

# Maple Mainline

## Vermont Maple Conferences January 16, 23, 30

The University of Vermont Extension, Addison County Maple Sugarmakers Association and Vermont Maple Syrup Makers' Association are pleased to offer the 6th annual Vermont Maple Conferences on 3 Saturdays in January, 2010. The conferences are educational meetings held for the purpose of bringing the latest information and research findings about forest management, sap collection, syrup production, quality control, and marketing to sugarmakers in Vermont and surrounding regions. These all day meetings, which are designed to provide education for maple producers of all levels of skill and experience, are open to the public. Classes are taught by scientists, natural resource professionals and sugarmakers from around the state. Meetings also feature a trade show with vendors displaying maple related equipment and a lunch with a maple theme. These meetings are widely perceived to be among the best educational opportunities for sugarmakers in the US and Canada.

### *Please Note:*

As was true last year, the registration form in this newsletter has two parts. Please fill out the appropriate half, depending on whether you wish to attend the Jan. 16<sup>th</sup> meeting, or either the 23<sup>rd</sup> or 30<sup>th</sup> meetings. Note that the meeting day schedules are different, that the checks are made out to different organizations, and the forms are sent to different addresses. Thank you!

**Registration tables** will be set up from 7:30 am through noontime, with coffee & donuts &/or pastries. The trade show will also be open at that time.



### **Sat., Jan. 16, Middlebury Union H.S., Middlebury**

Location: off US Rt. 7 just south of the village. Lunch will feature a pork roast dinner with all the fixings.

### **Sat., Jan. 23, Lamoille Union High School, Hyde Park**

Location: West side entrance to Lamoille Union High School, US Rt. 15 in Hyde Park. Lunch will be catered by the Culinary Arts program and will feature Maple Bourbon Roast Pork, with all the fixings.

### **Sat., Jan. 30, Bellows Falls Union High School**

Location: off US Rt. 5, just south of Bellows Falls. Lunch will feature ham dinner with homemade casseroles, salad & desert by the Freshman class & parents.

**Pre-Registrations** must be **postmarked** by: December 31 (Middlebury) or January 8 (B.F. and H.P). Thank You! Registrations received *by these dates* will be assured of a meal, if selected and paid for. Lunch for Walk-ins or registrations received *after these dates* will be served on a first come, first served basis. Please help us by registering early.

**Special needs:** If you require an accommodation to participate in this program, please notify our office at 802-223-2389 or 866-860-1382 (toll free, in-state only).

**Please Note:** All conference sites are on school property. A strict **NO SMOKING** policy must be followed.

You are welcome to attend all of the various meetings. We have developed a very inclusive agenda, with classes for all levels. We sincerely hope this program will be beneficial to you and your maple operation. **A drop box for conference evaluations will be provided as you exit.**



University of Vermont Extension, 617 Comstock Rd, Suite 5  
Berlin, VT 05602 ~ 802-223-2389  
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## VMSMA President's Message: Education Pays Big Dividends

With this being said, it now makes more sense than ever for maple producers to attend at least one of our Vermont Maple Conferences this coming January. Over the last decade or so we have seen a big change in the way we gather and produce our maple syrup. Now many of our producers average a half gallon or more of syrup per tap year after year. Ten years ago and for some even today it's hard to believe this is even possible, but because of good educational seminars such as these, producers are now learning what it takes to make this happen.

We saw a record number of attendees last year and the number of producers coming to more than one of these schools per year is also still growing. No matter how many years you have been sugaring or how large your operation is I believe you can always learn something new; maybe you can get a new idea just by talking with a fellow sugarmaker and learn what's working for them. I would once again like to ask anyone who is planning to attend one of this year's schools to please bring a friend, possibly someone that has never attended one of these new maple conferences so they too will see just how much information there is here for them.

Thank you and see you there!

