

M A S S A C H U S E T T S
SUGAR BUSH NEWS

The Newsletter of the Massachusetts Maple Producers Association

Summer tour and workshop August 2 in Ashfield

This year's Mass Maple Summer tour and workshop will be held on Sunday, August 2 at South Face Farm in Ashfield. We'll be offering a chainsaw maintenance and safety workshop – bring your chainsaws – and Tom will offer a tour of his operation. Lunch will follow at the nearby Ashfield Lake House. See the enclosed flier for details and a registration form.

Record production in MA

Massachusetts sugarmakers had a record season, according to the annual report from the National Agricultural Statistics Survey (NASS). The number of taps in the state increased by 20,000 and we produced 75,000 gallons of syrup, a 23% increase over last year and even well above 2013's blockbuster season. Only New Hampshire had a greater increase. Nationally, production was up by 6%. Details are on page four.



Maple Weekend a success

More than 40 sugarmakers and nearly 40 restaurants participated in Mass Maple's second annual Maple Weekend, March 21-22. Sugarhouses around the state were open to the public for tours, demonstrations and tastings, and restaurants featured menu items made with 100% pure Massachusetts maple syrup. Everything from cocktails to deserts to marinades to salad dressings highlighted the versatility of maple syrup as an ingredient.

Participation in Maple Weekend is a great way to attract visitors to your sugarhouse, and participation is free. Watch for info on Maple Weekend 2016!

Help promote MA maple syrup

The Big E – September 18 - October 4 – is our best opportunity of the year to educate people about Massachusetts maple products and turn them into customers!

More than 1.5 million people visit the Big E, and many of them stop by our booth. This is an opportunity to teach them about what's so great about real maple syrup, and nobody is better than YOU, a maple producer, at helping to do this.

Volunteer slots are currently open for all days of the week and all times of day – sign up early to make sure you get the times you want. Volunteers get a free day pass, parking, and \$10 for a meal. You also get to spend the day with other sugarmakers, making candy and cream, and hearing people who just had their first taste of real maple syrup tell you that they've never tasted anything better.

Contact booth manager Andy Schmidt at 413-446-4128 or windsorhill5@yahoo.com to sign up today!

Massachusetts to host maple dessert contest

The Massachusetts Maple Producers Association is sponsoring the first annual Massachusetts Maple Syrup Dessert Contest at the 2015 Big E. The contest will be held on September 29 in Springfield, and is open to anyone 18 years old or older. Participants will enter original dessert recipes made with Massachusetts maple syrup, and will be judged based on flavor and appearance. More details are available at <http://goo.gl/M0p5MS>.

From the MMPA President

Mother Nature has given us another unique sugar season to add to the record books. We have always shared with our customers that March is Maple Season but it is also Mud Season. This year we had snow flurries every Saturday and did not see mud until April! Overall I have heard that Massachusetts producers had great sugaring seasons and lots of quality maple syrup was made.

I would like to thank Jim & Allison Lattanzi from Hollis Hills Farm for hosting our annual March is Massachusetts Maple Month Kickoff and ceremonial tree tapping event that took place on March 6. What an amazing turnout – definitely not the usual sugarmaker gathering we are used to. Governor Baker as well as many political figures including the new Commissioner of the Department of Agricultural Resources, John Lebeaux, attended. The event had record attendance and I hope that lasting connections and impressions were made.

A final note, as you market your maple syrup and specialty products at your farm, sugarhouse, fairs, farmers markets, and festivals, remember: **Image is Everything!** Be aware of:

- The inside and outside appearance of your sugarhouse or booth.
- The physical appearance and dress of you and your staff.
- Your product appearance (no sticky containers).
- How you greet your customers & visitors.
- Do you educate your customers on the sugaring process and your products and do you offer samples when possible?
- Do you give examples on how to use maple syrup and your specialty products?

I hope you all have successful sales and a great summer, and I look forward to seeing you at the summer gathering.

Missy Leab

Massachusetts Maple Producers Association Board of Directors

The Massachusetts Maple Producers Association is a non-profit organization representing more than 250 producers in our state. The Association is governed by a board of directors, and daily operations are conducted by a coordinator who serves at the discretion of the board. If you have any questions, problems or suggestions, please let one of the following people hear from you. The board relies on your input to keep them informed on issues of importance to you.

