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## Hello fellow syrup makers!

What a great grading seminar we had on Friday May 20th with Les Ober and the annual meeting, contest and banquet with awards. Please put on your calendar 5/20/23 for the next annual meeting, contest and banquet. We plan to start the banquet at noon so we can all get home at a decent time. A few producers are saying sales are slow this year. The economy is affecting all of us. The WV State Fair again was short on volunteers but a great moneymaker. Let's start gearing up for 2023 syrup season! Our next meeting is virtual Oct.10th at 7pm.



President Paul

## Fall 2022 Sugar Camp Tours

One of the best ways we increase our Maple knowledge is by learning from each other. "What worked, what didn't, how'd the season go, and have you tried this?" begin discussions that can go on forever among syrup makers. To those new to the syrup game, there is nothing like getting a thorough tour of a sugar camp by an experienced hand.

This fall Future Generations University's Appalachian Program is working with West Virginia maple syrup producers to conduct study tours of four sugaring operations.



**9:00 to Noon– At Laurel Fork Sapsuckers (LFS), in Monterey, Virginia, Ronnie Moyers and family will take you on a tour of their sugaring operation focused on the importance**

of keeping sugaring traditions alive in Appalachia. In the woods, you will see how the Moyers have been managing their sugarbush to increase tree growth and sap sweetness through timber management. LFS serves as a demonstration area for how a sugarbush can be managed for multiple services, and timber and non-timber forest products, all aimed at maintaining forest health and increasing operational profitability. The integration of other nature-based enterprises that provide shoulder season income, and festivals and agritourism events that complement and raise awareness of the LFS maple syrup operation will also be discussed. Time and available resources (labor, finances) are critical for adding festivals or other farm-based enterprises.



**1:00 to 4:00- Frostmore Farm in Dunmore WV.** At a per tap yield of 0.41 gallons of syrup, Frostmore Farm in 2022 was one of the highest-producing sugaring operations in West Virginia. Owners Adam and Rachel Taylor will emphasize production efficiency, woodlot management practices with the assistance of the family forester, and taking advantage of resources such as crop diversification, agritourism, and funding resources. The discussion will include the evaluation of new crops and services to supplement the syrup operation. The Frostmore tour will explore marketing strategies, integrating maple value-added products, and economic impacts at the farm and throughout the region.

## SATURDAY, OCTOBER 15TH



**9:00 - Noon – Family Roots Farm in Wellsburg West Virginia.** Family Roots Farm dates back to the Revolutionary War period. Maple syrup is one of many farm enterprises, that include pick your own strawberries in the spring, high tunnel tomatoes in the summer, and sorghum syrup in the fall. We will explore how Family Roots Farm engages its community in agritourism programs. They partner with local bed & breakfasts, farmers' markets and others to provide educational tours, farm to table dinners, pick your own berries and vegetables, and maple-related adventure activities. Family Roots is constantly evaluating their programs and is currently working on website improvements with ecommerce and successful virtual events promoted through social media campaigns. Owner Britney Hervey teaches maple syrup making and agriculture courses at the Country Day School in Wheeling.



**1:00 – 4:00 - Heasley's Homestead Maple – Bruceton Mills WV.** What do you get when you put a retired WVU professor, who is also a professional engineer in a sugarbush? You get gauges on all your lines, a spreadsheet to determine tapping density and all the data needed to prove the efficacy of a 3/16 natural vacuum tubing system. For those of you using 3/16, and almost everyone in WV is, a

trip to Keith Heasley's is a must. You will leave with more ideas to improve your sap yield than you can imagine. We'll spend time in Keith's woods, and tour his modern and efficient sugarhouse. We will also weave in discussion on business development practices, a unique marketing/distribution scheme, and how research has been critical for enterprise decision making at the farm.

For more information or to register email [syrup@future.edu](mailto:syrup@future.edu) or call Kate Fotos at 304-358-2000.

This program is funded through a USDA Acer Access grant in conjunction with the Future Generations University [www.future.edu/maple](http://www.future.edu/maple), and the West Virginia Maple Syrup Producers Association, [wvmspa.org](http://wvmspa.org).

## Highlights from the WVSMPA Annual Meeting Minutes

By Tina Barton

The detailed minutes are posted on our website in a blog post. <https://wvmspa.org/2022/07/08/meeting-minutes-from-the-wvmspa-2022-annual-meeting-may-21-2022>.

Here are some highlights.



*Gary Mongold - Best Walnut Syrup, with President Paul Ronk*

### Who Attended

26 farms and/or individuals were represented at the May 21, 2022 meeting. There were more than 26 people, however, since some farms were represented by multiple family members. The number of taps per farm ranged from zero to 11,000!

