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### **2018-2019 Officers:**

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 Vice President: Chad Trent  
 Secretary: Rachel Taylor  
 Treasurer: Adam Taylor

## Message From Our President



Hello WVMSPA member. Wow, what a year it has been so far. In my letter in January, I was looking forward to a good 2020 maple syrup season. And thankfully, I believe that the maple syrup production in WV was average, to above average, across the state. However, as we all know, somewhere in the middle of the syrup season this year the COVID-19 pandemic hit the state and country. While West Virginia has controlled the pandemic better than most states, the outbreak has still greatly affected our lives and our maple syrup industry.

Out of an abundance of caution for the COVID-19 virus, many WV producers canceled their second Maple Day. This was certainly a significant hit to the sales of these producers. As the spring progressed and the pandemic quarantining rules/guidelines became a new part of our lives, the association chose to cancel our annual spring meeting in early May, a social gathering that I sorely miss. As we move into summer and the COVID-19 restrictions have been eased, the results have been mixed. Businesses are opening and the economy is picking up a little, but we have recently seen the not unexpected rise in infections. (As I write this, it is not clear how well these flair-ups will be handled or whether restrictions may need to be tightened again.) Not having the pandemic as contained as they would like, the state has recently canceled the state fair, which, as you know, has been a significant outreach and funding opportunity for the association and a significant source of sales for a number of our members.

Even with the disruptions and setbacks from the COVID-19 pandemic, the association and our partners were able to complete several projects to help promote maple syrup production in West Virginia. The MESH company completed a marketing analysis, logo and story card development for expanding the market of “Appalachian Maple Syrup.” This is a critical first step in expanding the market of Appalachian maple syrup beyond the local area, and the logo, story card and stickers from this work can be seen on the association website (<https://wvmspa.org/resources/appalachian-maple-syrup-story-card-seal-and-stickers/>).

Future Generations University and Experience Learning in conjunction with the WVMSPA have developed an Appalachian maple syrup cookbook that not only has some 40 recipes (from many of our members), but also stories of the history of maple syrup in Appalachia. The cookbook is titled: “Appalachian Maple: Recipes and Stories from the Mountains”, and I hope you can add a copy to your maple library when they become available shortly.

In early June, I submitted an official “comment” to the USDA on behalf of the association to support the inclusion of maple syrup in the Coronavirus Food Assistance Program. This program is intended to help compensate agricultural produces for lost income due to the coronavirus pandemic, and I believe that maple syrup should be included in the covered commodities. My letter was supported by a complementary letter from the WV Department of Agriculture.

Last spring, I listed a number of maple research proposals for which I had written letters of support and offered WVMSPA collaboration. I am happy to say that most of these proposals have been funded, although the start of the research has been delayed with the pandemic closures.

The three-year project, “Leveraging Education and Research to Promote Maple Syrup Production across Ohio Pennsylvania and West Virginia” led by Ohio State University, and including Penn State University and Future Generations University has been funded. This project has already sponsored two nights (June 17, 18) of webinar on “Finding New Markets” and the “Business and Finance” of maple syrup. Eight researchers/producers gave presentations on various aspects on the marketing and business aspects of maple syrup, and I heard many very good ideas that I can use. These webinars have been uploaded onto YouTube and can be accessed through: <https://www.future.edu/maple/>.

Similarly, the projects, “Sugarbush Management and Control of Insects and Pathogens” lead by Dr. Jamie Schuler at West Virginia University, and “Increasing Production and Income of U.S. Maple Producers Through the Increased Use of Red Maple as a Crop Tree” led by Dr. Abby van den Berg at the University of Vermont, have both been funded and will start work as the respective university’s systems re-open.

Also, the project, “Re-designing Centrifugal Devices for Maple and Walnut Syrup Clarification” by Dr. Mike Rechlin, Future Generations University, Greg Christian and the Robert C. Byrd Institute at Marshall University has begun testing centrifuges to remove niter from syrup with some promising early results.

Recently in May, I wrote a letter of support for a new project: “Accessing South Atlantic Markets for US Maple Syrup: Educating Consumers and Enhancing Distribution Networks” led by Dr. Mike Rechlin at Future Generations University. I see this proposed project as the next logical step to build on the MESH marketing analysis and branding study, and to help expand the market and promote maple syrup production in West Virginia.

