West Virginia Maple Syrup

Producers Association Newsletter

September 2016	Se	ote	mb	er	20	16
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"Straight from the Tree" - A message from our president.

Greeting to my fellow syrup makers in the great state of West Virginia and our friends in Highland County, Virginia.

have an expression "Any day in the woods is a good day." If you are a syrup maker you are



a tree farmer, and your woods is your farm. A well cared for woods will provide Maple Syrup, timber, firewood and a host of other woods related products, providing income for you and your family.

In our rapidly changing genetic engineering world, (i.e. purple poodles and winged turtles) maple syrup is one of our last truly pure food items, and if I have anything to say about it, that is the way it will stay in my operation until my passing. Some may embrace the GMO road; I do not.

One of the marvelous aspects of maple syrup production is the almost zero impact on the woods. In Geauga County Ohio we had a 600 tap operation on 10 acres and my only piece of equipment was a 12 horse cub-cadet with ag. tires and a single axel trailer.

With the development of tubing, the heavy tractors pulling sap tanks in mud season has disappeared and the ruts and root damage is no more! Even with a large operation one only needs a 4 wheeler or a 2-person mule to work the woods in syrup time; when the ground is always wet and soft and easily damaged.

My final thought todayTake good care of your woods and it will take good care of you and your family.

Respectfully,

Edward B. Howell (Ed)

President WVMSPA

Reminder: 2017 membership of \$25 is due by Dec. 31st.

Issue 1

Marketing — Marketing — Marketing

We all like making maple syrup, at least for the first S or so weeks of the season. It's fun to get out into the woods, clean all the equipment, and see that first-of-the-season sap run into our collection tanks. There's the sweet smell of steam rising from the evaporator, and there's that first draw-off of pure West Virginia maple syrup. Life couldn't be better.

BUT. Making maple syrup is one thing, selling it is another. And, unless you are doing it all just for fun, selling is probably the most important step in the process. On June 4th, at Beander's restaurant in Elkins, the WVMSPA hosted a day-long session on marketing maple.. The session was led by the Great Northern Guru of Maple Marketing, Tom McCrumm, from South Face Farm in Massachusetts. Tom began his love for maple in Vermont, but spent some of his early sugaring years right here in Pendleton County, WV. After moving to Massachusetts, maple syrup moved from being his passion to being his livelihood. Tom came "back home" to WV to let us in on some of the marketing secrets he learned along the way.

Tom's business at South Face Farm focuses on sugarhouse to customer and sugarhouse to retail sales. He let us know right at the start that our competition is not

other maple syrup producers; but Vermont Maid, Mrs. Butterworth's, and other brands of Maple (flavored) Syrup that market a mixture of corn syrup and chemicals with a maple leaf or sap bucket on their labels. He let us know that trends in the food market are moving our direction. We live in the age of "Locally Grown" "Farm to Table" "Organic" and "100% Pure." That's us, as producers of Maple Syrup and Pure Maple Products, and it's our job to let our customers know what we've got and how we make it.

Websites, signage, open houses and school groups; it's important to get people into your sugarhouse, and not let them leave without passing close to your cash register. The goal is to have everyone who visits take home something to share, and to leave not only



WVMSPA Vice-President Mark Bowers with seminar leader Tom McCrumm

cash, but also their contact information. Marketing maple syrup is more than selling a product, its selling an experience and making a friend. It's personal connections that keep people coming back for more. One of Tom's secrets is that everyone who comes pays him back by building his mailing list. And what does he do with that list? Well, there is the pre-Christmas mailing letting his customers know it's

Marketing — Marketing Continued

time to fill stockings with maple candies, or send a quart to aunt Mable. Then there's the spring newsletter, letting your customers know what's been happening on the farm, and the dates of this season's open house. Tom stressed that you're building a relationship with your customers. Tom began the workshop by reminding us that all we have in that bottle is sugar with a little flavor. It's what else we put into the marketing of maple syrup that makes it worth the price.

The Good News is "They Don't Bite." In Fact, "They Don't Even Sting"

Who we are referring to in this headline are the folks who will soon be contacting you about doing a "Facilities Review" of your sugar camp. On May 25th Mike Rechlin, Brandon Daniels, and Cindy Martel held a training session for those would be

inspectors at Daniels Maple Syrup in Dawson WV.

