

# THE PIPELINE

## Mid-Winter Maple Classic 2022 is coming!

JANUARY 7-8, 2022 - NYS FAIRGROUNDS, SYRACUSE, NY

Maple Producers... it has been a long two years of the pandemic, and we all want a chance to get together in person with our fellow sugarmakers! It's a good thing we will be back together for the 2022 Mid-Winter Maple Classic!

The NYS Maple Producers' Association is pleased to be sponsoring an IN-PERSON maple conference on January 7-8, 2022, with the main event on Saturday, January 8, 2022, at the NYS Fairgrounds.

We are working with the Cornell maple program folks: Aaron Wightman, Adam Wild, and Peter Smallidge, to put together a schedule of workshops on current maple research and techniques. There will be a slate of speakers for Saturday's workshops, already including Abby van den Berg from the University of Vermont; Jesse Randall from Michigan State; Aaron Wightman, Adam Wild, and Peter Smallidge from Cornell University; Brian Bainborough from Ontario Maple Producers & the maple grading school; Baystate Organics; Eileen Downs from Merle Maple; Eric Randall from Randall Family Maple and many more. Workshops will cover topics in new research on tubing, spouts, and jug types, along with best management practices for maple production and demonstrations in value-added product development. As in previous years, there is plenty of room in the Horticulture Building for vendors to display their equipment. We expect to see many of the major equipment dealers represented.

NYS Maple Association members can attend for \$25 per person on Saturday, which includes a morning coffee/donut bar and a full lunch. Non-members can attend for \$35 per person but can use their attendance receipt to purchase an association membership for \$10 off at the conference. Kids 12 and under are half price. Registrations received after December 3, 2021, and walk-ins at the door will be \$45. NO EXCEPTIONS!



An informal social hour will be held Friday evening in the Horticulture Building after vendors set up. We will ask for a donation to cover snacks and drinks for the evening.

Ensuring we hold a safe in-person conference is a top priority to the NYS Maple Producers' Association. The Onondaga County Health Department will provide safety guidelines that we will follow.

The NYS Fair was held safely this year under their direction, so we are confident we can ensure your safety.

We ask that you continue to check the website for event details and updates on speakers and trade show arrangements as more information is finalized: <https://sugarmakers.nysmaple.com/mid-winter-maple-classic/> or <https://www.nysmaple.com/>.



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## A Message From Our President

Hello Fellow Sugarmakers,

I am Doug Thompson, a sixth generation sugarmaker from the Adirondack foothills in St. Lawrence County and the new NYSPMA president.

First, I would like to thank Tony Van Glad for his service and dedication to our organization. In the late summer, Tony realized that operating his own thriving business was making it near impossible to dedicate the time and energy needed to oversee our organization. His resignation was reluctantly accepted by the Board of Directors. We wish Tony the best as he moves forward!

In mid-September, I was elected to complete the current term of the office of president. There has been a lot happening at the NYSPMA since then!

After many unknowns, a successful and profitable 18-day Maple Center exhibit was completed at the NY State Fair. Thank you to the coordinator of this event Dave Schiek and the Maple Center committee, who worked tirelessly through a myriad of ever-changing rules and expectations to make it a successful event.

During our October 12th Board of Directors meeting, it was decided that conditions were right to present the Mid-Winter Maple Classic on January 7th and 8th, 2022, at the NYS Fairgrounds in Syracuse. We are planning a somewhat scaled-down event and will have to comply with state and local health protocols. Please see the related article elsewhere in this issue of *The Pipeline*. Be sure to fill out your registration form and return it. I'll see you there!

Plans and promotions for 2022 Maple Weekends (March 19, 20, 26, and 27) are underway at the State level. If your sugaring operation is planning to participate, sign up soon to get maximum publicity!

I'm sure many of you are already making plans and preparing for the upcoming 2022 maple season. I know here at our operation, maintenance and improvements are never-ending. Please enjoy your time as sugarmakers regardless of your scale and do it safely!

Doug Thompson  
President NYSPMA

### HELP US KEEP YOU INFORMED!

We send frequent emails to the entire membership to let you know of things happening in the maple world.

**IF YOU DID NOT GET THEM, DO THE FOLLOWING:**

Send an email to office@nysmaple.com. This will tell us your current email address. It's possible that our records may need to be updated! Check your spam folder for emails from: office@nysmaple.com and info@nysmaple.com. We use these two email addresses to send you the latest news. If your spam filter has them blocked, you will not receive our communications.

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**NYS Mid-Winter Maple Classic at the New York State Fairgrounds  
is January 7-8, 2022**



# Mid-Winter Maple Classic

**NYS FAIRGROUNDS • SYRACUSE, NY**

Join the NYSMPA for the biggest maple show in the industry taking place in Syracuse, NY! The Maple Workshops are arranged and presented by the Cornell Maple Program educators. We look forward to coming together as a maple community for the in-person event to learn and share new maple tips and techniques so we can produce the very best Pure Maple Syrup! *Support your NYS Maple Producers' Association, sponsors of this event.*