The most recent project on which I am presently working is a fall Maple Day. All of the state associations under the auspices of the North American Maple Syrup Council (NAMSC) are tentatively planning a nation-wide fall maple day (Fall in Love with Maple) in the October 9th to 18th time frame, to help replace lost interaction and sales from the cancelation of spring events. We all understand that the COVID-19 pandemic is presently a moving target, but as a group, we are optimistically hoping for pandemic improvement by the fall. The planning group has essentially decided that August 12th will be the go/no-go decision date for the planning. I recently sent an email to all of the association members presenting this idea of a fall maple day, and I look forward to your feedback.

With the cancelation of the annual spring meeting, much of the association business has been temporarily suspended or put on hold, in particular the election of new officers, board members and event chairs. I, for one, have assumed to continue my present service to the association until such time as the association may hold a formal election. I also have assumed that other officers, board members and event chairs will continue their service in their present position. If my assumption is not correct, please let me know. Going forward, I propose that no

later than October the WVMSAP have a meeting to conduct the association business. If conditions are such that we may have this meeting in person that would be great, but if the COVID-19 pandemic is still limiting group gatherings, then I believe we should hold a virtual meeting and do our best to conduct business remotely. Any comments, thoughts, suggestions on this plan?

I hope your summer and fall are healthy and happy, and please do not hesitate to contact me for any reason.

Sincerely,



Keith A. Heasley  
2019-20+ President, WV Maple Syrup Producers Association  
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## Editor's Note

In this issue of the WVMSPA Newsletter we are featuring two articles that were originally published in **The Maple News**: "*Experiences with 3/16-inch tubing*" by Brandon Daniels, and "*Calcium Bleach Sanitation of 3/16" tubing: Year 2*" by Arthur Krueger. Both articles deal with an issue any of us using 3/16 - inch tubing should be following—That is the tendency of the tubing to plug at the fittings. Researchers at Cornell and The Proctor Maple Center have noted this plugging and a dramatic decrease in sap volume with 3/16 that is just a couple of years old. Both Brandon and Arthur have developed strategies that avoid these problems.



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# Calcium Bleach Sanitation of 3/16" Tubing: Year 2

By Arthur Krueger, P.E.  
Reprinted with permission from The Maple News



Sugar Maker Arthur Krueger with sap lines

My family's sugarhouse finally made some significant breakthroughs. We managed to completely empty our woodshed of 30 cords and needed to scrounge several cords more to finish up. Certainly a measure of success since, after all, emptying the woodshed is the real objective.

Additionally, we've had our best year ever reversing the disappointing trend of the past several years. We've even had to sell over 5000 gallons of sap to a neighbor as we were not able to boil it down fast enough.

## WHAT WE DID

We bleached our entire network with calcium bleach at a concentration of 400 ppm (a 1 pound packet of Zappit to 200 gallons of water) as we detapped last spring. We pumped this up from the bottom of the system. We made sure each drop was filled with bleach solution, then plugged it off.

The calcium bleach degrades to lime over the summer. We rinsed most of it in the fall and let a very small amount of sap run on the ground this spring to complete the cleaning. I do believe that leaving the solution in all summer deters squirrels, as the resulting lime solution has a bitter taste. The only squirrel damage we had before the start of the season was in the new 5/16" drops.

We also changed drops and tees and spouts on all of the lines feeding one of our tanks. We used 5/16" drops with Zap-Bac silver spouts, and D&G 5/16" x 3/16" x 3/16" tees. (Note that the studs on these tees did not fit the silver spouts. It is not possible to plug these spouts with these tees.) We only did this on the sugar maples. The 5% or so of red maples in this section were left with old spouts, the theory being it might be beneficial to have these quit early by taking advantage of bacterial growth.

We also installed 2 completely new lines, one with new 3/16" drops with D&G spouts and one with 5/16" drops with silver spouts as a check.