Over the past year many of us have heard of, and some of you have experienced, the regulatory "turf battles" in Charleston over who is responsible for food safety concerns in our growing West Virginia maple industry. We do produce and sell a food product, and the public deserves to be assured that the product we produce is of a high quality and safe to eat. Well, thanks to some of our bureaucratic friends, the Department of Agriculture won that battle, and is initiating a facilities review program.



Brandon Daniels receiving high marks from Andrew Kenney in his Facilities

Brandon and I had the pleasure of educating the first batch of inspectors on the wonders of maple and the potential of our West Virginia maple syrup producing industry. The folks who will be calling on you knew little about tubing, RO technology or evaporators, but they knew a whole lot about the production of really sweet agricultural products. They are mostly State Bee inspectors. That's right, you can talk to them about refractometers or free water activity, and they will understand exactly why properly packaged 66° Brix maple syrup is a perfectly safe food product. In fact, that number 66° Brix is what Cindy refers to as the critical control point in the review process.

There are others, and we all went over a sugarhouse checklist that was developed, shall we say, with a lot of help from the Vermont State checklist. Don't store pesticides in your evaporator room, you will need access to toilet facilities and {talk

The Good News continued

to Brandon about a really neat way of getting rid of them), and unless you want to advertise you syrup as "Flint Michigan's finest" it's important to keep lead levels be-

low 250ppb.



Cindy Martel with Brandon Daniels and Andrew Kenney working through the facilities review checklist

As part of the training Cindy Martel led the group through the checklist as we conducted a review of Brandon's operation. The watchword was that these folks are there to work with producers to assure the safety of our pure West Virginia maple syrup. Needless to say, Daniels Maple Syrup passed the facilities review with flying colors, and Brandon can now lay claim to the honor of being West Virginia's first certified maple syrup producer.

Who's next?

Daniels Maple Products Serving All of WV & VA



We carry a large selection of WV Jugs, 3/16" & 5/16" tubing, mainline, mainline fittings and many other in-stock supplies. We ship anywhere and can order any size reverse osmosis, evaporator, tank or other manufactured items. Please give us the opportunity to serve you.

1747 Morris Branch Road, Dawson, WV 25976 (304) 575-7266 wvmapler@suddenlink.net

WVMSPA Maple Syrup Equipment Sales Facebook Page

https://www.facebook.com/WV-Maple-Syrup-Equipment-877283592381895/

Contact Brandon Daniels to list any equipment for sale.



The Season of 2016. What Happened?

The 2016 sap season was the worst anyone can remember. Or to quote one of our producers, "if this happens again next year, I'm out of business." The 2016 sap season was the best on record. Or to quote Mike Ferrell, "It was the most maple syrup ever produced in the world..." This article tries to take a look at what happened and why.

The Heat Wave

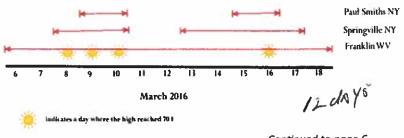
West Virginia (Franklin): the daytime temperature reached 66 °F on March 6th. It did not drop to below freezing again until March 18th, thirteen days of above freezing temperatures. March 9, 10 and 16 posted highs in the mid 70's. That's head to the beach weather in what should have been the height of the sap season.

2016 was the strongest El Nino event in recorded history. An El Nino is caused by above normal warming of surface waters in the Pacific Ocean. This drives a shift in weather patterns across the USA, leading to warmer than normal temperatures on the east coast. This was a warm winter, even before the sap was supposed to flow. For those of us in West Virginia and Highland County Virginia, by the second weekend of March our sap season was over.

Western New York (Springville): it warmed up on March 8th and stayed warm for 3 days before temperatures dropped back to blow freezing. Then it warmed again on March 13th and stayed above freezing for 5 days before a freeze. That spelled the end of the season for most, **but not all**, of the syrup producers in the region, as well as most of those in Pennsylvania and Ohio.