### Order of Business

1. Brandon Daniels gave the 2022 crop report, given in full in a separate article in this publication.
2. Maple Days – How it went: Most of the participating farms reported that they like the events. They ranged from 375 guests to very

small events, such as a walnut syrup day held by Gary Mongold, and a neighborly gathering at Croagh Patrick in Tanner (Gilmer County).

3. Maple Days Advertisement - Keith Heasley recommended calling local newspapers and TV Stations, and that the Market Bulletin is a good place to advertize. It is best for the producer to try to work with their region business associations and news outlets because the Maple Days Committee doesn't know the best outlets for every region.
4. Maple Days 2023: 3rd Saturday in February and March will continue to be the rule – that means February 18 and March 18 in 2023. We hope to repeat the Ceremonial tapping with the WVDA commissioner, as happened in 2022. Website has been updated with the 2023 participation form. FGU will get the Maple Days press release out early and cross-list with other businesses.
5. Walnut Syrup - Kate Fotos led a discussion about walnut syrup. The main note is that pectin in the sap shows up as you boil. It needs to be filtered or dipped out early and often. It tastes like the syrup and can be used in spreads and in cooking. Research continues on the best tapping and cooking practices for walnut syrup.
6. Improving Production – Mike Rechlin gave a summary of sanitation, grading and quality control workshops that were given, and how they have improved production. FGU can help with line-cleans such as they did with Family Roots Farm.
7. The West Virginia State Fair – There will be a savory contest (see our website and the State Fair website). Mark Bowers suggested a maple display in the WV State Building at the fair. We have a TV with video looping showing sugar

shack activities. Also Brandon Daniels needs volunteers for selling cotton. Assistance for gas is available from WVMSPA. Though the Fair is over this year, we need to get a jump on next year to have more help at this important event.

8. Future Generations University Update included Mobile Sugar Shack activities, educational tours, Out of the Woods webinars, the Fall Certificate Program, plans for more advanced workshops such as marketing and business planning, and work ongoing to update the Regulatory Handbook. FGU also provided free wooden tapping hammers to reinforce the fact that taps should not be pounded in too deep or hard.
9. Regulatory Issues: Selling syrup through a 2nd party requires FDA approval; Feds are tightening up in Virginia but leave West Virginia alone more because we have the regulatory manual; FGU can help with regulatory issues – email [syrup@future.edu](mailto:syrup@future.edu); State Inspection is advised but not required – they will not shut you down but give good suggestions for improvement; FGU can give a pre-inspection.
10. Sycamore Syrup Research (FGU) – Vacuum is crucial; FGU is one year into a two year grant.
11. US Department of Natural Resources: Jeff Barr and Jeff Griffith both spoke about forest management, reducing energy needs with technical and financial assistance, for example with higher efficiency evaporators, reverse osmosis, high efficiency pre-heating system – payment rate is available per square foot.
12. Joe Hatton, the WVDA Deputy Commissioner spoke after lunch
  - Avian Influenza is a real concern for the region – West Virginia is in the Bullseye, especially of concern with those with backyard flocks.
  - WVDA Commissioner Leonhardt is the president of an aggregation of 14 community Department of Agricultures for many states, so we are well represented.
  - Maple Survey sample size is down, which hurts us when it comes to federal grant money
  - The West Virginia Grown T-shirts are a good branding opportunity
  - Suggested having maple events other times of year – June is Dairy Month and ice cream goes well with maple!
13. Pocohantus County maple day was fully-

engaged, marketed and very well organized– a good example for all regions to follow.

14. New licensing for Farmers Markets means one fee and one permit for the whole state. But some members argued it was too expensive and cumbersome for those who only participate in one market.
15. Budget is a challenge
16. On July 1 the county assessor will send farmers and assessment form and maple producers should be able to claim a farm exemption for property taxes.



*Keith Heasley with the best Very Dark Syrup*

17. Treasurer's Report was approved.
18. NAMSC/IMSI: Jamie Schuler is going to represent WVMSPA in place of Mike Rechlin – they will talk to IMSI about getting isopropyl alcohol approved as a cleaning agent like in Canada.
19. Tom Salvetti of the Nominating Committee led the vote for new officers. Brittany Hervey-Ferris and Kris Marsh are still current board members. We had five new nominees, all of which were voted on (we can have up to 8 board members). The current officers will continue in office.
20. President is Paul Ronk, VP is Greg Christian, Treasurer is Keith Heasley and Secretary is Tina Barton. The new additions to the board are Cathy Hervey, Michael Gray, Mark Bowers, Tom Salvetti and Kody Boone.
21. Free Discussion
  - Bulk prices were discussed and Luke Taylor-Ides said that Vermont and Canada are setting the national rate, but the regional market will pay more for locally produced food products. Our syrup is devalued if sold outside the region. There is a wide disparity between what WV producers charge,

depending on their local markets and what their customers can pay.