## THE RESULTS

The first sap of the season was the cleanest I've ever seen, clear as our spring water. It made some very nice syrup. Clogging was nonexistent in the lines with the 3/16" drops. We experienced severe clogging in 4 of the 21 lines with the 5/16" drops and silver spouts. This did not occur until late March, a month after the sap started flowing. It only occurred in the lower sections of the lines, several hundred feet below the lowest drop. It was not associated with joints but occurred in the tubing itself. I have no idea why this happened. I believe that in the

previous years, clogging was a long and persistent problem in the network.

Overall, we got 0.3 gallon of syrup per tap. This suggests that there is considerable room for future improvement, but it is about twice the rate we produced in the previous 2 years.

For the first month all parts of the bush produced very well. We intended to keep track of what the various parts of the system did, but sap flow was so intense that we soon lost track - a veritable sapanami. We were averaging about 2000 gallons from 2400 taps each day the sap flowed. In the last week of the season the sap flow slowed enough so that we could see some differences that were not present in the beginning of the season. On the last day that we had our network up we got excellent flow in both of the new lines. We also got excellent flow in some but not all of the 5/16" drops with the silver spouts, but sap flow had diminished considerably in the rest of the system. Over the last 3 days of flow we got 300 gallons from the section with silver spouts (21% of the bush) and 300 gallons from the remaining 79%. If the rest of the bush did as well as the silver spouts, our total sap production for that period would have been about 1400 gallons instead of 600, and we might have continued collecting sap a little longer. We would have probably gotten 50 gallons more of syrup during the last week of the season.

In previous years I have tried many replacement strategies in my network. They were all a waste of time and money. This trial with the 5/16" drops and silver spouts is the first time any one of them has worked. I don't believe this would have worked though without bleaching on the 3/16" laterals.

In my bleaching technique on the 3/16" drops I was able to bleach the drops and the inside of the spouts but was not able to bleach the outside of the spouts. I think this led to the dwindling of the production in the last week in those areas. The silver spouts being both new and bacterial static stopped this. I believe if I can find a way to bleach the outside of the spouts I might achieve good results throughout, as bleaching for at least 30 minutes has been found to be very effective by both Proctor and Cornell. The science is very strong here.

#### NEXT YEAR

One way to proceed would be to do the entire bush, excepting the red maples, with 5/16" drops and silver spouts. But it takes \$1 in material and about \$1.50 in labor per drop to do this, and there are about 1700 more drops to do. The math is quite discouraging. If I was going to do a completely new installation though, I certainly would consider this.

Another way to proceed would be to try new 3/16" silver spouts on my existing 3/16" drops. This is much cheaper and not very labor intensive.

A third way would be to do a better job of bleaching the outside of the spouts. I will use the Stericaps used by Canadians in their isopropyl alcohol cleaning system to do this. (Of course I'm using bleach instead of alcohol.) This is the cheapest in both money and labor. I have ordered 2200 from LaPierre.

Bleaching is not very difficult if it is done while detapping and if you are well organized. It certainly is a lot easier than changing drops! I have made 2 youtube videos describing this. I had hoped to have a workshop here on it this spring but with the coronavirus this is now impossible; maybe next year.

One issue I have found is that we can't tell how effective our cleaning technique has been until the following year. We thought we might be able to use a luminometer to rectify this, but conversations with Abby Vandenberg at Proctor show that this will probably not work.

Both Proctor Research Center and Cornell did the original research on using bleach in tubing sanitation and have been very helpful. I am indebted to both of these fine institutions for getting me started on this journey.

## **Experiences with 3/16 Inch Tubing**

By Brandon Daniels

Reprinted with permission from The Maple News

There has been much discussion and some research given to 3/16" and the reduction in flows that most see after the first season. The information in this article will not be referred to as research, but it will be presented to help maximize your production on 3/16" tubing in seasons two through ten. Before we jump into that, I will provide a little more information on our facilities and my background. I started producing maple syrup over thirty years ago with a 2x3 stainless pan in the back yard and ten taps as a young teenager. This has grown to a modern state of the art operation. I am running 2,400 taps +/- 10 on 3/16" tubing in five different areas. These taps run into round bottom stainless tanks produced for maple sap. In all of the areas we have taps, they are within approximately 1.5 miles of each other. In all five of these locations, there are taps on slopes that face more than one direction and on the 2,400 taps, we have taps that face every direction on the compass. The spouts used have been three different types of spouts; clear (polycarbonate) seasonal, white nylon spouts and anti-microbial with mostly clear seasonal polycarbonate; we are replacing spouts before every season.