## **WORKSHOP PRESENTERS:**

Jaime Schuler, Ph.D., Assoc. Prof. of Silviculture, UWV  
Abby van den Berg, Ph.D., Research Assoc. Prof., Proctor Maple Research Center  
Joel Boutin, Quebec Maple Cooperative  
Jesse Randall, Ph.D., U.P. Forestry Innovation Center Director, MSU  
Adam Wild, Maple Specialist, Cornell Maple Program  
Aaron Wightman, Maple Specialist, Cornell Maple Program  
Brian Bainborough, MapleRidge Farms & Ontario Maple Producers  
Jason Lilley, Sustainable Agriculture Professional, UMaine  
Scott Weikert, Maple Specialist, Penn State Cooperative Extension  
Peter Smallidge, Ph.D., NYS Extension Forester, Cornell  
Lauren Sandstrom, Certification Administrator, Baystate Organic  
Eileen Downs, Merle Maple LLC  
Catherine Belisle, Food Scientist, Cornell Maple Program  
Eric Randall, Emeritus Prof., Randall's Maple LLC  
Lynnette Wright, Public Affairs Specialist, NYS USDA  
Michael Kenny, Sweeter Creations Sugarhouse  
Scott St. Mary, Cedar Brook Farms Maple Confections  
Steve Gabriel, Agroforestry Specialist, Cornell Small Farms Program  
Zach Beorman, Forest Program Associate, Audubon NY

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Sunrise Metal Shop  
The RO Bucket  
NY Ag in the Classroom  
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**...AND MORE SIGNING UP EVERY DAY!**

## **REGISTER NOW AT**

**<https://sugarmakers.nysmaple.com/mid-winter-maple-classic>**





## Assessing Gypsy Moth Threat in Western NY

By Aaron Wightman, Cornell Maple Program



Since it arrived in the United States in the late 1800s, the European

Gypsy Moth has killed millions of trees in the Northeast. The caterpillars of this small white moth kill hardwoods by defoliating large swaths of forests during outbreaks when their populations swell to thousands of insects per acre.

Many sugarmakers in NY this summer reported seeing increasing numbers of European Gypsy Moths (EGM) in their woodlots. Although maples are not their preferred food, it is still worthwhile to assess the threat EGM may pose to your sugarbush.

EGM is native to European forests where it has co-evolved over millennia with many natural predators and competing insects which have helped keep its population in check. When introduced to Massachusetts in 1896, the absence of these predators and competitors allowed gypsy moth populations to expand to outbreak proportions. Over the last century, EGM has defoliated millions of acres of forest, resulting in billions of dollars in economic losses. During intense outbreaks, the sound of caterpillars chewing and defecating resembles the patter of a gentle rain or a waterfall in the distance.

In addition to direct economic losses, this “fecal rain” reduces the enjoyment of time spent in the woods; some people experience rashes and even respiratory distress after spending time in infested areas.

Gypsy moths prefer to eat the leaves of oak, aspen, birch, willow, and basswoods. Oaks have been particularly hard hit in past outbreaks in NY. However, they will also graze on maple, hemlock, beech, and other species common to our sugarbushes. One of the trees EGM absolutely will not eat is ash. The loss of ash as a major constituent of our forests due to emerald ash borer may have implications for gypsy moth activity.

Gypsy moths are now firmly established in New York forests. Several efforts were made to eradicate them or slow their spread in the 20th century, but these efforts were largely unsuccessful at the time.

Up through the 1980s, gypsy moths continued to inflict heavy losses on NY woodlands in periodic outbreaks. One initiative involved the release of a Japanese fungus called *Entomophaga maimaiga* in 1910 and again in 1985. These releases were deemed unsuccessful. However, in the 1990s, the fungus finally took root and began proliferating in wild gypsy moth populations. Since that time, the fungus and a combination of native predators have somewhat curtailed the frequency and intensity of gypsy moth outbreaks.

In addition to this natural control, gypsy moths can be directly treated and managed by applying *Bacillus thuringiensis*, commonly referred to as Bt. These rod-shaped bacteria contain toxic proteins that activate in the gut of insects. The toxin is released when the bacteria is consumed by gypsy moth larvae, resulting in the caterpillar's death.

Bt is a popular treatment for EGM and other insect pests due to its effectiveness and low toxicity to humans. It is currently available in many formulations and can be applied with aircraft to treat large areas.

Although large-scale outbreaks of EGM are now less common, they do still occur. This summer, sugarmakers in western and central New York reported increased EGM activity in their sugarbushes. Whether this is cause for concern depends on several factors, including woodlot size, tree species composition, and the density of the gypsy moth population.

Unfortunately, there is no threat assessment tool specifically tailored to sugarbushes. However, the NY Department of Environmental Conservation has created a survey tool to estimate the intensity of a gypsy moth outbreak in a generic hardwood forest,



along with recommended decision-making thresholds for when treatment is needed to prevent a damaging level of defoliation. The survey methodology is straightforward and involves counting egg masses in sample plots. Following instructions provided on the NYDEC website, a landowner can easily complete the sampling protocol and estimate EGM numbers with a tally sheet and a good pair of binoculars. Once the sample is completed, the DEC protocol sets the following management thresholds:

- **250 EGG MASSES PER ACRE:**  
**TREAT TO PREVENT NOTICEABLE CATERPILLARS**
- **500 EGG MASSES PER ACRE:**  
**TREAT TO PREVENT NOTICEABLE DEFOLIATION**
- **1000 EGG MASSES PER ACRE:**  
**TREAT TO PREVENT LIKELY TREE MORTALITY**

Although this protocol is not specifically designed for sugarbush management, it is the best tool currently available for making treatment decisions and may help measure the threat to your sugarbush.

Generally speaking, large sugarbushes with a small component of oak or aspen are probably not susceptible to damage. According to US Forest Service Research Entomologist Andrew Liebhold, the vulnerability of a woodlot is primarily determined by the proportion of the forest that is the EGM's preferred diet of oaks, aspens, and other primary host species.