- Brandon Daniels talked about the industry in general: The US had the biggest crop in along time, Canada's reserve is dwindling, inflation will hurt sales, CDL has supply chain issues and are pre-buying 2 years in advance.
- Peter Gregg of Maple News was asked to speak. He was surprised about how much 3/16th tubing is being used in West Virginia, but it is because of the natural gravity provided by our slopes. It is being ripped out elsewhere. Demand for maple has been sky high and while the economy is worrisome,

technology advances are amazing. Climate Change is a thing. As it is getting warmer earlier in the year, some producers are missing January runs.

### 23. Banquet

- The banquet was well-attended and delicious! It was right there at Jacksons Mill.
- The winners of the contests were announced. Family Roots won a few certificates for maple products – savory and sweet. Keith Heasley had the best very dark syrup. Mongold Walnut Farm had the best walnut syrup. M&S Maple also took home a lot of prizes.

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## A Walnut Tapping Industry on the Rise

By Mike Rechlin

The southern tier of maple producing states have the resource base necessary to support a walnut sap and syrup industry. Mike Ferrell, in *The Sugar makers Companion*, estimates that there are 6 million potential black walnut taps in West Virginia and 7 million in Virginia. That counts as a significant resource. Black walnut is a high value timber species, and anyone considering tapping should consider the options before drilling tapholes. That being said, you don't have to tap your best trees to get into the walnut syrup business. Low grade timber trees can produce high grade walnut syrup.

The opportunity provided by a high retail price for this specialty syrup is enticing a number of landowners with the appropriate resource to start tapping walnut trees. In addition to a growing community of "backyard" hobby walnut syrup producers there are three landowners in Virginia and West Virginia who are tapping at a commercial scale.

**Tonoloway Farm:** Christoph Herby runs Tonoloway Farm in McDowell Virginia. His website [TonolowayFarm.com](http://TonolowayFarm.com) titled "Appalachian Forest Foods" states that Tonoloway farm is North America's largest producer of walnut syrup. Christoph has been making walnut syrup for the past 3 years. Each year he has upgraded his evaporator to keep pace with his expanded operation. He has 3/16-inch natural vacuum lines that have successfully developed over 20 inches of vacuum and lines on



*Mark Bowers hard at work installing tubing.*

artificial vacuum using diaphragm pumps. In the 2022 sap flow season Tonoloway Farm put in 1,600 taps and produced 40 gallons of walnut syrup. That is not a lot of syrup by maple standards, but when you're selling it retail at \$7/ounce and blending

most with maple to produce a value-added maple-walnut produce, it does not take a lot of syrup to make a lot of money. With an inquisitive mind, Christoph has also developed a research agenda. Working with Dr. Tom Hammett at Virginia Tech on projects to develop a flavor profile for walnut syrup and studying natural and artificial vacuum on walnut sap lines.

**Bess Farm:** Owner and walnut syrup maker Elton Bowers is located in Upper Tract, West Virginia. The 2022 sap flow season is the third year Elton has been tapping both maple and walnut trees. He boils down his own walnut sap and sells maple sap to neighboring sugar maker Mark Kimbell of M and S Maple. Like Christoph Herby, Elton has expanded his operation and upgraded his equipment each year of operation. This past season Elton made 12 gallons of walnut syrup from 755 taps.

In addition to the production side, Bess Farm also served as the research site for a number of sap flow studies conducted by Future Generations University. Along with the work being done at Tonoloway farm, these studies are helping us better understand walnut sap flow and to develop tapping practices to increase production.

**Mongold's Walnut Syrup,** Petersburg WV: The newest addition to the walnut tapping world is Gary Mongold. This past season was Gary's first year of production. Using the adage of "building a ship while you're sailing it" Gary started out the season with 426 taps. With a lot of work in the snow he ended the season with 710 taps. Halfway through the season he turned on his vacuum pump, doubling sap flow in each of the next 4 runs. Gary ended the season having produced 17 gallons of walnut syrup and 5 gallons of a thickened gel, believed to have been thickened by natural pectins in the sap. He is selling his product retail for \$768/gallon or \$6/oz. He is also finding a market for the pectin rich gel, which is purported to relieve pain related to arthritis and gout.

Gary Mongold's operation became the primary site for Future Generations University's walnut sap and syrup research during the 2022 sap flow season. In addition to setting up systems to keep accurate records on production and expenses, we conducted some late season trials on running walnut sap



*Concentrating walnut sap.*

through an RO (reverse osmosis process). Although common knowledge is that the pectin in the sap quickly clogs the membrane of the RO, we found that by running small batches (up to 100 gallons) through and desugaring often we were able to increase the brix of his walnut sap from an average of 1.3 percent to 4.2 percent, with accompanying decreases in boiling time and energy expense. We also conducted trials of running the sap through a flow through centrifuge prior to the RO. Laboratory trials indicated that centrifuging walnut sap removed pectin from the sap. These trials are still inconclusive.