Nearly all of the 3/16" tubing that I will be referring to was installed in 2014 through 2017. The exceptions to this would be repairs due to damage or some rerouting of 3/16" lateral lines that may have required more tubing to extend. The five areas I will refer to are all on natural vacuum without the aid of any vacuum pump. One area, that has 325 taps on it and has been tapped for over thirty years, had the drop lines replaced on them in just before the 2019 season. The rest of the 3/16" lateral lines, the drops are three to five years old with the exceptions of repairs. This area of 325 taps, that the drop lines were replaced in 2018, are 5/16" drop lines, the remainder of nearly 2,100 taps with three to five year old drop lines with 3/16" drop lines.

All of the 3/16" lateral lines terminate into mainline with none of the lateral lines running directly to a collection tank. Ideally, there should 30' of drop after the bottom tap on a lateral. Most of the mainlines are in the bottoms of long hollows or valleys with minimal slope so the lateral lines are terminated into the mainline regardless of how much drop is achieved after the last tap. 100% of the tubing is semi-rigid from CDL and the drops are either CDL semi-rigid or flex which will be addressed in more detail later. The mainline is the same age as the lateral lines with the exception of one of the areas that has 330 taps on it. This was one of the initial areas 3/16" was installed in 2014 and the mainline is a few years older.

The two main things I want to address is loss of production and plugging in 3/16" tubing. The research points to a large loss of production after the first season. Most think it will continue to drop off some every year until the tubing is replaced. I have not experienced the loss of production that research suggests we should and the plugging has been minimal. In fact, the 2019 season was our record production per tap and this was surpassed by over 18% in 2020. Over the last three years I have discussed several times with Tim Wilmot, retired maple specialist from UVM Proctor Maple Research Center, why this occurs. Tim is the original developer of 3/16" tubing and presented it to the maple industry. We have discussed why we think this occurs and I'll address some of the reasons that I believe what has prevented this from occurring on my properties. Yes, I do see some plugging and usually find

about three to four per year in 15 to 20 miles of 3/16" tubing. In 2020, I only found three areas of plugging and they were all in the 330 tap section that was installed in 2014. Two of the three areas that were plugged were in a section of tubing that was flat in the middle of the lateral lines and the tank was moved before the 2020 season. When I rerouted three of these lines to get more slope, the areas of plugging inside the tubing were not seen until well after they were tapped. The other area of plugging was a result of wood chips that had blocked off at a fitting.

Now I want to address why I think most are seeing a reduction in flow and production after the first year. I strive to have all of our taps pulled and lines flushed in five to ten days after the last boil. This seems to be where many fail, when season is over, most are ready to move onto other things and pulling taps is not high on the list. Over the last six years, I have tried different treatments on pulling and flushing taps. What I have settled on in 2019, and again in 2020 is simple and easy. I go to the top of every lateral line and pull the top tap which is usually still under vacuum and flush one to two ounces of distilled water through the lateral line. The vacuum will pull it quickly down the lateral line and help flush out yeast and residue. We then proceed to pull the taps over the next few days and let the drops hang downward and dry for three to six weeks. As taps are pulled, lateral lines are pushed upward to above head height and this seems to drastically reduce damage to the tubing during the off season. Even though the flushing is easy, it still takes extra time. Going back a second time to cap off the spouts also creates even more work, but the tubing that was installed in 2014 still looks about as clean as tubing that would have been through one season.

Back in fall of 2017, I replaced a lot of the drops to help "maximize" production. These were all replaced with a flex 3/16" tubing which is more translucent and also easier to work with. The biggest disadvantage I see to the flex tubing is that it seems to get dirtier easier and retains mold and yeast worse than semi-rigid tubing. I have not had any issues with semi rigid pulling off of fittings and even the original 3/16" fittings that only had one barb on each side of the connection. Before the 2019 season, the drops were changed in the section with 325 taps with new 5/16" drops except the top tap which was 3/16". The most interesting thing I saw from the new 5/16" drops was that they produced less than the older 3/16" drops on the other four sections and less than what they did the prior three years with 3/16" drops which also goes against what research suggests. I did not see any higher yields during the 2020 season with these one year old 5/16" drops versus the older 3/16" drops.

