

**Vol. 19, issue 2**

**Winter 2009/2010**

## From the President

As we get closer to another year gone by I would like to reflect on the MMPA happenings this year. The 2009 Maple season started off with a nice kickoff at Gould's Sugarhouse in Shelburne. The weather cooperated and gave us a well-running tap for the TV and press – the sugaring season was upon us. Many in the north-western part of the state were still clearing a multitude of downed trees, repairing tubing and tapping what trees they had left after the big winter ice storm. Others in the state were seeing low sugar content in their sap.

But, overall, Massachusetts pulled through with a fair season. A very wet spring made for some dismal months, then summer was here and so was our annual picnic. The picnic was held at Berkshire Sweet Gold in Heath, with a very informative look at a sugarhouse and farm going green with solar energy. Meanwhile, the ALB was still haunting the Worcester area with more indications of infestations which led to the quarantine area growing to nearly 70 square miles.

Fall came and the fair season started. Mass Maple booths at the Franklin County Fair and The Big E both did very well. The Big E had both record weather and record attendance which made for great sales at the Mass Maple Booth. Thanks go out to our booth Manager Lisa Baronas for her many countless hours of work and thanks to all the volunteers who helped with the candy, cream, cotton candy and sales – it doesn't go unappreciated!

The Board established two new programs: Two \$250 yearly scholarships to high school seniors and college student, and a \$500 yearly grant to a Massachusetts school with an agriculture program. We are in the process of launching a new web site (hopefully by the start of the 2010 maple season).

On behalf of the MMPA Board of Directors I would like to thank Tom McCrumm for his many years of service as Coordinator for the Association. Tom stepped down this past summer after 20+ years. Tom's knowledge of the maple world is an asset to our Association and much he has done will continue to help the maple world. Tom was also a huge part of ALB awareness. He has made it our focus for years, designing the ALB brochures we hope most use in their sugarhouse. Thanks, Tom, for all you have done.

So as we are nearing another maple season and most of you wonder..."How will the season be? What are the predictions?" I'll say it as Tom always says to me... I'll tell you at the end of April.

*Jim Desiardins, President*

### Mass Maple Association Board of Directors and Officers

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. With your feedback our association will continue to be strong and serve its members in the 21<sup>st</sup> century.

Name	Address	Telephone
Keith Bardwell	10 Westbrook Rd., Whatley, MA 01093	413-665-7347
Paul Boulanger	25 Turtle Lane, No. Andover, MA 01845	978-258-2889
Ed Parker	310 Amherst St., Granby, MA 01033	413-467-7751
David Gage	Old North Rd., Worthington, MA 01098	413-238-5922
Dave Unaitis	272 Conway Rd., South Deerfield, MA 01373	413-665-7347
Jim Burns	50 Ayer Rd., Harvard, MA 01451	978-456-8349
Keith Dufresne (V.P.)	113 Goshen Rd., Williamsburg, MA 01096	413-268-7509
Jim Dejardins – (President)	685 Franklin St., Belchertown, MA 01007	413-289-2189
Jeanne Boyden	642 South Deerfield Rd., Conway, MA 01341	413-369-4665
Winton Pitcoff - (Coordinator)	27 South Union St., Plainfield, MA 01070	413-634-5728

#### Other Contacts - (containers, etc.)

Mass Maple Warehouse	212 Reynolds Rd., Shelburne, MA 01370	413-625-2900
Devon Lane Farm Supply	Daniel Shays Highway, Belchertown, MA 01007	413-323-6336
Red Bucket Sugar Shack	Kinne Brook Rd., Worthington, MA 01098	413-238-7710
Mass Maple Association office	PO Box 6, Plainfield, MA 01070	413-628-3912
E-mail: <a href="mailto:info@massmaple.org">info@massmaple.org</a>	Mass Maple Website: <a href="http://www.massmaple.org">www.massmaple.org</a>	

# Boiling It Down....

Winton Pitcoff, Coordinator

This is my first newsletter as Coordinator of MMPA. I've spent the last few months getting up to speed on all of the systems that keep MMPA running. Tom has been very patient with me, answering many questions over and over again, and the board has been very supportive as well. Thanks to those members who have called, emailed or stopped by the booth at the Franklin County Fair to welcome me and talk about the Association. I'm looking forward to getting to know many more of you over the next year.