**Hobbyists:** In addition to these larger scale walnut syrup producers, we know of at least ten small scale "backyarders" making walnut syrup for fun and for personal use. Although not marketing their product, some of these producers have the potential to grow their operations in the future.

To assist in the growth of the walnut tapping industry, Future Generations University has recently published a Walnut Tapping Primer

summarizing what we know about walnut sap and syrup production. This resource is available on the Future Generations website at <https://www.future.edu/syrup-resources/>. With such a young industry, what we know is constantly evolving. Every new walnut tapper and syrup maker is learning and contributing to the pool of knowledge and practices that we all draw on. In

addition to the Walnut Tapping Primer the Black Walnut Syrup Makers Facebook group site <https://www.facebook.com/groups/2965351326865418> is a valuable repository of this accumulating knowledge as well as a place to engage the walnut tapping community with questions and find answers that will help more people in their walnut tapping endeavors.

## Getting Teachers and Youth in the Woods



As temperatures start to cool down, fall and football are in the air, and this means school children all over the state are headed back to their classrooms. This year, Future Generations University has received funding to pilot school-based agriculture work with teachers and community leaders, including Maple in the Classroom. This Northeast SARE project will both train and work directly with teachers as facilitators of their own project-based initiatives in classrooms. West Virginia teachers will receive a small stipend and funding to complete one project of their choosing and may select from topics such as agroforestry, school gardens, or tree syrups. In exchange, teachers agree to attend 15 trainings, offered virtually, over a 9-month period and complete a school agriculture plan with their own chosen leadership teams.

For those that select Maple in the Classroom as their project, the university will be having coordinated

trainings on the K-12 curricula, originally developed with Experience Learning and the WV Maple Syrup Producers Association. Through additional grant funds, Future Generations University can offer additional funding for materials and supplies this year. Maple in the Classroom is a comprehensive science and math focused opportunity for students which also matches individual schools with maple producers throughout the region. It connects youth with real-world business opportunities and hands-on education to bring forestry into the classroom setting.

The goal is for educators to start small and build sustainability throughout their projects. Do you know an educator who might be interested? Are you a maple producer who wants to get involved with youth maple activities nearby? If so, please email Jenny Totten at [jenny.totten@future.edu](mailto:jenny.totten@future.edu) for more information and keep a look out for the sign up form on social media!



# Northern Maple TOUR

Presented By: Future Generations University  
Appalachian Program

## WORKSHOPS SUBJECTS COVERED

Community Engagement | Agritourism Programs | Educational Tours | Adventure Activities | Natural Vacuum Tubing | Sap Yield Improvement | Business Development | Marketing | Research for Decision-Making

\*\* Please plan to arrive between 8:30 am and 9 am for the first workshop and between 12:45 pm and 1 pm for the second.



## SUGAR CAMP ADDRESSES:



**Family Roots Farm:** 245 Hervey Ln, Wellsburg, WV 26070



**Heasley Homestead:** 2988 Compressor Station Rd, Bruceton Mills, WV 26525

## EVENT DETAILS:

Snacks/ light refreshments will be provided. Please wear appropriate clothing & footwear for an outdoor workshop.

## CONTACT INFO:

syrup@future.edu  
www.future.edu/maple  
304-358-2000

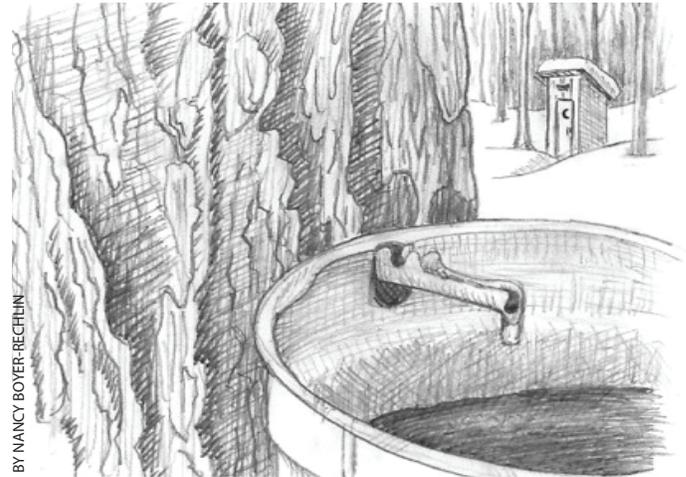
# West Virginia Maple Season Update

By Brandon Daniels

The 2022 maple season was a repeat of the 2021 season. Temperatures in November and December were above average, and this had some producers tapping by the middle of January. Once again, January brought cold temperatures, and these conditions continued into the first ten days of February with very little maple syrup being produced during this time, even in the warmer areas of the state.