Name	Term Expires	E-mail Address	Town
Cynthia Cranston	2016*	ccranston@verizon.net	Ashfield
Pat Delaney – Secretary	2016*	pdelaney@massmaple.org	Belchertown
Dana Goodfield	2018	danachevww@aol.com	Conway
Missy Leab – President	2015	missy@iokavalleyfarm.com	Hancock
Andy Schmidt – Vice President	2016*	windsorhill5@yahoo.com	Windsor
Gary Shaw	2017	shawssugarhouse@comcast.net	Buckland
Chip Williams	2016*	cwilliams@massmaple.org	Deerfield
Stan Zawalick	2017*	szawalick@massmaple.org	Florence
Paul Zononi	2017*	pzononi@massmaple.org	Haydenville

*Those Directors with a * next to their term expiration date will have served two consecutive terms as directors, and cannot be re-elected without at least a one year break.*

Containers

Mass Maple Warehouse	212 Reynolds Rd., Shelburne, MA	413-625-2900
Devon Lane Farm Supply	357 Daniel Shays Hwy., Belchertown, MA	413-323-6336
Red Bucket Sugar Shack	Kinne Brook Rd., Worthington, MA	413-238-7710

Main Office

Winton Pitcoff - Coordinator/Treasurer	winton@massmaple.org	Plainfield
Mass Maple Association office	PO Box 6, Plainfield, MA 01070	413-628-3912
E-mail: info@massmaple.org	Mass Maple Website: www.massmaple.org	

Classifieds

Looking for a **raised flue back pan** for a 5x8 Lightning evaporator. Call Warren at 413-522-2512

Homemade candy machine for sale. Great for the small producer or the occasional user. Contact Keith at 413-559-1150 for more info.

2015 **Very Dark syrup** for sale in 15.5 gal kegs or 5 gal plastic. Call Keith at 413-559-1150 for more info.

D.C. Farms is pleased to offer **granulated maple sugar**. We also offer custom maple sugar processing for maple producers who just don't have the time to make it but want to use their syrup. Pick up and delivery is always available. We offer bulk boxes and sugar shakers. We ship as well. Please feel free to call us at 413-331-3786. If we don't answer leave us a message and we will get right back to you.

Wachusett Mountain Farm Fresh Fest is looking for **vendors** for their August 29-30 event. See wachusett.com for details.

After 40+ years of sugaring I'm downsizing and cleaning house. I have **lots of extra and excess sugaring equipment to sell**, and everything can be seen at the summer picnic here at our sugarhouse in Ashfield on August 2.

Among the items for sale are: 4x10 oil fired Small Brothers evaporator with cross-flow pans, one spare pan, pre-heater hood, oil burner cover, etc. \$2,000. Additional items include a craft fair/sales trailer built to look like a little red sugarhouse, turntable type maple cream machine, Homelite gasoline powered 2" sap pump, a few electric sap pumps of various sizes, syrup transfer pump, various vacuum pumps with and without motors, 25' of 1.5" suction hose for sap collecting, old flatbed truck used for sap hauling (runs but need work - cheap). Within the next year or so I'll be having a big sale of restaurant equipment from our sugarhouse restaurant, as well as lots of other miscellaneous sugaring equipment and supplies, including over fifty 15.5 gallon SS syrup kegs.

Come to the summer picnic and take a look at what I've accumulated here over the past 30 years – you'll probably find something you'd like. Make me an offer or contact me about anything you are interested in. Tom McCrumm, 413-628-3268, tom@southface-farm.com

Welcome New Members

The following people joined MMPA in the last six months. If they're neighbors of yours, stop by and welcome them!