Sugar maple is a secondary host. Young caterpillars can feed on it, but older caterpillars do not fair well with a heavy component of maple in their diet. According to Liebhold, "It is quite rare to see defoliation in stands with less than 20% of their basal area in preferred hosts. Having said that, if there is a matrix of pure sugar maple with nearby stands with more hosts (oaks,

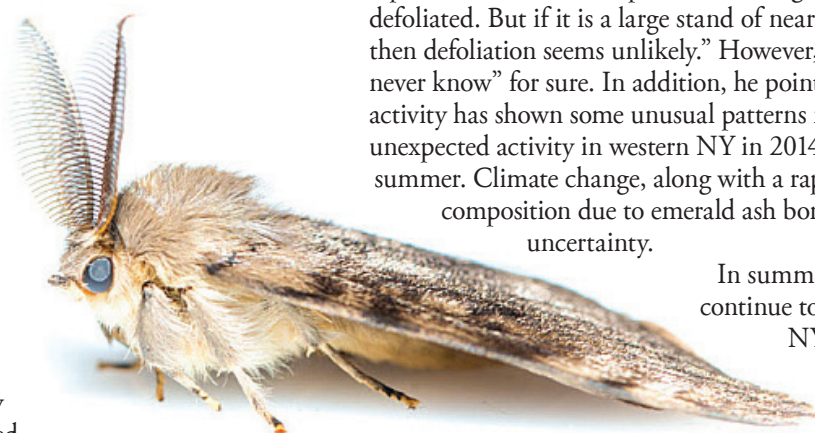


aspens, birch), then it is possible that sugar maple can get defoliated. But if it is a large stand of nearly pure sugar maple, then defoliation seems unlikely." However, he adds that "you never know" for sure. In addition, he points out that gypsy moth activity has shown some unusual patterns recently, including unexpected activity in western NY in 2014-2015 and again this summer. Climate change, along with a rapidly changing forest composition due to emerald ash borer, amplifies this uncertainty.

In summary, while gypsy moths continue to pose a major threat to NY forests, sugarbushes are typically less vulnerable. However, if your sugarbush has a

large component of vulnerable species such as oak and aspen, your woodlot may be at risk.

The assessment tool available online at the NYDEC website can help you assess this risk and formulate a treatment strategy, such as an aerial application of Bt by a licensed pesticide applicator. For more information, contact your local DEC office or search their website at [www.dec.ny.gov](http://www.dec.ny.gov).



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## Gaining a Better Understanding of Outbreak and Defoliation Potential for *Lymantria Dispar Dispar*

(FORMERLY KNOWN AS GYPSY MOTH) IN A SUGARBUSH

Laura Bailey, Cornell Cooperative Extension of Yates County Natural Resources Educator and Northwest Regional Director of the Master Forest Owner (MFO) Program

**M**ost regions of New York State experienced varying degrees of tree defoliation from *Lymantria dispar dispar* (LDD), formerly known as gypsy moth, in 2021.

Reports of increased, but still comparatively low, LDD activity began in 2019, and during 2020 and 2021, defoliation events increased and spread across the state. Nearing the end of summer 2021, many regions reported indication of natural viral and fungal control mechanisms spreading in caterpillar populations, hopefully reducing egg laying potential and decreased fitness and survival of the 2022 LDD hatch. Although signs of natural control mechanisms are encouraging for the return of undetectable LDD populations, implementing monitoring and management practices, and taking into consideration some other recommendations over the winter and in early spring of 2022, may still be beneficial for a sugarbush.

*Lymantria dispar dispar* (LDD) is known as an outbreak pest, as populations can quickly increase every 5 to 10 or more years (possibly due to weather patterns) after an extended period of low, nearly undetectable levels. Multiple factors affect the size of the LDD population each year, such as available food sources, parasites, predators, and disease. At low population densities, small mammal predators are the primary source of mortality, but they do not actually serve as a means of population control, especially during an outbreak. At higher population densities or during an outbreak, disease (a fungus and a virus) tends to be the greatest source of LDD mortality. Both the fungus and virus require moisture, so control of LDD populations by these diseases is more likely during wet springs.

The most commonly used microbial/biological insecticide used for LDD management is *Bacillus thuringiensis* (kurstaki), commonly known as Bt or Btk, which is naturally occurring on plants and in soil. It is harmless to people, animals and plants, but does affect other young moth and butterfly larvae. Btk is most effective when consumed by young caterpillars. In certain cases, such as in a sugarbush, aerial spraying of Btk may be economically feasible since severe defoliation can reduce maple syrup production. Btk is most effective when applied between May and early June, when LDD are still in the larval stage and are small ( $\frac{1}{2}$  to  $\frac{3}{4}$  inch).

Two spray applications may be required for effective control. Application of Btk after mid-June, when caterpillars are larger, is not effective.

Fortunately, healthy deciduous trees will generally regrow leaves after defoliation from LDD caterpillars. And can usually withstand 2-3 years of successive defoliation.