In a normal season, I usually see syrup yields of around .25 gpt with average sap sugar content of 1.1 to 1.2 for the season. In 2019, this increased to .276 gpt and in 2020 to .33 gpt. Obviously, there are many factors that come into play with production and you can never duplicate the same conditions from one year to any other year. The weather was somewhat better in 2019 and 2020 which also helps production. In 2020, the sugar was a little higher than the past three years which contributes to better numbers. You are welcome to draw your own conclusion from all the information I have presented, but I will give you a good illustration to further reinforce everything.

In January 2018, I had a customer that installed approximately 700 taps on 3/16". They did not tap until nearly half way through the 2018 season and still made over 1/3 gpt. In 2019, they installed approximately 300 more taps prior to and during the first part of the 2019 season. During the season, he called me in distress because he was getting more sap out of the new tubing on 300 taps versus the one year old tubing that had 700 taps. I questioned him if he had been to the woods to check for leaks and he said he did not have time. A couple of weeks later he called again, really upset that he was not getting much sap out of the 1 year old tubing system even with new spouts. We talked in detail and he finally admitted he did not pull the spouts out from the prior season until the start of the current season. I explained to him that he probably had a lot of leaks and likely a lot of plugged lines. He agreed to go check out his lines even though the season was winding down. He informed me a couple of days later that he had found quite a bit of damage and a lot of plugged lines. After fixing the problems and the plugged lines, his sap flow increased dramatically and he pulled all of his taps and flushed his laterals

shortly after the season ended in 2019 and he only made .23 gpt. During the 2020 season, he made nearly .5 gpt without adding any new taps on two and three year old tubing even though nearly everyone reported higher sap flows in 2019 than in 2020. The only difference, he pulled his spouts out quickly and flushed the lines. No drops were changed, just new polycarbonate spouts were replaced.

While 3/16" tubing is not for everyone and there are still things we continue to learn, I think sanitation/cleanliness and going the extra mile is extremely important to maximize yields. Once season ends, most are not eagerly anticipating pulling taps. The additional time and labor of flushing lines and going back a second time to cap off the taps adds up. I would rather spend some extra time after season when things have slowed down to increase production. I know this all refers to 100% natural vacuum and I am certain that a hybrid system will produce even more sap. Nearly all of my taps are remote and 100% of the sap is hauled and none of it runs to the sugarhouse.

Up until the 2019 season, every drop was flushed with permeate or distilled water except in 2015 when vinegar and water was used. It is more labor to flush every drop as they are pulled versus flushing the top tap on each 3/16" lateral line. Discussions that I have had with Tim Wilmot the last three years, we agree that good sanitation and cleaning of 3/16" tubing may be the key in preventing the loss in production. Unfortunately, due to his retirement, Tim Wilmot did not have the opportunity to do any research or testing on cleaning and sanitation. The tubing seemed to be the cleanest this year with the additional time to air dry and I plan to continue that in the future. I also think good slope is very important on natural vacuum on 3/16" and not as important with a hybrid system. Like any good vacuum system, maintenance and fixing leaks is huge in a good 3/16" system. As we start to make plans for the 2021 season and look towards summer, do not forget the old saying: "An ounce of prevention is worth a pound of cure!"

## **Cindy Martel Retires from WVDA**

By Mike Rechlin

Cindy Martel, the "West Virginia's Maple Queen," retired this past year from her 25 years of service at the West Virginia Department of Agriculture. Hailing from New Hampshire, and growing up in maple country, Cindy took a special interest in the state's emerging maple industry. She was at the first meeting of the West Virginia Maple Syrup Producers Association, provided valuable guidance to our growing organization, worked with us on Specialty Crop Block Grants and our first USDA Acer Access grant. Cindy was instrumental in organizing the Southern Syrup Research Symposium, served pancakes smothered in WV Maple syrup to legislators to promote our cause, and made sure maple products were front and center at many a State Fair.