Ricky Boardman, Sheffield
Nancy Bordewieck, Bernardston
Benoit Cloutier & Donna Charette, Heath
Susan Collins, Brimfield
Steve Cummings, Middlefield
Frank Ferrucci, Georgetown
John Gomersall, Mendon
Eric Hamm, New Salem
Michael Hoffman, Townsend
Christopher Jones, Williamsburg
Thomas Meade & Martha Bryenton, West Brookfield
Duane Meehan, Hatfield
Heather Packard, Rutland
Joshua Rapp, Shutesbury
Brian Rice, Shelburne Falls
Timothy J. Robinson, Chocorua, NH
Charles Stanton, Brimfield
David Stowe, Natick
Rebecca Tirabassi, Wilbraham
Jon Waidlich, Millers Falls

Mass Maple Warehouse

212 Reynolds Road • Shelburne, MA 01370
413-625-2900

SUPPLIES: The warehouse is well stocked with all sizes of maple syrup jugs, maple cream jars. Other syrup containers stocked include three sizes of glass maple leaf bottles and five-gallon plastic containers for bulk packing. The warehouse also has cardboard cartons for all size of jugs, gift boxes and maple candy boxes. Many other materials are available: Posters, recipe booklets, labels, hang tags, producer manuals, instructional and educational videos, etc.

HOURS: The warehouse is open seven days a week, on a "call ahead" basis only. During the maple season if no one can answer the phone, a message on the answering machine will indicate the hours for that day when someone will be home. Otherwise, please leave a message and someone will return your call. Please be sure to call ahead for everyone's convenience - don't be disappointed by arriving unannounced and finding no one there to assist you. Terms are cash or check only upon pick-up – no charges.

UPS: We can ship only full cases of jugs. You will be billed for the cost of the jugs plus UPS charges. Call in your order to the warehouse (413-625-2900) and we will send it out with a bill. Partial cases of jugs and glass of any quantity cannot be shipped safely.

Maple Syrup Taps, Yield, and Production – States and United States: 2013-2015

State	Number of taps			Yield per tap			Production		
	2013	2014	2015	2013	2014	2015	2013	2014	2015
	(1,000 taps)	(1,000 taps)	(1,000 taps)	(gallons)	(gallons)	(gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)
Connecticut	78	83	85	0.256	0.193	0.224	20	16	19
Maine	1,880	1,850	1,850	0.298	0.295	0.299	560	545	553
Massachusetts	280	290	310	0.225	0.210	0.242	63	61	75
Michigan	490	430	470	0.302	0.244	0.270	148	105	127
New Hampshire	470	490	560	0.264	0.229	0.275	124	112	154
New York	2,200	2,200	2,310	0.261	0.248	0.260	574	546	601
Ohio	440	450	440	0.352	0.289	0.261	155	130	115
Pennsylvania	583	588	620	0.230	0.248	0.266	134	146	165
Vermont	4,200	4,350	4,490	0.352	0.310	0.310	1,480	1,350	1,390
Wisconsin	740	700	760	0.358	0.286	0.283	265	200	215
United States	11,361	11,431	11,895	0.310	0.281	0.287	3,523	3,211	3,414

Maple Syrup Price by Type of Sale and Size of Container – States: 2013 and 2014

Type and State	Gallon		1/2 Gallon		Quart		Pint		1/2 Pint	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)
Retail										
Connecticut	68.00	63.50	36.10	35.00	20.10	19.70	12.80	11.90	7.00	6.95
Maine	55.10	56.60	30.30	30.90	16.40	16.90	10.00	10.00	5.90	6.40
Massachusetts	54.30	53.40	31.20	30.80	18.90	19.00	11.50	11.40	7.55	7.55
Michigan	45.00	50.00	25.70	28.00	15.20	15.30	9.00	9.50	6.60	6.90
New Hampshire	52.40	53.10	29.90	31.10	18.50	18.40	10.30	11.20	6.40	6.55
New York	45.30	45.30	26.70	25.70	16.30	16.50	9.80	10.50	6.50	7.45
Ohio	41.70	40.90	25.60	25.00	14.70	15.70	8.90	9.70	5.90	7.00
Pennsylvania	41.20	40.30	23.30	23.70	13.50	14.20	8.25	8.70	4.80	5.00
Vermont	45.30	47.00	26.40	27.00	16.20	16.00	10.50	9.80	6.60	6.10
Wisconsin	42.80	44.40	24.30	25.00	13.20	12.90	8.10	8.40	4.60	6.00
Wholesale										
Connecticut	53.80	49.40	(D)	26.60	15.80	14.40	9.00	7.75	5.10	5.40
Maine	(D)	46.40	(D)	23.90	14.20	13.20	7.90	7.20	4.90	4.90
Massachusetts	40.10	43.60	23.00	23.20	13.40	13.60	7.65	7.35	4.75	4.50
Michigan	44.00	37.40	25.60	24.50	13.30	12.80	7.80	7.60	5.00	4.80
New Hampshire	46.10	42.40	20.50	28.20	13.90	15.70	8.00	8.40	5.00	5.45
New York	40.40	41.50	24.00	23.30	14.30	12.00	8.15	7.16	5.45	4.05
Ohio	34.00	43.00	21.20	20.30	13.10	12.50	7.50	7.60	4.60	5.40
Pennsylvania	39.10	31.50	22.40	23.10	12.70	15.10	7.00	8.35	4.70	6.85
Vermont	38.50	39.30	23.30	24.30	13.70	13.90	8.40	8.20	5.10	5.20
Wisconsin	34.50	35.70	25.50	24.10	13.40	12.50	6.80	7.00	4.40	4.20