## What's Bugging Us All

Conversations about the Asian Longhorned Beetle (ALB) have dominated my first few months on the job. The spread of this insect that has already resulted in the removal of more than 25,000 mature trees in and around Worcester is a serious threat to our region, particularly to those of us who produce maple products. Federal and state resources have been provided to help contain the infestation, but the quarantine zone has grown to more than 70 square miles and new sightings of the bugs are reported regularly.

Remember that it is believed that the ALB was in Worcester at least 10 years before it was discovered, and keep this in mind as you walk your woods or drive through your community. Learn what to look for, and keep an eye out for these pests. Check our website at [www.massmaple.org](http://www.massmaple.org) for regular updates on the containment and eradication efforts, as well as links to identification resources and regulations. More information is available on page 13.

## Making the Grade

The International Maple Syrup Institute (IMSI) has been working on a standardized grading system for several years, and is finalizing an industry-wide proposal. It was reviewed by the MMPA board, which had strenuous objections and said so in a letter to IMSI. Canadian producers, however, along with many of the high producing U.S. states, are largely supportive of the proposal, which would set new grade standards, based on light transmittance, and replace Grade B with a 'Cooking Grade' category, among other changes. An earlier proposal to prohibit retail sales of Grade B syrup altogether was eliminated, due to opposition from MMPA and other industry groups. You can see the proposal on page 12, and the letter the MMPA board wrote at [www.massmaple.org/MMPAgradingletter.pdf](http://www.massmaple.org/MMPAgradingletter.pdf).

## When Tapholes Suck

The effect of bacterial contamination in tapholes dominated most of the technical sessions at the NAMSC annual meeting in Maine in October. Presenters detailed the results of extensive research on the effects on sap production of using new taps and droplines each season, for example (subsequent conversations that I've had with producers in MA revealed one with droplines at least 30 years old – can anyone beat that?). No surprise – new taps and drops mean less bacteria backflowing into your

tapholes and less risk of the holes healing prematurely. Check out the summaries of all of the technical sessions on page 8.

## Here Come the Regulators?

Keep a close eye on bills moving through Congress that are designed to address food safety. These measures have been spurred by outbreaks of food-borne illnesses from peanut butter, spinach, beef and other products, but the proposed legislation doesn't distinguish between different food products or different sized operations. There's talk of granting broad powers to the FDA to impose guidelines on food producers – including sugarmakers – and of charging fees to food producers that would be the same across the board. The way at least one of the bills is written, you'd pay the same annual fee for your 100 gallon a year sugarhouse as Coca-Cola would pay for all of their plants nationwide.

The Cornucopia Institute posts regular updates about these bills on their website ([www.cornucopia.org](http://www.cornucopia.org)) and advocates for measures to make the bills more friendly toward small-scale and family farms. The Farm to Consumer Legal Defense Fund also has good analysis of the bills ([www.ftclfd.org](http://www.ftclfd.org)). If you don't like what you see, take it up with your Representatives and Senators.

## Educating our Customers...

Those who attended the summer picnic were treated to a great talk by Brooks McCutchen of Berkshire Sweet Gold Maple Farm, on the challenges and opportunities of marketing maple products. "Maple does not have breadth of the market it used to have, when it was the preferred household sweetener," he pointed out, adding that restoring our product to past levels of use requires that we each make an effort to educate our customers. "It's all about an informed public that understands the product and understands that what they eat impacts farms. We need to shift the language of what our product is, and think outside the topping." For those of you who missed the picnic, I asked Brooks and Janis to write up some of their ideas for the newsletter, and their article is on page 10.

## ...And Each Other

One of the topics that comes up a great deal in my work with farmers in all areas of agriculture is mentoring. Many farmers shy away from the concept, afraid that it means taking time away from their work to hand-hold an inexperienced person who will slow them down, break and spill things or, even worse, eventually set up their own operation and become a competitor.

