By the DEC Region 8, Finger Lakes- For Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne and Yates. Held at CCE Ontario County, 480 North Main Street, Canandaigua, NY. To make appointments please call 607-547-6023. For more information please visit: [https://flgp.cce.cornell.edu/events.php?date=05\\_2018](https://flgp.cce.cornell.edu/events.php?date=05_2018)

## WILD EDIBLE PLANTS WORKSHOP

Wilderness Way School Owego, NY

- ~ Meet and greet dozens of wild plants
- ~ Identify and explore species and habitats
- ~ Harvest and prepare wild foods
- ~ Practice stewardship & sustainability
- ~ Feast on fresh, fragrant, flavorful plants

Sunday June 2, 2019...9:00am–5:00pm  
Class Fee: \$75.00

Please print and mail in registration form found on our website: [www.wildernesswayschool.com](http://www.wildernesswayschool.com)

Call for help or further information: 607.972.6512

## Growing a Woodland Farm and Homestead June 14-16 -

This 3 day class takes place at 3 amazing locations, Well-spring Farm (with Steve Gabriel), Edible Acres (with Sean Dembrosky), and Twisted Tree Farm with me. For more information or to register visit <http://events.wellspringforestfarm.com/>



## Helping You Put Knowledge To Work

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