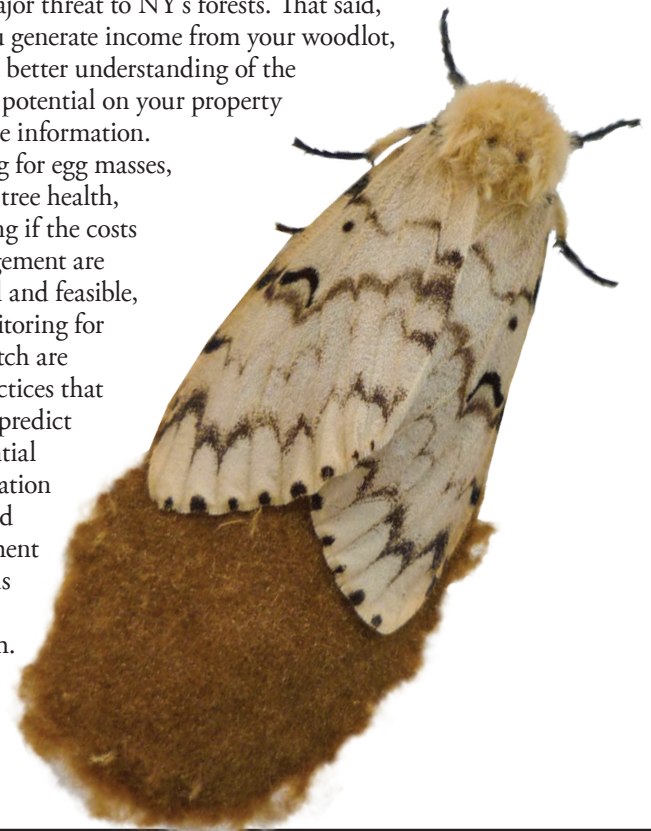
During outbreaks, when populations are high and food becomes scarce, gypsy moth caterpillars will feed on almost any vegetation, including maples. In many cases, the actual cause of death in trees attacked by

gypsy moths is not the defoliation

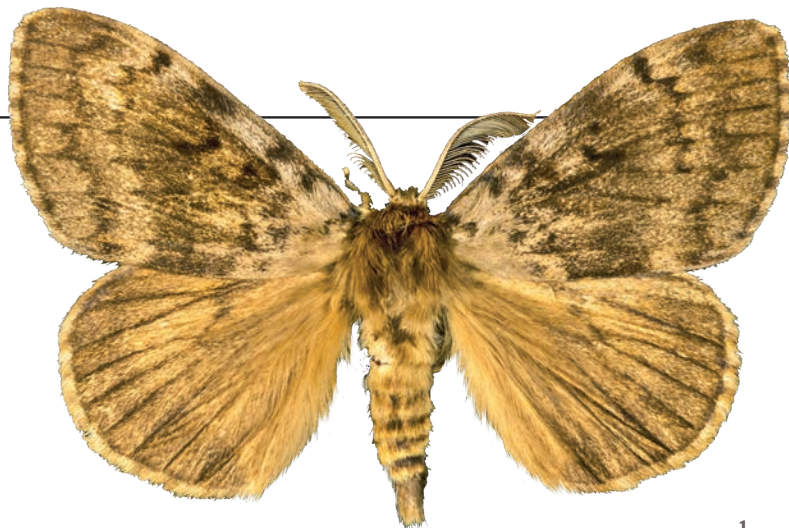
itself but instead a secondary organism

that invades the weakened tree, such as a fungus or borer. Even though gypsy moths can cause significant stress to a tree or forest during an outbreak, overall, they do not pose a major threat to NY's forests. That said, when you generate income from your woodlot, gaining a better understanding of the outbreak potential on your property is valuable information.

Surveying for egg masses, assessing tree health, calculating if the costs of management are beneficial and feasible, and monitoring for larvae hatch are some practices that can help predict the potential for defoliation events and management thresholds for a sugarbush.







1cm

Survey for egg masses using the “*Field Protocol for Sampling Gypsy Moth Egg Masses*” from the New York State Department of Environmental Conservation (NYSDEC).

This survey was not designed specifically for a sugarbush but using the sampling protocol can help determine the likelihood of LDD defoliation for the next growing season.

The survey should be conducted when egg masses are present, September through April. However, if considering aerial spraying of Btk, the survey should be conducted as soon as possible so that you have time over the winter to secure a company that performs this service. Calculations from the survey inform the below management thresholds, which can assist in decision-making about aerial spraying of Btk.

- 250 egg masses per acre - treat to prevent Noticeable Caterpillars
- 500 egg masses per acre - treat to prevent Noticeable Defoliation
- 1000 egg masses per acre - treat to prevent Likely Tree Mortality

Assess tree health this fall and winter and if any maple trees appear less vigorous or stressed from the LDD defoliation events of 2020 and/or 2021, if economically feasible, consider not tapping the stressed trees this season. After heavy defoliation episodes have subsided in your sugarbush, you can resume tapping the recovered trees.

Monitor weekly for egg hatch beginning in mid-late March. Wrap a piece of burlap around the trunk of a few trees in an easily accessible area of your woodlot. Tie a piece of string around the center of it and fold it over so you have a 2-ply layer of burlap. As the larvae move up and down the tree, some will get caught between the layers of burlap. When first hatched, LDD larvae are very tiny, hairy, and grayish to black in color, having not yet developed the identifying pairs of red and blue dots on their back. It will be important to communicate to a Btk aerial spraying company once eggs have hatched in your woodlot, as there is a very narrow window of time to spray. Only small, young caterpillars are susceptible to Btk.

Although these practices will not have a large impact on population control on a regional or statewide level, they may prove helpful in assessing outbreak potential in a sugarbush and making financial decisions about managing LDD populations with aerial spraying of Btk. The “*Field Protocol for Sampling*

*Gypsy Moth Egg Masses*,” from NYSDEC, can be downloaded online at [www.dec.ny.gov/animals/83118.html](http://www.dec.ny.gov/animals/83118.html) or by requesting an electronic or hard copy from your local DEC forester. Contact your local DEC forester or NYSDEC Forest Health at 518-402-9425 or [foresthealth@dec.ny.gov](mailto:foresthealth@dec.ny.gov) if you have questions about LDD or the survey protocol. Completed surveys can also be shared with NYSDEC Forest Health, contributing to a greater understanding of LDD population levels throughout the state.