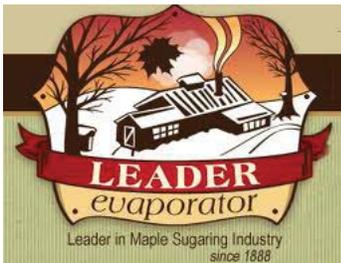
(D) Withheld to avoid disclosing data for individual operations.

Source: Crop production report, Released June 10, 2015, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA), <http://www.usda.gov/nass/PUBS/TODAYRPT/crop0615.pdf>

Devon Lane Farm Supply Inc.

Premium Maple Supplies and Equipment

Nate Shattuck
357 Daniel Shays Hwy
PO BOX 1309
Belchertown, MA 01007
413-323-6336
413-262-6594 cell
nates@devonlane.com
www.devonlane.com



2015 NAMSC/IMSI Annual Meetings and Technical Presentations

The annual meetings of the North American Maple Syrup Council and the International Maple Syrup Institute will be held October 19-21, 2015 in Somerset County, PA. Details and registration information are available at <http://namsc.org/index.php/en/2015-annual-meeting>.

Even if you're not planning to attend, please consider entering some of your syrup, candy, cream or photos. Entry forms are at the above link. Last year Massachusetts sugarmakers won more awards than any other state or province! If you want to save on shipping costs, check with coordinator Winton Pitcoff (winton@massmaple.org) and he can bring your entries to Pennsylvania with him.



Wholesale sales opportunity

One of the vendors at the new Boston Public Market (<https://bostonpublicmarket.org/>) would like to carry MA syrup. This is a great opportunity to showcase our industry's products, and to generate sales for our members. Because the Market is a new venture, we can't predict right now how much volume will be needed. It would make the most sense to have a few suppliers from our membership who can rotate providing product to the vendor.

If you would be interested in selling syrup, please send your wholesale prices for 100ml, 1/2 pint, pint, and quart jugs, as well as for glass leafs, candy and cream, to winton@massmaple.org. Also, let me know if there is a minimum order for these prices. Syrup must be packed in MMPA jugs and so MUST be MA-made syrup. Arrangements will be made for pickup/delivery in Central MA.

And yes, the rumors are true -- there will also be a vendor there selling VT syrup. All the more reason why MMPA members should get together to make sure we've got enough MA syrup to meet demand there.

The advertisement features a background of a winter scene with bare trees and a snow-covered ground. In the center, the text reads "sugar hill" in a large, bold, lowercase font, with a registered trademark symbol (®) to the right. Above the letter 'i' in "hill" is a stylized maple leaf. Below "sugar hill" is the word "CONTAINERS" in a smaller, bold, uppercase font. Underneath that is the word "and" in a smaller, lowercase font. Below "and" is "Massachusetts Maple Producers Association" in a large, bold, uppercase font. Underneath that is "Long Standing Partners in the Maple Industry" in a smaller, uppercase font. To the right of the text is a silhouette of a plastic jug. At the bottom of the advertisement, there is a silhouette of a wooden barn with a snow-covered roof. In the bottom left corner, there is a logo for Hillside Plastics, Inc., which consists of a stylized 'H' inside a hexagon. To the right of the logo, the text reads "HILLSIDE PLASTICS, INC." in a bold, uppercase font. In the bottom right corner, the contact information is listed: "262 Millers Falls Rd; Box 490", "Turners Falls, MA 01376", "Ph: 413.863.2222", "Fax: 413.863.3774", and "www.hillsideplastics.com".