In most areas of the state, the sap flowed strong starting February 10th through the end of the month. The temperatures were good for sap flows most of these days with producers making 50 to 70 percent of their crop. Then came March, and once again the season ended quickly. Producers in the warmer areas finished in February and did not attempt to produce in March. Sap flows in most areas stopped by the third or fourth of the month and the next ten days brought well above average temperatures to all the state. Producers with high vacuum were able to get through these days and still produce when more productive temperatures returned in the middle of the month.

The statewide average was between two to three lbs. per tap and overall, about 80% of a normal crop. Some producers had average or slightly above average sugar content, while others reported below average sugar content. A lot of the state's crop is



produced in March and after a great start in February, the average would have been 100% crop if the conditions in February could have continued the first 10 to 14 days in March. Most producers reported the crop was darker than normal with a lot of dark syrup produced during the 2022 season. Some off flavored syrup was produced after the ten days of above average temperatures during the first half of March.

While the 2022 season was well below average for most, most producers in the warmer climates of the state reported an average crop like the 2021 season. As we look forward to 2023 with great hope and anticipation of a better crop, we are also very thankful we surpassed the 60% to 70% crop produced in 2021.

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## Mountain State Maple Days 2023

With fairs and festivals kicking into full swing, it's a good time for a Mountain State Maple Days 2023 update and reminder! The Future Generations University Appalachian Program has already been busy working to get things ready for the upcoming year's festivities with the WVMSPA Association! With the help of the Association's Officers, save-the-dates were designed, ordered, printed, and distributed at the State Fair of West Virginia! During this time, new nutritional outreach cards were also designed and distributed on behalf of both organizations. If you would like to reserve copies of the save-the-date cards, please email [syrup@](mailto:syrup@future.edu)

[future.edu](mailto:syrup@future.edu) to request your copies.

National Maple Syrup Day is Saturday, December 17, 2022. Future Generations University Appalachian Program, the WVMSPA, the Pocahontas County Convention and Visitors Bureau, and many other organizations will be partnering again this year to kick off the maple season on December 17 with a series of special activities! To learn more about how you can participate contact Lindsay Kazarick, Communications Associate at Future Generations University Appalachian Program, [lindsay.kazarick@future.edu](mailto:lindsay.kazarick@future.edu).

Mountain State Maple Days will officially commence on February 18, 2023, and March 18, 2023. This year we are planning to develop a monthlong series of activities between the two dates. As more information becomes available, updates will be posted to [www.wvmspa.org](http://www.wvmspa.org), the WVMSPA Facebook page, and Future Generations University Appalachian Program Facebook page ([www.facebook.com/futureappalachia](http://www.facebook.com/futureappalachia)). Be sure to check in, like, and follow to receive updates regularly.

Last but not least, last fall Pocahontas County CVB Director, Cara Rose, was the guest speaker on the Out of the Woods: Enriching Your Maple Business webinar. She presented on agritourism best practices and how to bring more people to your farm through partnerships and networking. If you missed that or if you're thinking of incorporating agritourism into your business, check out Cara's webinar here: <https://bit.ly/fgu-agritourism>.

# West Virginia

USDA Natural Resources Conservation Service



## **Environmental Quality Incentives Program (EQIP) is a voluntary conservation program that syrup producers should consider.**

Maple syrup has been part of Appalachian culture for hundreds or even thousands of years. West Virginia is largely forested, and sugar maple is a common species across the state with maple syrup being a viable crop produced in every county. Other tree syrups such as Walnut and Sycamore are also being produced in West Virginia. A common theme in syrup production is the extremely high input costs to produce just one gallon of syrup.

The USDA's Natural Resources Conservation Service (NRCS) provides technical and financial assistance to land users across West Virginia to address resource concerns on agricultural and non-industrial private forestland operations. EQIP's "On-Farm Energy Initiative" helps agricultural producers make voluntary improvements to address inefficient energy use, including addressing energy efficiency within a sugaring operation. Why is energy efficiency important? Improving energy efficiency on agricultural operations contributes to reducing reliance on fossil fuels and reduces energy input costs while maintaining or increasing productivity. Energy efficiency is improved when more efficient equipment is used or when existing equipment is modified to operate more efficiently. An agricultural energy assessment is an initial step

to address inefficient energy use. The assessment determines a baseline of energy use of systems, equipment, and facilities. It also offers strategies to increase energy efficiency.