Upstate New York (Paul Smith's): the temperatures rose to above freezing on March 9th and stayed there through the 10th. Again on March 15th and 16th there was no freeze. Those Northern tier producers in New York, Vermont, New Hampshire and Quebec were just gearing up for a record-breaking season. It was not until Mid-April that their sap season ended.

Figure 1. The Heat Wave of 2016



Continued to page 6

The Season of 2016

Sketches of the Season

West Virginia (13 days without a freeze; 3 days in the 70's)

Frostmore Farm: Rachel and Adam Taylor say that they had a poor syrup season. That being said, with a production of 0.26 gal syrup/tap they would be the envy of many an area producer. They collected sap through to their last boil on March 12th. Put into context, they were able to keep their operation going through the first 7 days of the "heat wave of 2016." Their secret is that they ran their vacuum pumps day and night during this period. Rachel said that sap continued to run after their last boil, but that the red maples they tapped had broken bud, giving the sap an off flavor, and the sap coming in was milky from the rapid microbial growth in their lines.

Dry Fork Maple Works, Bowers Maple and Mark Kimbell: Unfortunately these three producers had a season that was nothing short of dismal. John Dalen produced about third of his normal crop. Mark Kimbell came in at 0.012 gal/tap and Mark Bowers with 0.052 gal/tap. It's hardly worth getting out of bed for yields like that. Each of these operations had problems during earlier sap runs. However, in a normal year they would have expected to recover. The Dry Fork, in fact, with its advantage of elevation, had an extended series of freeze- thaw cycles following the heat wave, which should have provided plenty of sap. The problem, of course, was that the tap holes had substantially dried up by then.

Daniels Maple: Brandon's trees are all on natural vacuum, 3/16-inch tubing. He averaged just over 15 gallons of sap/tap and made 60% of his normal crop. Given the weather conditions, this is really good in a really bad year. Brandon's season lasted 19 days. He said he had heavy sap runs prior to the heat wave, and that the sap flowed until March 9th. The last three years his sap ran up to the first of April.

Western New York (3 days followed by 5 days without a freeze)

In Western New York the 5-day heat wave shut down most producers. I visited Fairbanks Maple near Fredonia NY and Shadow Hill Farm out of Rochester just before the March 19th NY Maple Weekend, and they were planning on boiling water for the visitors. Steve Childs from Cornell said that most area producers were done by that time. EXCEPT, Wendell's Maple. Marty and Nick had kept their vacuum pumps on 24/7 during the heat wave. I talked to them the first week of April and they said that they thought they were the only producer in Erie County still getting sap runs.

Upstate New York (2 days then 3 days without a freeze)

In the northern tier of NY, VT, NH and up into Canada, the season could not have been better. Commenting on the season, Mike Ferrell stated, "It was the most maple syrup ever produced in the world given that Quebec had such a huge crop." Mike's operation, the Cornell University - Uihlein Sugar Maple Field Station, averaged 0.4 gallons of syrup

The Season of 2016 continued

per tap. Nearby Paul Smith's College produced .49 gallons/tap. Just down the road in Tupper Lake the Adirondack Wild Center runs a community sugarbush all on bucket. Their production went from 110 gallons of syrup last year to 200 gallons this year.



Figure 2. Sap flowing into Paul Smith's College collection tank, April 16th.

What Happens with the Trees?

We all know that the sap flows during warm days. What also happens during those warm days is that microbes grow in the tap holes, the sap, the buckets and the sap lines. Cool temperatures, and especially freezing nights slow down that microbial growth. The warmer it gets the faster the "bugs" grow. A 70 degree day is like taking a glass of milk out of your refrigerator and setting it in the sun, it does not take long for it to spoil.