Rick Marsh, President VMSMA

### Lamoille Union and Bellows Falls High Schools: Jan 23 & 30 Schedule for the day:

7:30 ~ Registration opens; Coffee & Donuts  
8:30 - 9:00 ~ Welcome (in Auditorium)  
9:00 - 9:50 ~ Session I  
10:00 - 10:50 ~ Session II  
11:00 - 11:50 ~ Session III  
12:00 - 12:50 ~ Lunch & Trade Show  
1:00 - 1:50 ~ Session IV  
2:00 - 2:50 ~ Session V  
3:00 ~ Turn in Evaluations, Have a Safe Trip Home



Tim Perkins recording sap flow under vacuum.

**Check-valve Adapters and Antimicrobial Silver spouts: Pros and Cons** ~ Dr. Tim Perkins, director of the UVM Proctor Maple Research Center will describe two years of research on the use of check-valve adapters and antimicrobial silver spouts and droplines.

**Concentration of Maple Syrup by Reverse Osmosis** ~ Yvon Pellerin of Dominion and Grimm has been involved in building and developing reverse osmosis for maple syrup since 1986. He will discuss how reverse osmosis use has changed since 1980's and how equipment improvement, customer needs and technology availability have driven equipment modifications. He will present the good utilization method, show the performance, cost and performance limits and discuss what he can see in the future in terms of maple syrup filtration.

**Beware of Lurks in Your Sugarhouse!** ~ Henry Marckres, chief of Consumer Protection for the VT Agency of Agriculture will tell you that there are "things" in your sugarhouse that may affect the quality and safety of your syrup. This is a reminder of what to watch for when producing and packing your product.

**Avoiding Equipment Trouble in Modern Sugaring Operations** ~ Nick Atherton of MaplePro will highlight some of the problems he has encountered in 15 years of service calls to maple operations, and discuss how producers can avoid both mechanical and electrical trouble. Part I will cover pumps, releasers and other components of vacuum systems; Part II will cover reverse osmosis. **Hyde Park Only.**

**UPS, the Leader in Shipping for Over 100 Years!** ~ Account Manager Charlie Lavery will detail how to ship your items properly so you can avoid any damage or delay to your shipments. He will also update you on the increasing number of services that are available to streamline your shipping processes. In addition, various web based tracking and visibility tools will be demonstrated that will allow you to have real time notification on the status of your shipment.

**Starting Out With Vacuum** ~ Glen Goodrich, Cabot Sugarmaker. A discussion of tubing layout and materials, vacuum pumps, releasers and other infrastructure needed to start a new vacuum sap collection system or upgrade an existing system, or convert an existing gravity system to vacuum.

**Vacuum and Spouts** ~ Glen Goodrich. What makes a superior sap collection system? This will be a discussion of the various components of a modern, high yielding system, including the use of wet and dry lines, proven tubing and spout materials, advanced pumps, and the methods for putting everything together to create a high-vacuum system that will provide maximum production.

**Boiling Techniques and High Sap Concentration** ~ Glen Goodrich. Firing technique, sap level, defoamer use, niter control, draw off methods—Glen will discuss these and other important components of evaporation to make a superior product. The presentation will also cover concentration of sap using RO and special boiling techniques necessary for processing high concentrate. **Hyde Park Only.**

**Consistency is the Key to Making High Quality Maple Syrup** ~ Brad Gillilan, Leader Evaporator. Brad will discuss the best practices in boiling to make good tasting, high quality syrup. He will cover even firing, firebox construction, and evaporator efficiency. **Bellows Falls Only.**

**Basic Chainsaw Maintenance and Sharpening** ~ Every sugarmaker owns a chainsaw, but are you confident that you can properly sharpen and maintain your saw? This session will cover the basics of chainsaw maintenance including power head inspection, basic saw tune-up, proper sharpening of a chain, and how the saw works. Class taught by Paul Frederick (HP) and Sam Schneski (BF), both of VT Department of Forests, Parks & Recreation.