The assessment will provide:

- Itemized energy use to establish a baseline for electricity and other fuel improvements,
- Recommendations for equipment improvements and upgrades,
- Potential energy reductions and financial savings for each recommendation
- Cost estimates of potential improvements, and
- Length of expected payback for energy efficiency upgrades

"Through EQIP, financial assistance may be available to assist syrup producers with the development of an agricultural energy assessment and equipment upgrades that are more energy efficient," said NRCS-WV EQIP Program Manager, Jeff Griffith. "The agricultural energy assessment may provide recommendations for equipment such as high efficiency sap evaporators, reverse osmosis, enhanced high efficiency sap preheating systems, or motor upgrades."

NRCS also provides assistance for forest management practices that would benefit sap producing trees. Examples of beneficial forestry practices are thinning the forest to give sap-producing trees more room to grow and controlling non-native and invasive plants.

LAUREL FORK SAPSUCKERS  
*Hosts*  
**MAINLINE INSTALLATION**  
*Workshop*



## ABOUT THE EVENT

Laurel Fork Sapsuckers, located in Hightown, VA will host H2O Innovation as they conduct a workshop on mainline installation.

Join Missy Moyers-Jarrells in her sugarbush along with members of the Future Generations University Appalachian Program while you learn from the team at H2O Innovation about proper installation and layout.

## THE DETAILS

- **MONDAY, SEPT. 19**
- **9 AM -4 PM**
- **LUNCH PROVIDED**
- **WEAR APPROPRIATE FOOTWEAR**



 540-290-1676

 [future.edu/maple](http://future.edu/maple)

 10677 Mountain Turnpike,  
Clay Hise Ln, Hightown, VA  
24465

To qualify for financial assistance, producers must complete forest management practices consistent with an NRCS-approved forest management plan. Two beneficial forestry practices are Forest Stand Improvement and Brush Management.

Syrup producers across West Virginia are encouraged to contact their local NRCS field office for information on conservation planning and financial assistance opportunities. Although NRCS

offices accept program applications year-round, application evaluations only take place during announced ranking periods. An application ranking period for 2023 funding has not been announced, but interested producers are encouraged to apply for EQIP by October 15, 2022. For more information, visit a local USDA Service Center <https://offices.sc.egov.usda.gov/locator/app> or our website: <http://www.wv.nrcs.usda.gov>. USDA is an equal opportunity provider, employer and lender.

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## Maple Quality Control and Grading Workshop Recap

By Tina Barton

Whether you are a novice maple producer (or maple producer wannabe) or a seasoned producer, you should attend a quality control/grading workshop at some point. The West Virginia Maple Syrup Producers Association, in conjunction with Future Generations University and Ohio State University hosted one on May 20, 2022, the day before our annual meeting. We had 14 students who ranged in experience from being in their first year of tapping, to ones who have been producing for decades. They had taps ranging from zero to 2,500 taps.

Les Ober from Ohio State University started off the class. He is a 4th generation maple producer with 40 years of experience. He claims to have learned maple by doing. He lamented that there have been climate change woes in Ohio of late.

He warned that the barometric pressure and altitude can affect the boiling point of water at a given place on a given day, so temperature of the boiling syrup is not the best determination of when it is officially “syrup”.

He talked about Brix, which is a measurement of how much sugar is left in your syrup, and what the measurement should be (66 Brix) to officially call it “syrup”. The temperature of your syrup affects the Brix measurement. Your hydrometer measures the Brix. It should float in your syrup in a tall narrow metal container, and the measurement that lines up with the top of the syrup is your Brix. There will be a red bar for cold syrup and a red bar for hot syrup. He suggested that you have two or three hydrometers to make sure the reading paper inside has not slipped so that you

are sure to get accurate readings. You should make sure it is clean, and kept warm between readings.

A Murphy Cup, in place of a plain narrow container, is a nice option because it measures the temperature of your syrup and tells you exactly what your Brix should be when you gently float your hydrometer into the cup. While most of our producers are well-versed in Brix, the idea of having multiple ones because they can drift in accuracy is a tip that helps improve quality. I also didn't know it should be kept warm. I want a Murphy Cup now.

Another tool for making sure you have syrup is the refractometer. The syrup must be stable before using the refractometer. You should use it right before canning after letting the syrup sit 10 to 15 minutes to get stable. It has a prism inside and can analyze how much sugar is in the syrup or sap depending on how the light bends through it.

Another pro tip that came up: Niter buildup (sugar crystals, minerals) in the front pan of your evaporator can cause hot spots, which can lead to a scorched pan and darker syrup. There are trade-offs for how often you clean your pan depending on the time and energy constraints of the producer. The bottom line was “know your pan” – it is different for every producer's set-up.