Small business nutrition labeling exemption

By Stephen Childs, Cornell Sugar Maple Program Director & NYS Maple Specialist

A question that seems to come up fairly often with maple producers is “When do I need to have a nutrition label on my maple products?” The following information is from the FDA website and explains when a producer is exempt from needing a nutrition label. Even when a producer or product is exempt from the requirement, many consumers make purchasing decisions based on the nutrition information on retail containers, so a nutrition label may be good for sales. Caution: the nutrition label is not the same as the farm name and contact information required on all packaged food sold in Massachusetts.

The Federal Food, Drug, and Cosmetic Act requires packaged foods to bear nutrition labeling unless they qualify for an exemption. One exemption is for retailers with annual gross sales of not more than \$500,000, or with annual gross sales of foods to consumers of not more than \$50,000. For these exemptions, a notice does not need to be filed with the FDA.

If a person has fewer than 10 full-time equivalent employees, that person does not have to file a notice for any food product with annual sales of fewer than 10,000 total units.

Another exemption, for low-volume products, applies if the person claiming the exemption employs fewer than an average of 100 full-time equivalent employees and fewer than 100,000 units of that product are

sold in the United States in a 12-month period. To qualify for this exemption the person must file a notice annually with FDA. Note that low volume products that bear nutrition claims do not qualify for an exemption of this type.

A “product” is a food in any size package which is manufactured by a single manufacturer or which bears the same brand name, the same statement of identity, and has similar preparation methods.

A “unit” is a package or, if unpackaged, the form in which the product is offered for sale to consumers.

For the maple producer who is wholesaling in retail containers to a larger business, it is the size of the business that is retailing the products that determines exemption, not the maple producer wholesaler. Many maple products being sold wholesale will need the nutrition label depending on the size of the retailer and if they have applied for the exemption.

For additional information, forms or instructions go to: <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm2006867.htm>

This article originally appeared in the Summer 2014 issue of The Pipeline, the newsletter of the New York State Maple Producers Association.

GREENFIELD PAPER BOX COMPANY, INC.

55 PIERCE STREET
GREENFIELD, MA 01301

T (413)773-9414

F (413)774-5134

**CUSTOM PACKAGING MANUFACTURERS
SPECIALIZING IN MAPLE PRODUCTS PACKAGING**

You know the effort and love that you’ve put into your maple products, now let us manufacture the package or display to SELL it! Call or e-mail us anytime for free consultation and estimates.

- Engineering, package and graphic design
- Pre-press, printing and foil stamping
- Rigid set-up boxes
- Folding boxes with or without acetate windows
- Set-up or Folding gift packs
- Shelf and Counter Displays
- Die-cutting

www.greenfieldpaperbox.com

gpbox123@verizon.net

Upcoming NY and VT maple events

The 2015 **Cornell Maple Camp** will be held **July 22-25** at Cornell University's Arnot Teaching and Research Forest in Van Etten, NY. The session is designed for anyone who wishes to become a maple producer or those with some experience who are seeking to expand their production, products and marketing through focused and hands-on intensive training that helps them produce maple products with greater efficiency and profitability. Details and registration information are at <http://goo.gl/t7PFmX>.

The Caledonia County Maple Association will host the 2015 **Vermont Maplerama** on **July 23-25**. Activities will begin with the trade show on the 23rd at the Caledonia County Fairgrounds in Lyndonville. There will be a full day tour in coach buses to a variety of maple operations in the county, ranging in size from 2,000 taps to 6,000 taps. Saturday, there will be travel to adjoining Essex County, to visit the new Sweet Tree facility, one of the largest maple operations in the US, as well as other large and diversified operations in the county. Details are available at <http://goo.gl/n9eeFH>.