## YSI Bio-Analyzer Available to Test Your Syrup

Through a grant from the Genesee Valley Regional Market Authority, the Western New York Maple Producers were able to purchase a YSI Bio-Analyzer that is housed at Merle Maple. This Bio-Analyzer can test for the percent of Glucose (or invert level) in Maple Syrup, as well as the percent of Ethanol in Bourbon Syrup.

A small sample, about 1 ounce (5-10ml), is all that is needed for either test.

A small fee is charged to cover consumables used with the machine, i.e. membranes, standards and buffers.

Glucose tests are \$20.00 each and the Ethanol tests are \$30.00.

If you are interested in having your syrup tested, contact Eileen Downs at Merle Maple – 585-535-7136.



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## Container Shortages and Price Increases, What's the Solution for Producers?

By Michael Spicer

The expertise of maple producers in common areas such as forestry, tapping, syrup grading, and sanitation have been keys to success for decades. However, new industry challenges presented by the recent Covid-19 pandemic are forcing producers to change their ways, so they can continue to build on their success. Producers are now required to become well versed in supply chain management, specifically in packaging. The industries present reliance on local equipment dealers as its exclusive source for glass, metal, and plastic containers is no longer the feasible packing solution for the foreseeable future. Resulting from labor shortages, extreme weather, and other external factors presented by the recent Covid-19 pandemic, maple syrup container shortages and increased prices are found in all three common packaging materials, glass, metal, and plastic.

Leading plastic jug manufacturers Sugarhill (a Plastic Industries company) and Ampak have announced increased manufacturing lead times to 40 weeks and 10 weeks, respectively. One equipment dealer in northern NYS fears the accuracy of these lead times and whether or not they will be able to supply producers with plastic containers for the 2022 sugaring season. In a desperate effort to supply producers with jugs, the same dealer ordered substantial quantities from both manufacturers hoping to have at least some delivered by 2022. Per one of four updates since August 2020 made by Sugarhill, lead times have quadrupled for screen-printed jugs due to both staffing issues and increased demand. The company announced they are actively increasing production capacity to decrease lead times and have a more sufficient supply of blank jugs. Unfortunately, the manufacturer lead time is not the only challenge producers will incur. Once producers receive the shipment of containers, whenever that may be, they will be faced with a challenging pricing decision - to raise prices or realize lower profit margins.

Three of the four recent updates from Sugarhill announced a price increase realized by the manufacturer for all of their input costs including resin, labor, wood pallets, and shipping. According to the manufacturer's update on June 11th, 2021, the manufacturer has been forced to relay price increases onto maple producers. For example, the world Resin index has seen a significant spike in recent months. With the Resin index affecting all manufacturers sourcing resin inputs, maple producers will

most likely experience a price increase from all plastic container manufacturers. This will be felt by manufacturers from other industries as well.

To compound Covid-19 challenges, domestic plastic manufacturer, Resin Supply, has recently experienced heightened volatility due to extreme weather in the Gulf of Mexico. Sugarhill announced the manufacturer is aggressively diversifying its supply chain to maintain lead times and mitigate the risk of future input volatilities. A common practice in supply chain management to mitigate risks

and achieve competitive pricing is to diversify sourcing. One might assume maple producers should follow suit and diversify their own sources; however, with negative impacts affecting all plastic jug manufacturers, what potential solutions are maple producers left with to diversify packaging?

Glass containers with a greater variety of bottle shapes and sizes presents as a viable solution. But in reality, the highly competitive market for glass containers amongst the entire food and beverage industry makes glass containers arguably less viable. One equipment dealer stated, "The maple industry is simply small peanuts [a small percentage comparatively] to the rest of the food and beverage industry such as alcohol." To put in perspective how highly competitive sourcing glass containers is, according to a Spectrum News article written on November 20<sup>th</sup>, 2020, a top-ranking Upstate New York brewery - F. X. Matt Brewing Co./Saranac - was forced to bottle beer in green glass due to the glass container shortage. Packaging syrup

in green glass would be unimaginable to many producers, but the persistence of packaging challenges may require producers to seek unconventional solutions.

The limited negotiating power for glass containers as well as the shortage and price increases for plastic containers, forces many producers into fearfully waiting for a shipment of containers before the 2022 season arrives. Meanwhile, other producers are not comfortable with the risk and have begun brainstorming new creative packaging options such as large plastic pouches. With the persistence of such challenges and uncertainties, will producers be forced to pump syrup directly out of the barrel onto their customers' pancakes come the 2022 sugaring season? We shall see!

Reference:

VIVACQUA, BRAD (2020, November 20). Saranac Uses Green Bottles Due to Glass Shortage. Spectrum News. <https://spectrumlocalnews.com/nys/central-ny/news/2020/11/20/saranac-uses-green-bottles-due-to-glass-shortage>.





## The Newly Rebuilt Arnot Maple Research & Teaching Laboratory



Aaron Wightman, Co-director, Cornell Maple Program, Tony Van Glad, NY Maple Producers Association Board President, Richard Ball, Commissioner of the NY Department of Agriculture and Markets, Ben Houlton, Ronald P. Lynch Dean, Cornell College of Agriculture and Life Sciences, Helen Thomas, NY Maple Producers Association Executive Director, Kevin King, Deputy Commissioner, NY Department of Agriculture and Markets, Adam Wild, Henry Uihlien II and Mildred A. Uihlein Director of the Uihlein Maple Research Forest.