As the microbes colonizing your tap holes gain in strength they start invading the injured cells you cut open when you drilled the hole. From injured cells they move into live cells, and if left unchecked cause decay that could kill the tree. Trees, however, are not passive bystanders in this process. Trees actively work to isolate the invading microbes. You can see this if you have a board cut from a tree that had been tapped. The wood surrounding the tap hole is stained. If you look closely you will see a dark line at the edge of the staining. That's the battle line in this tree vs. microbe fight. The good news is that sugar maple is very good at winning this battle and "walling off" the staining and decay. Unfortunately, the growth of the microbial mat in the hole and the response of the tree to the invasion, combine to "dry up" the sap flow. The longer it stays warm and the hotter it gets, the faster the holes dry up

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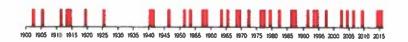
The Season of 2016

Referring back to the season sketches you can see that Daniels Maple made it 4 days into the heat wave. Frostmore Farm made it 7 days by continuously running their vacuum pumps to keep the tap holes clean. Looking at Western New York, Wendell's Maple made it through their 6-day warm spell by continuously running their vacuum pumps, and lived to see good sap runs through April. And, as we know, the northern producers barely noticed the warm spell, and went on to experience a record breaking season.

So why did we get July weather in March?

El Nino events occur when there is a warming of surface waters in the Pacific Ocean. This causes a shift north in the jet stream, which changes weather patterns across the country. El Nino years typically lead to warmer than average winters, 2015 was the strongest El Nino on record, and we certainly experienced a warmer than average winter. Warm enough to give us July weather in March, and shut down our West Virginia season just when it should have been getting going. However if you go north far enough, it was just warm enough to give them freeze thaw cycles during what normally would be the dead of winter. This resulted resulted in an exceptional sap flow season.

The chart below shows the occurrence of El Nino events from 1900 to 2015. (1900 on the left and 2015 on the right.) Just looking at the pattern, it becomes obvious that as we have moved through the century, El Nino's started occurring more frequently. Jerry Stenger, Director of the office of Climatology at the University of Birginia put it this way, "A 73 degree January day was always possible in Richmond, or Roanoke of Fairfax before global warming hit the news. But it is much more likely now, and will become likelier still in the future."



What Next?

So, it looks like we are going to have to learn how to manage for maximum sap production given the increased probability of periods of extended thaw. I don't think there is much we can do to live through a 14-day warm spell. However, there are things we can do to live through a 6-day warm spell. That will be the subject of an article in the next newsletter. In the meantime, the good news is that the surface water in the Pacific is cooling. The El Nino of 2015 will likely be followed by a La Nina event in 2016, bringing with it colder than average winter temperatures. It may soon be time to wax your skis, and put up plenty of firewood in anticipation of a good sap season ahead...

WE COUNT





NEWS RELEASE

United States Department of Agriculture

NATIONAL AGRICULTURAL STATISTICS SERVICE

In Cooperation with the West Virginia Department of Agriculture

West Virginia Field Office

1900 Kanawha Blvd E

Charleston, WV 25305

FOR IMMEDIATE RELEASE:

Contact: Charmaine Wilson

June 13, 2016

(304) 357-5126

charmaine.wilson@nass.usda.gov

USDA releases first-ever West Virginia maple syrup report

Charleston, West Virginia - The U.S. Department of Agriculture (USDA) National Agricultural Statistics Service announced the results of the first-ever West Virginia maple syrup report, pulled from the survey done earlier this spring.

"Survey estimates help others really see what the producers are doing in the state," said Charmaine Wilson, West Virginia state statistician. "The more people who respond to surveys, the better and more accurate the data. We're excited to have worked with the West Virginia Department of Agriculture on this and are looking forward to how future results will show the growth of the maple syrup industry in West Virginia."

"The maple syrup data collection period in West Virginia was April 28 through May 17, 2016," Wilson said. "Survey participation was good with a 90 percent response rate to help give us the accurate data producers need."

West Virginia maple syrup production totaled 6,000 gallons in 2016. Number of taps was 48,000. Yield per tap was 0.125 gallons. Maple syrup season opened on February 9, 2016 and closed on March 12, 2016. The average season length was 32 days. The first date sap was collected in West Virginia was January 1, 2016. The last date for sap collection was April 2, 2016. Continue to page 10

Average price per gallon, value of production, price by type of sale and size of container, and percent of sales was not reported for 2015 due to being prior to the first survey.

For more information about this or other NASS reports in West Virginia, please visit https://www.nass.usda.gov/Statistics_by_State/West_Virginia/.

National release: http://usda.mannlib.cornell.edu/usda/current/CropProd/CropProd-06-10-2016.pdf.