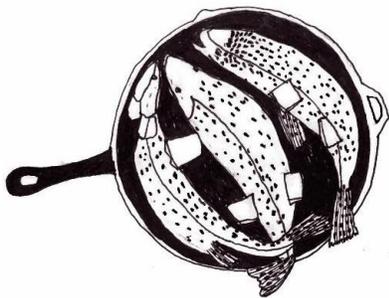
Moving to Laramie Wyoming for family reasons it did not take Cindy long to reconnect to her maple and agriculture roots. Her first email to me after arriving was a request for me to send spouts. Cindy found a guy at the University tapping Manitoba Maple. She is happily settling into her new life in town and on a family horse ranch. And, although she misses her beloved "Bridge Day" and all her WVDA and WVMSPA friends, her knowledge of food safety and marketing are being discovered and drawn on by her new Wyoming agricultural community.

We all miss her in "West by God Virginia" and look forward to getting a "Howdy Partner" greeting on our next trip to the "Cowboy State" of Wyoming.

# Appalachian Maple cookbook coming out later this year

By Jeff Debellis

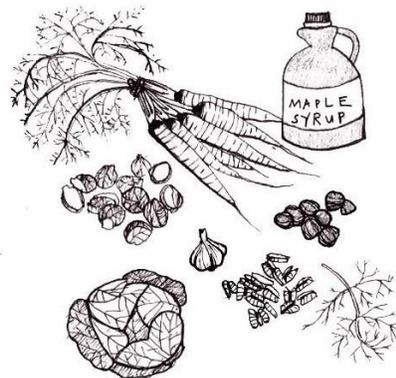
Pear and maple pie. Maple glazed fried chicken. Maple venison BBQ. These are a few of the maple recipes coming out of the kitchens of Appalachia. *Appalachian Maple: Recipes & Stories from the Mountains*, features more than 30 of these recipes, along with stories of sugaring in the Central Appalachian Mountains.



Though not as widely known about as in other parts of North America, people have been collecting and processing sap in Appalachia for hundreds of years. Some of the old-timers still recall using horses to haul sleds loaded with hogsheads of sap through the woods. Not because tourists thought it was cute, but because tractors and trucks were slow to arrive in the rugged and isolated mountains. Technologies come and go, but rural families hold fast to traditions. *Appalachian Maple* includes recollections from producers throughout the region, such as Josh Shinaberry, whose family has been making syrup near Cass, WV, for at least five generations.

Appalachia's syrup industry is not stuck in the past. The crop has enjoyed a renaissance here in the last several years, as cooks find ways to blend venerated traditions with new ideas. Producers, chefs, and bartenders contributed all of the recipes in this collection.

There are breakfast foods, meats, fish, vegetables, salads, cocktails, and desserts. It includes the winning recipes from last year's Savory Maple Contest at the WV State Fair, recipes from The Greenbrier, The Forks Inn, Frostmore Farm, and dozens of others. Some of the recipes are simple – as few as two ingredients. Others, like the maple pecan crêm brûlée, are more advanced. One of the recipes even borders on the supernatural. "One of our bakers literally dreamed about this cheesecake one night while sleeping," according to White Grass Café owner Laurie Little. "She came to work the next day and tried it. It turned out to be an awesome recipe and a favorite at the café!"



Original illustrations accompany the recipes and stories. Future Generations University, Experience Learning, and the WV Maple Producers Association have teamed up to produce the 100 page, spiral-bound book. The organizations will reinvest the proceeds into maple education and research in Central Appalachia. *Appalachian Maple* will be available beginning later this year through the bookstore at [www.future.edu](http://www.future.edu).

## Syrup Making Handbook Now Available

By Karen Milnes

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

With generous support from the Benedum Foundation, Future Generations University has created an online handbook covering the basics of maple syrup-making from woodlot

evaluations to filtering. Sift through additional resources on the first few pages, and continue on to read more in depth on all sorts of syrup processing topics. This flip book can be downloaded and printed if you want to keep it on hand in your sugar shack. Check back as more pages are added and please send feedback or suggestions to [syrup@future.edu](mailto:syrup@future.edu) The handbook is also housed on the WVMSPA website at <https://wvmspa.org/useful-links/>.