**T**he wait is over! The ribbon cutting ceremony, held by Cornell on July 29, 2021, for the newly renovated Arnot Maple Center was a sweet success! This upgrade opens the door to new research capabilities, more opportunities, and to add to the sweetness, more maple products for the maple community.

Before joining Cornell in the ribbon cutting ceremony, The NYSMPA's Board had the opportunity to be one of the first to utilize the space located at The Arnot Research Forest. It was exciting for the board to see the massive facility and brand-new equipment integral for current research that will improve maple production as we know it.

Here's what you need to know about the new building. There is now an evaporator room large enough to fit two side by side

identical evaporators, an R/O room, a mechanical room, a research kitchen, and an office space. It even has a work area which will be used as a classroom and conference room. How great is that?

And all buildings that are used to store

equipment have been improved as well.

We can't wait to see what this renovation will do for the maple community. The Arnot Forest is open to the public year-round. The new research facility is available by appointment only.



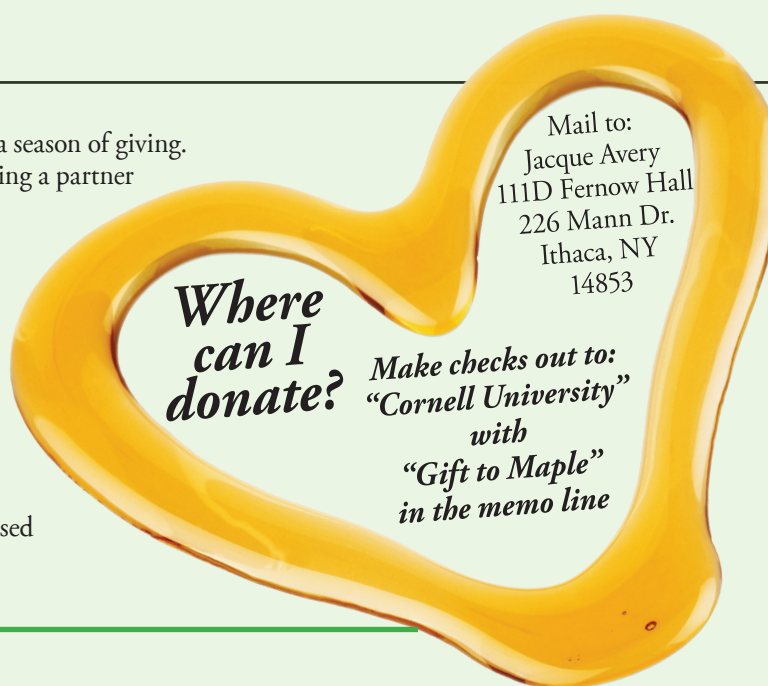


## New York Maple: Tap Into Kindness

The holiday season is steadily approaching, and with that, a season of giving. If donating to a cause has crossed your mind, consider being a partner by donating to the Cornell Maple Program.

**Why give to Maple?** This program is self-funded by maple syrup sales, research grants, and donations. With every gift, you touch students, the Community and help keep the tradition of Pure Maple Syrup alive.

**What does this program do?** The Cornell Maple Program makes strides towards developing methods for propagating and planting “super sweet” sugar maples, creating efficient ways to increase the health and sustainability of a maple forest, developing syrup from beech trees, maple value-added product development, and developing markets for recycling used maple plastic tubing.



## Maple Takes to the Internet

Maple isn't only tasty in your mouth; it's now sweetening up the internet, too! Now on Pinterest, Facebook, Instagram and YouTube, you'll have all the joys of maple right at your fingertips. Don't miss out on all things Pure Maple Syrup! Follow any of these accounts today to stay informed about the latest news, recipes, and events.



**YOUTUBE:** [WWW.YOUTUBE.COM/CHANNEL/UCJN515HIXFWXPKHTOL\\_GILW/FEATURED](http://WWW.YOUTUBE.COM/CHANNEL/UCJN515HIXFWXPKHTOL_GILW/FEATURED)

The NYS Maple YouTube channel has exclusive videos and recipes available for your viewing pleasure. Not only that, there are elementary educational videos for kids to take the first step into learning about the magic that is in maple syrup production.



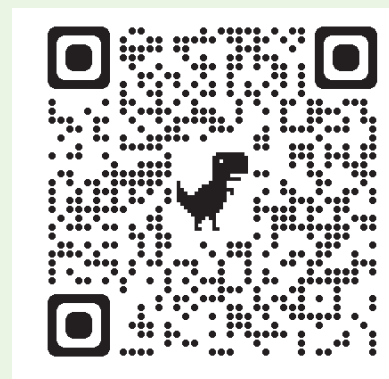
**PINTEREST:** [WWW.PINTEREST.COM/NYSMAPLE/](http://WWW.PINTEREST.COM/NYSMAPLE/) Can't find that show-stopping recipe for entertaining? No problem! NYS Maple's Pinterest board has got you covered with gourmet maple recipes from local farms to New York State Fair winners.



**INSTAGRAM:** [WWW.INSTAGRAM.COM/NYSMAPLE/](http://WWW.INSTAGRAM.COM/NYSMAPLE/) Looking for inspiration? Head on over to the NYS Maple Instagram page to look at tasty treats or gorgeous fall foliage for creative projects!



**FACEBOOK:** [WWW.FACEBOOK.COM/NYSMAPLE](http://WWW.FACEBOOK.COM/NYSMAPLE) And don't forget about the NYS Maple Facebook page, here to bring you the latest Maple news. Check-in here to see events the whole family can enjoy!