We had a grading exercise then, to determine the color of various samples. There is a tool called a spectrophotometer that can be used to grade syrup, but they are rather expensive so we generally didn't use those. We were lent a grading kit, which consists

of a small bottle of each of the color grades, and a clean empty bottle. The bottles sit in a small crate with a hole in front of each bottle. You put your syrup in the empty one and compare it to each color in turn. If it is darker than one grade but lighter than the next, then you go with the darker grade. If it is darker than golden, but lighter than amber, for example, then it is graded as amber. It is important to get the grade correct if you want to enter your syrup in a contest. I found that out the hard way!

The second half of the workshop was hosted by Mike Rechlin. He talked about the science behind the sweetness. Here are some points.

- Trees have a stimulus messenger-action relay process that works similarly to what happens when we stub our toe. Our brain very quickly gets a message that we stubbed our toe, the pain is felt and the healing begins. Once a dormant tree wakes up and realizes it's been poked with a taphole, it will begin the healing process.
- Trees need energy to leaf out quickly, so during the sapflow season, they hydrolyze stored starches to sugar.
- There is root growth occurring all winter.
- The buds on the tree are sensors which sense light and temperature to know when to open up.
- Auxins are communication chemicals. The more auxins you have, the darker the syrup. This is why the syrup produced later in the season is often darker.
- Buddy syrup smells like sulphur when boiling, and when you smell that, it is time to pull your taps and quit boiling. You cannot save buddy syrup.
- A "metabolism" flavor smells like popcorn or cardboard, not sulphur, and when you are boiling such sap, it smells like you are boiling old sneakers. It can happen any time of the season. It can be reduced through reprocessing – you can try heating up the syrup to about 240 degrees and then cool it down and add clean water.
- Sour sap is caused by contaminated equipment – lines, buckets, and storage tanks. If you have sour sap, go through and clean what needs to be cleaned. It is not the end of the world.

You can obtain kits that contain samples of off-flavor syrup to compare to your own syrup. We were provided samples to smell (and taste if we were brave), and then provided unlabeled samples to identify.

Though this only took you a few minutes to read, we had hours to learn from the experts and to have free discussion about specific issues we have. We also had pizza! I highly recommend attending a workshop if you get an opportunity.

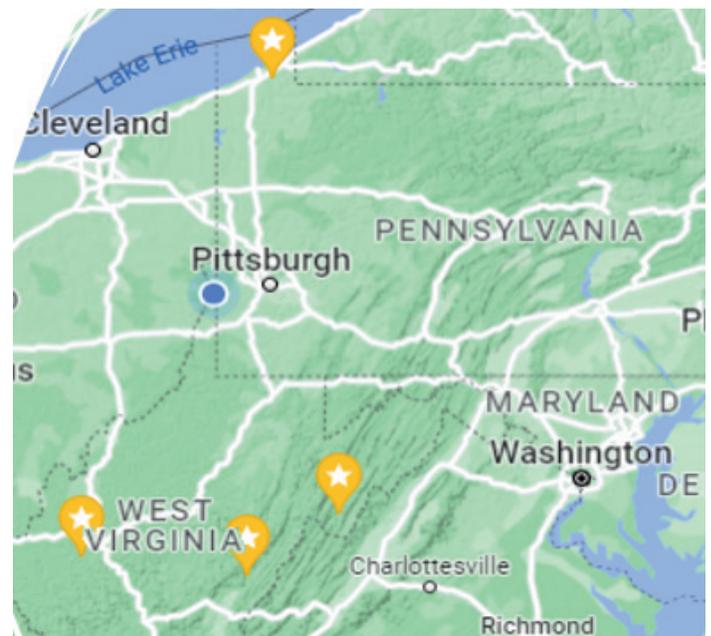
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## Sycamore Research Update 2022

This past sap season, Future Generations University, under funding from NE SARE, partnered with four producers to continue researching sycamore syrup production. Because this was the first year of a two-year study, the researchers mainly focused on collecting baseline data for each site. Data on the run dates, gallons of sap produced, brix, and weather conditions were collected.

Though there is still more data analysis to be done, there are some interesting site-to-site differences. Average brix ranged from 0.47 to 0.75, and gallons of sap per tap ranged from 1.9 gal to 12.3 gal. Keep your eyes out for a more detailed report in the coming months.

Future Generations University would like to thank their partnering farmers: Paul Ronk, Trevor Swan, Jacob Noonan, and Luke Taylor-Ide. We are looking forward to learning more about sycamore sap flow and syrup this coming sugaring season.