Update on new Lovibond grading sets

There are some problems with the color breaks in the new Lovibond grading kits based on the new grading system – the vial for the lightest grade, Golden/Delicate, has been found to be too light. The manufacturer is working with regulatory agencies to correct the problem and will have replacement discs available as soon as possible. For more information, contact Leader at 802-868-5444.

Online Sugarhouse Directory

Remember that you can make changes to your online directory listing at any time. Check out the directory at <http://www.massmaple.org/directory.php> and if you have any changes contact Coordinator Winton Pitcoff at winton@massmaple.org or 413-628-3912, or mail changes to MMPA, PO Box 6, Plainfield, MA 01070. Please note that being a member of Mass Maple does not mean you are automatically included in the directory – you must let us know that your sugarhouse is open to the public and that you would like to be listed.



HICKORY HILL MAPLE

159 Buffington Hill Rd

Worthington, MA 01098-0272

Carrying the full line of Lapierre maple sugaring equipment
Servicing all of Massachusetts and Connecticut

- Custom designed high vacuum tubing systems
- Hurricane Force 5 Gasificator Evaporators
- Lapierre R.O.'s
- Lapierre & Bernard sap extractors
- Stainless Steel tanks
- Currently operating 10,000+ tap high vacuum system

Paul Sena - Owner

phone: (413) 238-5514

hickoryhillmaple@gmail.com

www.hickoryhillmaple.com



Making Your Label Vision A Reality

Dairy ~ Food & Beverage ~ Health and Beauty ~ Nutraceutical ~ Durable Goods ~ Promotional

11 Tigan Street Winooski, Vermont 05404 1-800-639-7092



Stay Connected

Celebrating Over 30 Years



Check out our new website: www.clov.com

1-800-639-7092

P.O. Box 9342 - So. Burlington, VT or Plant: 11 Tigan Street - Winooski, VT

Opportunities at farmers markets

I recently stopped by a farmers market in Hingham, MA, where the stand selling maple syrup turned out to be some very nice folks from a farm in Vermont. I don't know what town they were from, but even if they were from the absolute closest town to Hingham, it was at least a 120-mile drive for them. If they're finding it worth the cost of gas and time, they must be selling a decent amount of product there.

Most farmers markets give priority to nearby vendors, so there's no reason why any farmers market in MA should be selling anything but Massachusetts maple products. These markets are not just a great opportunity for sales, but also a chance to educate the public about the industry and the versatility of maple syrup. There are more than 200 markets in the state – you can find lists at massfarmersmarkets.org and www.mass.gov/agr/massgrown/map.htm. Get in touch with the market manager at one near you and start selling!



Get your MA Ag license plate!

New specialty license plates that will support new farmers, farmers' markets, and a vibrant Massachusetts food economy will be issued once 1,500 people sign up. A charge of \$40 is applied when you order the plates, in addition to a one-time RMV assessment of \$20 to process the conversion. Then, every two years, you will be charged the added \$40 upon renewal, all of which goes to the charities sponsoring the plate.

Sign up now at www.mafoodplate.org.



NORTH HADLEY

SUGAR SHACK

You can have confidence in us

Dealer for
H2O Innovation
Sunrise Metal Shop
GBM
Marcland

h₂o
innovation
du savoir à partager... knowledge to share

We also carry glass from Artisan Printing of Vermont

Call us for all your Maple Needs

413.585.8820 413.320.2216

northhadleysugarshack.com
181 River Drive
North Hadley, MA 01035

Building a small-scale reverse osmosis machine

By Patrick Delaney

I wrote off the idea of ever using reverse osmosis in my maple syrup production a long time ago. When I did consider it, it was in the same way that I would consider that someday I might own a Jaguar (car, cat... it doesn't matter) – it was never going to happen, but I could dream.

The reasons were all good ones. I just do not process enough sap to need an RO. They're too big – no room for that beast in my little shack. They're expensive to buy and expensive to maintain. (I need to build a separate heated room for it!?! I don't even treat house guests that well!) Finally, all that stainless steel would be competing with my evaporator for attention. I need to be careful about insulting my lead actor. So when a fellow sugarmaker suggested I could build my own small scale RO from parts essentially purchased off the shelf from Home Depot, with images in my head of finally getting to ride that jaguar I decided to look into it.