Scan here to connect with  
Maple on YouTube!

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## Meet the Sweet New Team: The Arnot Forest Team

These five researchers, along with the newly renovated Arnot Maple Center, are the new driving force behind the new discoveries of maple production as we know it. They are working on developing groundbreaking research that will benefit the production of pure maple syrup and products alike and ensure a robust maple future ahead! This team is enthusiastic about all things maple and is excited to bring their skills to the Arnot Forest. But they aren't just Maple Producers. Read below to find out just how fun and unique the Arnot team is!



### DR. PETER SMALLIDGE

NYS Extension Forester  
Director Arnot Teaching and Research Forest  
Peter's overall professional goal is to integrate extension and research in support of productive and healthy forest ecosystems in New York and the Northeast.

Something fun about me is that I enjoy wood-working as a hobby. I'm particularly focused on carving wooden spoons and making Windsor chairs. I enjoy experimenting with different types of wood. My latest new wood for spoons is sassafras. I want to try using beech for chair legs. Our favorite fall activities are less about what we're doing and more about spending time together. Examples include smoking brisket, antique shopping, visiting historic parks and bourbon tasting. As for my favorite part about maple, what's not to love? I think the variety of products is fantastic, but the one thing I love most is being in the sugar-bush in winter to experience the lengthening days and sunshine reflecting from the snow.



### AARON WIGHTMAN

Co Director Cornell Maple Program  
Arnot Forest Maple Program Manager  
Aaron grew up making syrup in Western NY, where his family operated a small-scale enterprise with several hundred taps on buckets and tubing. After earning degrees in biology and forestry, Aaron worked as a field biologist for the US Forest Service.

A fun fact about myself is that I am an avid amateur multi-instrumentalist musician. In my spare time I enjoy writing and recording music in my home studio under the band name "Reverb Osmosis". One of my favorite family fall activities is when I have a chance to visit my 2 adult children. We enjoy apple picking, pumpkin patches, and other agri-tourism activities. New York has many wonderful farm destinations! Out of all the things I love about Maple, and there are a lot, it's the people. Maple is steeped in tradition and serves as a cultural anchor in a time when so much seems uncertain. Going forward, I think this is our greatest strength. I don't know of many other industries with such a strong sense of community and shared purpose. It's a wonderful group to work with and be a part of.



### BRETT CHEDZOJ

Senior Resource Educator in Agriculture and Natural Resources, Arnot Forest Manager  
Brett works regionally on natural resources education and is the Arnot Teaching and Research Forest Manager. Brett's interest in maple started as a student at Cornell in the 1980s when he took Dr. John Kelley's "intro to maple syrup" course.

Beyond the daily forestry duties, I enjoy grazing our Aberdeen Angus cattle in Watkins Glen. Date night is heading to the pasture with a good craft beer to watch the cow's graze. My favorite fall activities are at a slower pace (fewer activities), though it doesn't last for long. Maple is an important part of our family life! We raised our three kids on maple. As the breakfast chef, there was a rotating menu of pancakes, waffles and French toast – always with a maple smoothie. Our supplier friend, Gerry Crainey, used to joke that I should just buy our syrup in drums.



### DR. CATHERINE BELISLE

Maple Program Food Scientist and  
New Product Development Specialist  
Dr. Belisle has advanced degrees in horticulture sciences. Her work has focused on understanding the sensory and chemical makeup of foods and in preserving the quality of produce. As a food scientist in the Cornell Maple Program, Catherine develops foods and beverages using maple syrup and maple sap.

A lot of people don't know that I have 7 siblings and I am the only girl. As favorite fall activities go, my family has always been centered in the kitchen. When we are together over the holidays, we spend hours cooking and testing new recipes. I must admit, I am new to maple outside of enjoying it on pancakes and waffles. However, as I dive into the science of maple, I am captivated by its diversity as a product. It can be used to compliment drinks (electrolyte drinks, sodas, and alcoholic beverages) or to enhance the flavor of staple confections (marshmallows, chocolates, and candies). It is a joy to work with this commodity and develop recipes.



### AILIS CLYNE

Maple Program Technician  
Ailis joined the Arnot Forest research team in 2018. Her research interests include forest ecology and sustainable resource management, temperate agroforestry systems, and all things value-added. She works on maple-based fermentation and developing novel maple products, including wines, vinegar and chocolate. As a team their goal is to sustainably grow the maple industry through research and education.

Something interesting about me is that I have a twin! A fun seasonal activity that my family does together is skiing. My mother is from a ski town in Maine, so the whole family skis together. Some more reluctantly than others. My favorite thing about maple is its legacy. I love that it's a food, steeped in tradition with an admirable history, that instills pride in the people of the cold regions where it's produced. The enjoyable, though laborious production process offers many moments to reflect on its history, and to engage with the landscape in a uniquely synergistic way. Maple is one special crop.