2016 WV Maple Syrup Producers Association Annual Meeting

May 20, 2017
WV Department of Agriculture—
Weston Field Office
499 US-33 Weston, WV 26452

West Virginia Maple Syrup Producers Association Membership Application

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)
1 give permission for my contact information to be shared with paid members.
Address:

Phone number:

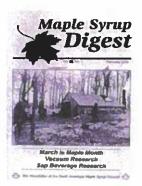
Cell phone number:

Email address:

Annual dues: \$25 – includes a subscription to the Maple Syrup Digest, a quarterly publication of the North American Maple Syrup Council.

Complete the enclosed application and submit with your annual dues of \$25 (make checks payable to WVMSPA) to:

Cathy Hervey 100 Fernwood Drive Wellsburg, WV 26070



Maple Syrup Sales Regulatory Matrix

(To try to bring clarity to the confusion)



		-			
Bulk sales (drums to be repackaged)	X			Х	
Producer direct sales (sugar camp and local markets)	X	х			х
Wholesale to stores (where they mark up the price)	X	х		Х	
Interstate sales[internet or cross boarder	x	х		х	
Reprocessed and other ingredients added (i.e. maple barbecue sauce)		Х	х	×	

DOA (West Virginia Department of Agriculture) Facilities Review LAR sugar camps with over 100 taps.

DOA approved label - (http://arr.ext.wvu.edu/r/download/193862) Contact Cindy Martel or Teresa Halloran at the Department with specific questions.

DOH (WV Department of Health) Food Manufacturing Permit (http://www.wvdhhr.org/PHS/FOOD/INDEX.ASP)

USDA_Eood Facility Registration (US Department of Agriculture) [http://www.fda.gov/Food/GuidanceRegulation/FoodFacilityRegistration/default.htm] see
Cindy Martel for "Vermont simplified form"

DOH Vendors Permit - farmers market (http://www.wydhhr.org/phs/forms/SF-17%20Farmer's%20Market%20Vendor%20Application%20{2}.nd0

New Book Release:

Maple Syrup

An Introduction to the Science of a Forest Treasure

By: West Virginia Author Mike Rechlin Order from
The McDonald & Woodward Pub. Co.
695 Tall Oaks Drive
Newark, Ohio 43055

Online at www.mwpubco.com

WVMSPA ANNUAL MEETING MAPLE CONTEST Winners

When one thinks about a *sweet* job, it doesn't get any *sweeter* than this - a judge at a maple syrup contest! It's no wonder that Adam and I volunteered for this position at our annual meeting held in May. It's important to recognize the quality of West Virginia maple products so that we as maple producers have credibility in the form of a ribbon, trophy, or medal when we brag to our friends, family, and customers that our own products respectively are the best. (I don't know of any fellow sugarmaker that isn't partial to their own products J)

This year was the first year that the WVMSPA held a contest. Categories for entry were maple syrup, maple candy, maple cream, and maple desserts. The criteria we followed was that of the International Maple Syrup Institute (IMSI). We judged syrup on clarity, correct color grade, density, and flavor. 3 of the 4 criteria are objective and were easy to work through. When it came to flavor however, we had our own opinions and had to bring in a 3rd party for tie-breakers. 3 separate judges were provided for the categories of maple candy, cream, sugar, and dessert. A perk of our annual meeting was that all desserts entered in the contest were also available for sampling by attendees during lunch. Attendees were also able to sample the entered syrups and vote for a "People's Choice" award. The contest was a huge hit with entries in every category! I encourage everyone to perfect their maple products and experiment with new ones for future contests. **Read below for 2016 contest winners**



Maple Candy- 1st Bowers Maple, 2nd Frostmore Farm - Maple & More

Maple Sugar-1st Family Roots Farm

Maple Cream-1st Family Roots Farm; 2nd Frostmore Farm - Maple & More (Adam Taylor); 3rd Frostmore Farm - Maple & More (Rachel Taylor)

Maple Desserts- 1st Healing Homestead; 2nd Family Roots Farm; 3rd-Frostmore Farm Maple & More (Rachel Taylor)

People's Choice- Dry Fork Maple Works (John Dalen)

SAP AND TAP

2016 Mid-Atlantic Maple Camp

West Virginia University played host to the 2016 Mid-Atlantic Maple Camp July 20-23. Maple producers and those thinking about getting into the business traveled from seven different states and Ontario, Canada to attend the workshops and hands-on training in the field.