Roy Davis of Derby Line with a special shelf and light that he uses for grading syrup.

**Sugarhouse Adaptations** ~ A panel discussion on tips, techniques and inventions that add convenience and efficiency to working in the sugarhouse. Panel lead by Brian Stowe, PMRC (Hyde Park) and Dave Mance, VMSMA Vice President (Bellows Falls).

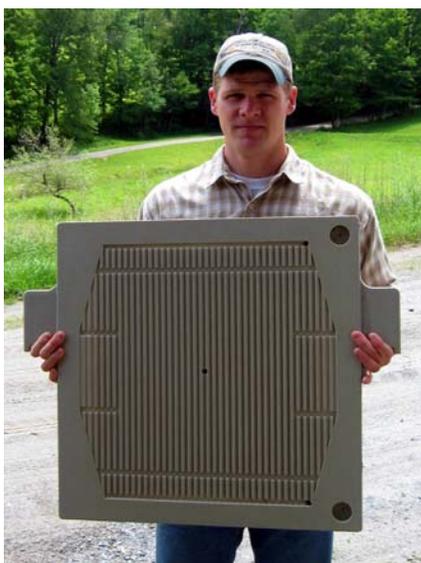
**The Asian Longhorned Beetle: An Update on Current Status and Future Control Plans** ~ Barbara Burns, Vermont Department of Forests, Parks and Recreation. An update on Asian Longhorned beetle, including what's being done about it in Worcester, MA, in Vermont, and elsewhere. What's likely to happen if the insect is found here? How can we "work smarter" to reduce the threat to our maples?

**The USDA Energy Grant--Learn How to Prepare Your Application** ~ Marcia Maynard, Cabot Sugarmaker and Catherine Stevens, VT Maple Syrup Marketing Director. If you're thinking of applying for a USDA energy grant for a new RO, steam-away or other energy saving equipment, it's not too early to begin. Learn about the process and tips for how to get started now so that you'll be ready when the 2010 deadline is announced.

**How Some Phenomena Effect Sap Flow Under Vacuum** ~ Tim Wilmot, UVM Extension and PMRC. Results from numerous experiments will show how sap yield can be influenced by a range of circumstances, including mid-season heat waves, collection by new vs. used spouts, differences in taphole depth, and collection using more than one taphole per tree.

**Management Decisions that Lead to a Healthy and Productive Forest** ~ Immature trees with girdling roots, V crotches, cankers and other defects can develop into mature trees that are low in vigor or at risk for catastrophic stem failure. The presentation will illustrate trees with various defects, and explain how a program of early detection and removal could help land managers avoid having to cull large trees from the mature sugarbush. Also, a discussion of recent changes in the Vermont Current Use program that can affect sugarmakers. Bill Guenther, Windham County Forester (Bellows Falls) and Michael Snyder, Chittenden County Forester (Hyde Park).

**Effects of High Sugar Concentration by Reverse Osmosis on Syrup Chemistry and Flavor** ~ Abby van den Berg and Mark Isselhardt. An experiment was conducted at the Proctor Maple Research Center to investigate the effects of pre-concentrating sap with reverse osmosis (RO) to very high sugar concentrations (>20%) on the chemistry and flavor of maple syrup. Syrup was produced simultaneously with sap concentrated to 8 and 22% in identical, oil-fired evaporators on several dates during the 2009 production season. Results of analyses of the chemical composition and flavor of the syrup will be presented.



Mark Isselhardt of the Proctor Center will take some of the mystery out of operating a filter press.

**An Introduction to Filter Press Operation** ~ Mark Isselhardt, Proctor Maple Research Center. This introduction will cover the set up and use of plate filter presses. Topics to be covered include the

correct sizing, preparation, filtering and clean up of the filter press. The talk will also cover troubleshooting some common problems that arise when filtering.