## Some of the Projects Underway Planned by The Arnot Forest Team

### SYRUP QUALITY

- **Flavor control calculator**
  - Experiments to generate data for making tools to control syrup flavor
  - Determine holding time to reach the desired invert based on starting invert, temperature, and oxygen levels
  - Create a tool for quick determination of sap holding conditions for desired grade and flavor
- **Impact of long-term concentrate storage**
  - Test syrup quality for concentrate at a range of Brix stored for varying amounts of time
  - Identify variables impacting viable storage period
  - Test methods for operating chilled tank to maintain quality
- **Impact of ultrafiltration on flavor**
  - Test effectiveness of ultrafiltration in reducing microbe levels
  - Test impact of ultrafiltration on flavor
- **Intensifying very dark flavor**
  - Test methods of intensifying flavor by managing dissolved oxygen levels and microbe populations

### SYRUP PRODUCTION EFFICIENCY

- **Comparative RO membrane performance**
  - The testing processing rate of four different membranes with a standardized solution
- **Comparative filter aide performance**
  - Test filter aide brands for syrup clarity, flow rate, and time to filter change

- **Processing efficiency for chilled concentrate**

- Calculate cost of storing concentrate versus processing immediately

### NEW PRODUCTS

- **Maple Chocolate**
  - Make dark chocolate samples
  - Refine white maple chocolate recipe to reduce cost and improve shelf stability
- **Hot Maple Beverage**
  - Research and purchase packaging options
  - Refine Recipes (add water and milk)
- **Soda: Two additional recipes**
  - Root Beer
  - Grapefruit
- **Improved Maple Marshmallows**
  - New production process and packaging options
  - Improve recipe for flavor, shelf life, and consistency for campfire toasting
  - Develop dehydration method for cocoa and cereal
- **Maple Sports Drinks**
  - Create two new recipes
  - Work with Cornell Food Venture Center to develop process authority approval and scheduled process for the safe production of each recipe

### TRADITIONAL MAPLE CONFECTIONS

- **Refine processes for water jacketed maple cream and candy machine**
- **Identify temperature and density variables affecting equipment operation and finished product quality**

- **Create a new method of vacuum cooling for getting cooler before stirring**
- **Streamline maple cream and granulated maple sugar production processes**
  - Build on previous vacuum cooling research to develop a more efficient process that works with large volumes for maple candy/cream. Specific tasks include testing different styles of vacuum pumps, vacuum chambers, and moisture traps for cooling speed and durability. Evaluate cost-effectiveness and develop guidance for producers
- **Crystal Coating**
  - Determine optimal invert levels and application methods for crystal coating and preservation of maple candy to improve quality and shelf-life
  - Research crystal coating application options
  - Evaluate crystal coating density, temperature, and invert sugar level options
  - Evaluate sucrose crystals harvested from the supersaturated, low-quality syrup as a crystal coating source
- **Cotton Candy**
  - Determine best storage container (year not specified)
  - Intensify maple flavor
- **Buddy Syrup Product Development**
  - Alcohols, confections, beauty products, etc.



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Maple Popcorn  
Maple Peanut Brittle





**A**fter doubt and uncertainty that the NYS Fair was going to even take place, the NYSPMA continued a nearly 75-year tradition of serving maple syrup and maple products to fairgoers.

Naturally, the State Fair attendance numbers were drastically affected by COVID-19, and daily attendance was lower than in previous years due to the extended 18-day fair this year.

Thankfully, New York State Fair officials have announced that they are resuming with the original 13-day state fair next year. We feel that this is a better alternative for the association and other businesses and organizations that had difficulty staffing their booths. Crowds were definitely smaller this year, but it did give fairgoers the ability to not feel as compressed and made the fairgrounds feel even larger.

The Horticultural Building assembled a large number of picnic tables that were directly adjacent to the NYS Maple stand, allowing fairgoers to sit and relax while enjoying maple ice cream and other maple products that we were offering.

We certainly wouldn't describe the sales as brisk, but we are glad we participated and were able to connect with faithful clients and friends we see every year, serving up some of the familiar favorites like maple ice cream, candies, maple cotton candy, and Pure New York State Maple Syrup.

The association is thankful to all the staff and volunteers that made this year's New York State Fair participation possible. We feel that it was a successful year, and we are very optimistic to return to the fair next year to connect again with old friends and maple producers alike.



Greg Zimpfer  
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Attica, NY 14011  
(585) 591-1190  
grzimpfer@gmail.com

**Add something different to your product line.**

### Maple Coated Dog Biscuits

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Call , text or email me for pricing. I can package them in packages of 4 biscuits to a package or bulk, package them yourself and save money.



# JOB OPENING

## Adirondack Maple Farms in Fonda, NY

**Full-time position for a responsible individual to maintain maple sap tubing, some bottling and mechanical duties.**

Wages are based on experience and for the right motivated person, a paid percentage based on the season's crop.

Email résumé along with references to [bruceroblee@yahoo.com](mailto:bruceroblee@yahoo.com). Office telephone is 518-853-4022.



## Maple Weekend 2022 - Is On!

**T**he 25th annual Maple Weekend in NYS will be held on **March 19, 20, 26 & 27!** We are really looking forward to inviting the public to our farms on these two weekends to experience the sweet tradition of Pure NYS Maple, especially since we were unable to the past two years due to the pandemic.

Thankfully, things will look different at our sugarhouses this March. People from across the state will travel from near and afar to learn about maple's sweet history, see how it is produced, taste its pure sweetness, and enjoy all that maple has to offer.

Register to participate and be a part of one of the Association's biggest, most exciting events of the year! Registration forms are being sent via email and USPS mail. You can also go on the website to renew your membership for 2022 and sign up for Maple Weekend: <https://sugarmakers.nysmaple.com/>

**Register Now!**

**It will be here before we know it.**



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*A new NYSMAPA membership runs from  
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1 YEAR: \$69.

3 YEAR: \$190.

ASSOCIATES: \$25.

*(Must be a colleague of a full member)*

RETIRED *(No longer making syrup)*: \$25.

STUDENT: \$10.

*(Must present proof of school registration)*

**Contact:**

Helen Thomas, Executive Director

office@nysmaple.com

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