"It was extremely helpful," said Rich Flanigan of



Flangan Family Maple, "I wish I would have attended something like this four years ago when we started our operation."

Ohio State Uni-

versity Extension Agent and maple expert Les Ober kicked things off with a pre-conference workshop Wednesday afternoon. With his nearly three decades in the business, Ober focused on some of the basics of creating a successful maple operation and a few new techniques being used in the industry.

Camp officially started with a tour of WVU's Core Arboretum. WVU Assistant Professor of Silviculture Dr. Jamie Schuler took the campers into the woods for a look at maple trees that grow in the mid-Atlantic region and a lesson on how to use a biltmore stick. It was the first time many of the participants had ever held one.

Day two started with a trip to the WVU forest where Cornell University Extension Associate Stephen Childs divided the group into teams of three to measure and map out maples for data collection. After

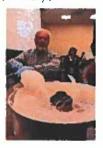


lunch it was back out to the sugar bush to inspect an existing maple tubing system. The campers then installed a mainline with laterals for hands-on practice with the help of

Childs and Cornell University Extension Associate Dr. Michael Farrell. The day ended in the classroom with a lesson on filtering, storing and grading maple syrup

and a demonstration from Childs on how to make award-winning maple candy. (It was tasty!)

The third day of camp focused on tapping, tap hole sanitation, vacuum and bucket inanagement along with marketing your product. The afternoon featured a trip to several area sugar shacks to see how different producers are putting their own stamp on maple. During the evening session, the campers learned how to make maple beverages as



well as plan and manage their maple operations.

Camp wrapped up on Saturday with a half-day classroom session on finances and cost evaluation of operating a maple business. The West Virginia Maple Syrup Producers Association helped sponsor the event A Specialty Crop Block Grant subsidized the cost of Maple Camp.

"This camp has probably saved me four or five seasons of just absolute mistakes, things I was doing wrong or messing up and didn't even realize it," stressed Daniel Brown of Bowing Oaks Farm.

Trevor Swan, who is considering getting into the maple business, called the camp a crash course in just about everything he needed to know. "It was a great exchange of information, not just a lecturer standing up front, telling you what you should do. Going out in to the forest, seeing exactly how it was done and getting to do it for myself was eye-opening!"

Brown called the instructors "top notch" but stressed the campers learned a lot from each other. "These folks are here under the same conditions I am and they are doing it on a daily basis. They know personally what I'm up against and what I'm working with out in my sugar bush."

This was the first time West Virginia hosted the Mid-Atlantic Maple Camp. The West Virginia Maple Syrup Producers Association hopes it won't be the last

https://www.facebook.com/wvmaplesyrup



Plan to Attend the 5th Annual Lake Erie Expo Held November, 11 & 12 2016 in Albion Pa.

It is hard to believe that it has been five years since the first Lake Erie Maple Expo. The LEME has grown from a few hundred attendees to over 500 in attendance in 2015. When the Expo started it was a Saturday only show. Over the years the Workshop Series was added on Friday. It has now expanded to 6 workshops giving the producers a wide variety of topics to choose from. The one that has not changed is the number of quality speakers presenting at the event. The LEME has the absolute best presentations from the leaders in university research and the maple industry. 2016 will be no exception with speakers from University of Vermont with Dr. Tim Perkins, the Cornell Maple Program, Steve Childs and Dr. Michael Farrell, from the University of Maine, Kathy Hopkins and Les Ober from the Ohio State University. Returning in 2016 will be Glenn and Ruth Goodrich from Cabot, Vermont. There will also be a wide variety of topics on the latest technology given by factory experts.



MARK YOUR CALENDAR

West Virginia Maple Producers are very excited for our second "Mountain State Maple Day" on March 18, 2017. If you missed out last year please join in on the "Sweetest Weekend" in West Virginia. Watch our Facebook page for details.