**10+ Effective and Affordable Marketing Ideas** ~ Catherine Stevens VT Maple Syrup Marketing Director. If you're selling your own syrup, whether by mail, over the internet or from your location, effective marketing is the key to your success. Marketing isn't just ads or brochures--this workshop will give you more than 10 ideas for you to use to sell more of your maple syrup and value-added products. Many of the ideas are free and all are effective.



RO's come in all sizes. This one belongs to Dan Branon of Fairfield.

**Reverse Osmosis** ~ Brian Stowe, UVM Proctor Maple Research Center. A two session presentation that will cover getting the best performance from your RO. Part 1 will cover sizing, selection, and installation of an RO. Part 2 will cover the basics of running an RO. **Bellows Falls Only.**

**Customer Service 101: It's Not as Easy as You Think** ~ Barbara Bragg This workshop will explain some of the best ways to sell your syrup, and keep your customers. An interactive discussion; come and share some of your own stories. Barbara and Doug Bragg run Bragg Farm Sugarhouse and Gift Shop in East Montpelier. **Hyde Park Only.**



Harold Torre of Milton uses this big steam boiler in his evaporation system.

**Boiling with Steam** ~ Joe Russo, Belvidere sugarmaker, will discuss who can afford to switch to steam, how to build a steam system, where to acquire a steam boiler, and how to operate it. He will cover the many benefits of boiling sap with steam, including no burners (or burned pans), no fuel odors or wood debris, as well as his own boiling techniques. **Hyde Park only.**

**Invasive Plants and Their Danger to Sugarbushes** ~ **Tim Wilmot**, UVM Extension. While sugarmakers are understandably concerned about the potential devastation caused by invasive insects, invasive plants are also a serious threat to maple forests. Mechanical and chemical methods exist for controlling alien plants, but the best solution for forest landowners is to prevent an infestation from occurring. This presentation will discuss identification and control strategies for certain key invasive plants likely to be found in our woods.



George Cook's Sugarhouse in use.

**Techniques for the Beginning and Backyard Sugarmaker** ~ George Cook, UVM Extension Maple Specialist. A 2 hour presentation; Part 1 will cover topics from identifying the crop trees in the woods to the selection of the fuel to fire the arch. In the mix, you'll find sugarbush management, tapping practices, and collection and storage of sap, along with tools, building and equipment needs. Part II will cover the evaporation and processing of sap to the final finishing of maple syrup, including filtering, grading and packing and a discussion of off-flavors.

**Cooking with Maple** ~ Maple can be a lot more than pancake syrup. Learn how to make products that your family and friends will remember you for; plus add to your marketing appeal. Ruth Goodrich of VT will show how to make maple coated nuts and other treats (**Hyde Park**). There will also be a maple cooking program at Bellows Falls (chef and topic TBA).

## **Middlebury High School: January 16 Schedule for the day:**

7:30 - 8:30 ~ Registration; Coffee & Donuts

8:30 - 9:00 ~ Welcome (in Auditorium)

9:30 - 10:45 ~ Session I

11:00 - 12:15 ~ Session II

12:15 - 1:30 ~ Lunch & Trade Show

1:30 - 2:45 ~ Session III

3:10 - 4:15 ~ Session IV

4:15 ~ Door Prize Drawing

**Spout Update** ~ Dr. Tim Perkins Director of the Proctor Maple Research Center will be presenting his research and experimentation on the new check valve spout. Dr. Perkins will also touch on understanding sap flow.

**Cooking with Maple** ~ Brandon's Café Provence Chefs Robert and Laura will be demonstrating how cooking with maple syrup can be more than just baked beans and maple bread.

**The Beginning Sugarmaker** ~ Bill Scott, FFA Instructor Emeritus leads 2 sessions – from the tree to the sugarhouse and from the sugarhouse to the can. Attendees of the second session will also learn about good quality control measures and what's good and bad finished product.

equipment. Visit [www.rurdev.usda.gov/vt](http://www.rurdev.usda.gov/vt) for information about the grants.