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Filtering

**THE BASICS**  
Syrup that will be sold needs to be thoroughly filtered. Just like off-flavors in syrups, sediment in the bottom of your bottle is not a food safety issue, but a food quality issue. If your syrup is merely for home use, you might choose to forgo the sometimes difficult task of filtering. Niter, or the sediment that accumulates on the bottom of your bottle, is minerals that exist in the sap that become concentrated and then fall out of solution as the syrup cools. It is edible, but not palatable. Sometimes called sugar sand, it is primarily composed of calcium and really does feel like sand between your teeth. Every time you reheat syrup and let it cool, more niter will fall out of solution. So, for clear syrup, filter each time it is heated and be sure the syrup is the correct density when you start the filtering process.

Hot syrup filters more easily (185-195 degrees F), the amount of syrup that passes through a filter decreases dramatically as time wears on (and as syrup cools)  
For a lot of great info on filtration, go to <https://www.youtube.com/watch?v=HNqjFR8k89A>

**CONE OR FLAT FILTERS**  
Cone filters are the most basic form of filtration. They are often made of wood or nylon and used with a series of cheaper "pre-filters". The pre-filters are removed as they clog up with niter and syrup is transferred to the next prefilter. They are good for small operations, and able to filter about 1 to 3 gallons of syrup before getting clogged and needing rinsed. These filters work best when wet. Only rinse with hot water—do not use detergents or soaps, and do not wring them out, but hang them straight to dry thoroughly before storage.




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**PLATE FILTER PRESS**  
these use filter paper and "filter-aid", or diatomaceous earth to filter syrup under pressure.

The filter-aid traps even small particles of sugar sand and minerals, and the filter paper keeps the filter aid out of the syrup. The metals plates slide out and filter paper is placed in between. Hot syrup is mixed with a filter-aid, called diatomaceous earth and pumped into the press until it fills up. The diatomaceous earth holds onto even small particles of sugar sand and the filter paper prevents the diatomaceous earth from passing through. The remaining hot syrup is pumped through the press under pressure. These plate filters are capable of filtering much more syrup than cone filters before clogging up, and come in many shapes and sizes. The one to the right has a hand pump, while others use electric pumps. Use only food grade diatomaceous earth.



**CANISTER FILTER**  
These work on the same basic principals as a plate filter press. They generally have fewer parts to contend with but also have less surface area, and can clog up more readily, making them lower-capacity.



**Future.Edu**

3D FlipBook 44 45

## The West Virginia Mobile Sugar Shack Hit the Road

By Kate Fotos

Over the past year, Fred Hervey of Family Roots Farm and Gary Rush have been working to transform a trailer into a mobile sugar shack to help raise awareness about the maple syrup industry in West Virginia. From installing a three basin sink, with water heater, sap tank and head tank, evaporator, and counter, Hervey and Rush have created a fully functional sugar shack. Rolling down the road, it looks more like a shed on wheels, but upon arrival at a fair or festival, the shutters swing open and the cupola pops up, revealing a beautiful sugar shack.



Cathy and Fred Hervey, Kate Fotos, and Gary Rush holding next generation sugar maker Grady in the Mobile sugar shack

In late June, the trailer was finally ready to hand off to Experience Learning for the final touches. Experience Learning, an education nonprofit, goal is to create educational materials for the trailer, which will add to the experience of the sugar shack at fairs and festivals. The educational materials will focus on the science behind maple syrup along with the production process. Experience Learning's hope is to raise awareness of the maple syrup industry in West Virginia and provide a hands on learning experience for adults and children. With social distancing guide lines due to COVID-19, Experience Learning hopes to roll out the mobile sugar shack for the first time this fall. However, if fairs and festivals cancel, the mobile sugar shack will roll out in the spring of 2021.

The mobile sugar shack has been made possible by Family Roots Farm, Experience Learning, Future Generations University, Little Kanawha Resource Conservation and Development Council, and the WVDA.

Thank you as well to the West Virginia Maple Syrup Producers Association, for their support and help trough out the process. With final touches happening, Experience Learning team as well as everyone else who has worked on the Mobile Sugar Shack is excited for its debut!