Everything I learned came from a four-year-old discussion thread on [mapletrader.com](http://bit.ly/1IwLa9T) (<http://bit.ly/1IwLa9T>). Here, sugarmakers have detailed their experiences in building RO rigs from residential water filtration cartridges. There, you'll find everything from shopping lists of parts to detailed assembly schematics to pictures of builds and finished rigs.

I started small, just like with sugaring, so my stockpot-on-a-turkey-fryer version of an RO was just two 100GPD membranes, the required 500 micron filter and a booster pump, plus all the necessary tubing and fittings. The whole thing ended up costing about \$250, delivered, with components purchased from Amazon, eBay and McMaster-Carr (great source for fittings!). I built a small insulated cabinet into the wall of my shack to house the filter and the membranes, and wired a 100-watt bulb to combat temps that might freeze the membranes. You could just as easily attach all the parts to a portable rack and

bring the whole thing indoors when not in use to avoid freezing.

So how did it work? Surprisingly well. My goal with this RO was simply to remove water from my sap, not to achieve a particular sugar concentration. I connected my membranes in parallel, and was removing 2.5 gallons of water per hour. My permeate (the concentrated sap) was cycled back into my holding tank and the pure water removed was collected in a five-gallon bucket. I used this water to flush the membranes once per day to keep them clean. I noticed no loss of performance over the season. Filters did need to be changed regularly. When they get dirty, and when the weather heats up, they start to get funky. Buy those in bulk. You won't regret it.



I had a few issues. I thought I was saving money by using barbed tubing fittings, but no. They were weeping constantly at pressures higher than 65-70 psi and no number of hose clamps (SO many clamps!) would fix it. I will be replacing them all with push-to-connect fittings. Higher pressures will mean more water removed through the membranes. I'll also be upgrading to the recommended needle valve to control the permeate outflow (and hence, the system pressure). The ball valve I used worked all right, but a needle valve will

give much finer control.

For the upcoming season I'm planning to add two more membranes to the system, shooting for a 5-6 gph water removal rate. That'll be like having a second evaporator that I can leave running all night long, unsupervised, without fears of burning anything. And there's not a hint of stainless steel for my real evaporator to get jealous over.

Pat welcomes questions about his project. Contact him at occasionalcreekmaple@gmail.com. And if you've got a creative sugaring project you'd like to share with MMPA members, let us know!

Our Heriage Is Maple Sugaring...



Call and ask for our maple equipment catalog and current used equipment list. Bulk maple syrup bought and sold. Syrup and equipment may be accepted in trade toward equipment.

Photo: Ken Bascom with Jack and Jerry collecting sap, 1953.



Bascom Maple Farms
 56 Sugarhouse Road, Alstead, NH
 M-F, 7:30 - 4:30 Saturday, 8 - 12
 Tel/603-835-6361 Fax/603-835-2455
 E-mail: sales@bascommapple.com

LOG ON WITH TAJFUN!

These essentials make wood processing simple.

Call us for catalog
800-634-5557
www.oescoinc.com



For a full list of dealers, scan this QR code, or see www.oescoinc.com and click on "Logging Winches & Firewood Processors"



P.O. Box 540, Rt. 116/8 Ashfield Road, Conway, MA 01341



3 pt. hitch Winches
 Turn your tractor into a skidder.



3 pt. hitch Firewood Processors
 Cut, split & load 2+ cords per hour.



Electronic Digital Calipers
 With Scribner, Doyle & International rules



Grapples
 Designed for heavy duty, professional use.





FIND OUT WHY CDL IS THE LARGEST MAPLE SUGARING EQUIPMENT MANUFACTURER

Take a look at these CDL exclusive innovations



Wood pellet evaporator



The rapitube, the 1st mainline
wireless system



Affordable small producer RO



The most efficient RO on the market



Intens-o-fire II, the most efficient wood
evaporator on the market.
Only need to fire every 45 minutes!
No other wood evaporator boils faster.

Call us at:

3 Lemnah Drive
St. Albans, VT, 05478
1-800-762-5587

or your local Massachusetts dealer:

Keith Dufresne
113 Goshen Road, Williamsburg, MA
(413) 268-7509