**Modern Tubing and Sap Collection** ~ Canada's Jean Francois Goulet presents effective techniques for getting the sap from the tree to the sugarhouse or gathering tank using the most modern equipment.

**Electric Costs Hurting Your Bottom Line?** ~ Jenn Osgood from Efficiency VT and Brenda Spafford from CVPS helps sugarmakers determine the best, most efficient way to electrify your operation without breaking the bank.

**Not in Our Backyard!** ~ Massachusetts sugarmaker Tom McCrumb, South Face Farm, Ashfield, MA will speak to the devastation that the Asian Longhorned Beetle has caused in his state, how to identify it and steps that have been taking to protect against it.

**Modern Technology and Its effect on Quality and Flavor** ~ Quebec Maple Industry expert, Joel Boutin confronts the ideas of modern technology on quality and flavor. Does a high concentration or other processing give the same quality and flavor that we expect from maple syrup?

**Boiling 101** ~ Brad Gillilian from Leader Evaporator presents the basics of boiling whether in your backyard sugarhouse or in a 10,000 tap operation.

**So You Want to Use an RO** ~ Brian Stowe, Proctor Maple Research Center, explores the use of an RO from soup to nuts. Purchasing, installation, operation, and care.

**Evaporators and the Environment** ~ Rejean Laverdiere the designer and engineer behind the new Lapierre Force Five evaporator will discuss the evaporator, its effects on the energy usage and the environment.

**Getting the Most Out of Your Tubing** ~ While tubing looks easy, there is a right and a wrong way. Learn from Glen Goodrich, of Cabot, Vermont, the techniques in setting up a solid, workable mainline, creating drops, vacuum and plotting out the next line through the woods.

**USDA Energy Grant** ~ Catherine Stevens, VT maple syrup marketing director, helps sugarmakers work their way through the USDA Energy Grant. These grants may help in the purchase of new sugaring

*Timothy Wilmot*

UVM Extension Maple Specialist



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EXTENSION

**Vermont Maple Foundation President's Message:**



The New Vermont Mobil Sugarhouse

I would like to express a special thanks to all who had a part in raising funding to purchase and equip the new mobile sugarhouse. It was a fairly long process. We had a committee who worked to come up with a floor plan that will make it comfortable and efficient to work in. Another committee worked to come up with graphics. Now the governance committee of the Vermont Maple Foundation is working on some guidelines for the use of the unit by private maple producers or county maple associations. We are very excited about using this new tool to help spread the word about the goodness of Vermont Maple Products!

Jacques Couture, President, VMF



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## **2010 ~ 3 Maple Conferences**

### **Health of Sugar Maple in Vermont: 2009 Reported by the Vermont Dept. of Forests, Parks, and Recreation**

According to our annual survey of North American Maple Project plots, the health of sugar maples continues to improve. Presumably this is thanks to several years of ample precipitation, continuing recovery from the forest tent caterpillar outbreak, and no major pest problems. Containing the spread of Asian longhorned beetle remains a primary concern. Although infested trees continue to be detected around Worcester, MA, the eradication effort has made a substantial impact. While hundreds of beetles were collected there in 2008, less than thirty were collected last summer. One of the new infestations around Worcester was probably moved by firewood. To address this risk, Vermont State Parks have limited the use of firewood from more than fifty miles away, and out-of-state firewood is prohibited from National Forest campgrounds. We've also been surveying campgrounds visited by, and properties owned by, residents of the infested area in Massachusetts. To help with early detection, Vermont has been part of a broad regional effort to train volunteers and encourage others to be on the lookout for this insect. We have outreach materials available for sugarmakers interested in helping to spread the word.

For more information, visit [beetlebusters.info](http://beetlebusters.info), [vtforest.com](http://vtforest.com), or contact us at 802-241-3606.