## Odds and Ends

By Mike Rechlin

With virtually all maple events cancelled this fall, and that includes the planned second Southern Syrup Research Symposium, we all have to work to upgrade our skills and keep up with the evolving maple field. The below is a listing, distributed by Dr. Tim Perkins out of the Proctor Maple Research Center, of activities and programs from Vermont. (These are also available from the WVMSPA website Useful Links, <https://wvmspa.org/useful-links/>.)

**UVM PMRC homepage** [www.uvm.edu/pmrc](http://www.uvm.edu/pmrc) Brief description of PMRC facilities and research

**UVM Extension Maple homepage** [www.uvm.edu/extension/agriculture/maple](http://www.uvm.edu/extension/agriculture/maple) Maple Extension resources

**UVM PMRC Educational Videos** [www.youtube.com/c/UVMProctorMapleResearchCenter/playlists](https://www.youtube.com/c/UVMProctorMapleResearchCenter/playlists) A series of research and educational videos focusing on high yield maple sap production

**Maple Research** [www.MapleResearch.org](http://www.MapleResearch.org) NAMSC searchable database of recent (20+ yrs) maple research and information

**Vermont Maple Minute** [www.uvm.edu/extension/agriculture/vermont-maple-minute-0](http://www.uvm.edu/extension/agriculture/vermont-maple-minute-0) Brief podcasts of topics relating to maple trees and maple syrup production

**Vermont Maple Bulletin** <https://vermontmaplebulletin.wordpress.com/> Continuous update of the Vermont maple season (updated throughout each sugaring season)

**Maple Business** [https://blog.uvm.edu/farmvia/?page\\_id=394](https://blog.uvm.edu/farmvia/?page_id=394) at UVM Extension Ag Business Programs with access to reports, outreach publications, recent presentations and maple benchmarking enrollment information

**Maple Manager** [www.uvm.edu/extension/agriculture/maple/bizmodules](http://www.uvm.edu/extension/agriculture/maple/bizmodules) a growing body of business planning tools, financial calculators, legal templates and forestry resources

### UVM Extension Maple

**Development** [www.uvm.edu/extension/agriculture/maple/bizmodules/upcoming-events](http://www.uvm.edu/extension/agriculture/maple/bizmodules/upcoming-events) Online seminars starting in August 2020. Go to the website to see the calendar and register.

Looking for new markets? This just came in to the Maple Sugaring in Central Appalachia Facebook site:

# Maple Sugaring in Central Appalachia

🌐 Public group · 69 members



About Discussion Mentorship Announcements Rooms



**Matthew David Thompson** shared a link.

10h · 🌐



Hi! I'm Matthew with the West Virginia Food & Farm Coalition. We just launched [farmfreshwv.com](http://farmfreshwv.com) 2.0, the former farmers market locator now includes farms, breweries, restaurants that source local, agritourism, and other farm-based businesses. I have enjoyed being a part of this group and wanted to share this free opportunity with sugar shacks in West Virginia. Check it out and add your listing today! 😊

## Accessing New Markets in this Time of Uncertainty

With summer fairs, festivals, and outdoor markets in question during the pandemic, this may be a good time to re-examine your business model now that bulk price for syrup remains anything but encouraging. Syrup makers need to be continually looking for immediate and long-range market opportunities and strategies.

### Watch free webinars for maple producers

- [Finding New Markets](#)
- [Business & Finances](#)



Many of you participated in the Ohio, Pen State, Future Generations webinar on maple marketing (For those who did not the presentations can be accessed through the Future Generations website, [www.future.edu/maple](http://www.future.edu/maple)). With the cancellation of the second **Southern Syrup Research Symposium**, our ACER funded programs are planning more online programs on topics specific to the southern tier of maple producing states. Stay tuned for specifics coming to the WVMSPA membership through email.

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West Virginia Maple Syrup Producers Association  
**Membership Application 2019** (revised 10/2018)

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: \_\_\_\_\_

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)

\_\_\_\_\_ 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

Address:

Phone number:

cell:

Email address:

**Annual dues: \$25** includes

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

Complete application and submit with your annual dues of \$25 by May 2, 2021  
(make checks payable to WVMSPA)

TO: Keith Heasley, 2988 Compressor Station Rd Bruceton Mills, WV 26525

West Virginia Maple Syrup Association  
100 530 Greenbank Road  
Arborvale, WV 24915