*Locations of the four research sites.*

# WVMSPA Website Update

By Tina Barton

## Maple Days 2023

The 2023 Maple Day form is up! Official Maple Days will be held on February 18 and March 18 2023. Feel free to plan early and get signed up. We talked about this at the May meeting. It is important to coordinate with your local businesses and community/county organizations. The most successful maple days in the past were hosted in areas where events were well organized and coordinated. In 2022, that included Franklin and in Pocahontas County. Also, it is important to reach out to local newspapers and radio stations. WVMSPA does limited advertizing, Future Generations write a press release for WV Departments of Agriculture and Tourism, but local media outlets need a nudge from producers. All this takes time. Please see the "Maple Days 2023" tab on our website at [www.wvmspa.org](http://www.wvmspa.org) or go to <https://wvmspa.org/mountain-state-maple-days>

## Annual Dues 2023

Annual dues are only \$25 per household (not per farm – for example one farm may be worked by multiple households). They are due by May 31, 2023, but you can pay them any time after the end of the year. There is a mail-in form at the end of this newsletter. Go to the "Join On Line" tab on our website, or go directly to this link: [https://members.wvmspa.org/?page\\_id=53](https://members.wvmspa.org/?page_id=53)

People receiving this newsletter in the mail are already paid up for 2022. If you know a maple producer who did not receive the newsletter, ask them to join (or pay up if their membership lapsed). Then at least they can see this newsletter on the members-only website soon after it is mailed out.

## Newsletters on the Website

When we publish a new newsletter, I roll the old newsletter over to the public website, and add the newest one to the members-only website. This is because receiving these newsletters is a perk of paid members. Go to the members-only website, [www.members.wvmspa.org](http://www.members.wvmspa.org), hover over the RESOURCES tab, and click on "THE MOST RECENT NEWSLETTER", or go directly to this link: [https://members.wvmspa.org/?page\\_id=181](https://members.wvmspa.org/?page_id=181)

You must be logged in to see it. If you have trouble finding your user name or password, contact me at [webmaster@wvmspa.org](mailto:webmaster@wvmspa.org).

The public link for past newsletters may be found on our public webpage [www.wvmspa.org](http://www.wvmspa.org), by hovering over RESOURCES and clicking on NEWSLETTERS. Or you may go to this link: <https://wvmspa.org/newsletters>

## Blog Posts and Emails

Occasionally I write blog posts about new opportunities and association updates. See this link for blog posts. See the BLOG tab on [www.wvmspa.org](http://www.wvmspa.org), or go to <https://wvmspa.org/blog>.

If you do not receive emails when I post a new blog post, please go to your spam email and see if there are emails with WVMSPA in the title and mark them as "not spam." If you don't see them there either, then please let me know ([webmaster@wvmspa.org](mailto:webmaster@wvmspa.org)) so I can make sure your email address is in our subscriber's list. It is important to receive these post notifications. It is my main way to contact you with training opportunities and other website updates.

The reason I prefer this over mass-email directly is that the email-address list is getting long. Eventually I may have to break it up, and that gets complicated and I'm liable to forget to mail a group. So please try to find the blog post emails and read them.

## From the Secretary

Since I am secretary as well as webmaster, I want to add that we realize not everyone likes to look at email or the website. Therefore, we will make a concerted effort to send out more notices in the US Mail. For example, early in the new year, 2023, we will mail a reminder about paying your dues and give information about the May Annual Meeting so that you can plan ahead and add it to your calendar. These mailings will go out to past members as well as current ones. When I do send out a mass email, I will include past members.

# WVMSPA Membership Application 2022



## Purpose

The purpose of the West Virginia Maple Syrup Producers Association is to promote, educate, and research the maple and other tree syrup as well as value-added syrup products throughout West Virginia.

## Membership

Membership is open to persons interested in maple or firms engaged in any phase of producing, processing and/or marketing maple syrup, and/or tree syrups and value-added products of maple syrup and other tree syrups.

**We invite you to join with us as we learn and promote our industry!**

Name \_\_\_\_\_

Farm/sugarhouse name \_\_\_\_\_

Street address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip code \_\_\_\_\_

Phone number \_\_\_\_\_ Cell \_\_\_\_\_

Email address \_\_\_\_\_

## Membership category (check one):

- West Virginia members. (With full voting rights).  
 Associate and Honorary members. This category is for friends from other states who want to join our organization. (Without voting rights)

## Listing preference (check one):

- I give permission for my contact information to be shared with paid members.  
 I do not give my permission to share my contact information with paid members

## Annual dues: \$25, includes:

- Maple Syrup Digest Subscription
- Biannual Newsletter
- Workshops on relevant sugaring topics
- Participation in WV annual maple weekend

## Complete and send application with \$25 check payable to WVMSPA to:

Keith Heasley  
2988 Compressor Station Rd  
Bruceton Mills WV 26525



West Virginia Maple Syrup Association  
2988 Compressor Station Rd  
Bruceton Mills, WV 26525