But when it's not a formal arrangement, I can attest to the fact that some farmers, especially sugarmakers, can also be extremely generous when it comes to helping a newcomer. I had absolutely no experience with sugaring when J.P. handed me a cordless drill and a pair of snowshoes, told me to get out of the truck, pointed into the woods and said he'd be back for me in a couple of hours. Two years later, when I bought a rusted old 2x4 with a flat pan from Jeff and LeAnne, they spent several hours

answering my questions and offering advice. That winter I bought buckets from Tom, who spent time on a bitterly cold day walking me through his sugarhouse and explaining every step of the process. Each time I hold a tool a certain way, set a tap, or do any one of the hundreds of little steps involved in sugaring I can still remember who first showed me that process. Those connections that happen, whether you call it mentoring, teaching, answering questions, showing off your skills, making a sales pitch, or just letting someone tag along, are the best example of how we support each other, and are ultimately what will sustain this craft beyond our lifetimes.

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## Mark Your Calendar!

### Free Transportation to NY State Maple Conference for MMPA Members

**Saturday, January 9, 2009**

Verona, NY

For more information on the conference, see <http://maple.dnr.cornell.edu/>. To reserve a spot on the bus, contact [winton@massmaple.org](mailto:winton@massmaple.org); 413-628-3912.

### Mass Maple Association Summer Picnic

**Sunday July 25, 2010**

Hosts: Pete and Beth Phelps

Sweet Brook Farm

580 Oblong Rd., Williamstown, MA

10:00 a.m.

Other Berkshire County producers interested in opening their sugarhouses for tours that day, please contact [winton@massmaple.org](mailto:winton@massmaple.org); 413-628-3912.

### The Big E

**September 17-October 3, 2010**

It's never too early to set aside time to volunteer at the MMPA booth at the Big E!

### Annual mtg. of the North American Maple Syrup Council & the International Maple Syrup Institute

**October 20-24, 2010**

Stratford, Ontario

Details coming soon.

## Massachusetts Sugarmakers Claim National Prizes

**Congratulations** to the following MMPA members who took home awards from the NAMSC contest in Bar Harbor in October.

Photo Contest: Creative Maple Photography  
3<sup>rd</sup> place, **Russ Davenport**, Shelburne

Maple Cream Contest – 12 entries  
3<sup>rd</sup> place, **Boyden Bros**, Conway

Maple Syrup Contest – 63 entries  
US Light Amber or Canadian Light  
1<sup>st</sup> place, **Davenport Maple Farm**, Shelburne

US Medium Amber or Canadian Light  
3<sup>rd</sup> place, **Mike Girard**, Heath

## MMPA is Hiring

The Massachusetts Maple Producers Association is seeking a manager and assistant manager to run the Association's booth at the Big E. Candidates will need to be very organized, able to manage a large number of volunteers, and able to be at the Big E September 17-October 3. Please contact [winton@massmaple.org](mailto:winton@massmaple.org) or 413-628-3912 for more information.

## PLEASE NOTE NEW MAILING ADDRESS

The new mailing address for MMPA is: PO Box 6, Plainfield, MA 01070

Phone (413-628-3912), email (info@massmaple.org) and website (www.massmaple.org) remain the same.

## Come to Verona!

MMPA is once again sponsoring a bus to provide free transportation for any member who wishes to attend the New York State Maple Conference in Verona, NY, on Saturday, January 9. This is always an excellent conference and members who have attended in the past have learned a great deal. See <http://maple.dnr.cornell.edu/> for full details on all of the workshops, covering everything from research to marketing to production to forestry and more.

Contact [winton@massmaple.org](mailto:winton@massmaple.org) or 413-628-3912 to reserve your space on the bus.

## Nutritional Information for Maple Syrup

The New Brunswick Maple Syrup Association has produced a great resource, detailing all the nutritional information for maple syrup and comparing it with other sweeteners and common foods. It is available online at: [http://maple.infor.ca/nutritional\\_facts](http://maple.infor.ca/nutritional_facts)



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## NY Task Force Releases Report

The New York State Maple Task Force completed its work in October, concluding that there is tremendous potential for growth in production and an unmet demand for New York maple products. Currently, New York State producers only utilize .5 percent of the nearly 300 million potential taps. According to one Cornell study, if New York were to tap its maple trees at the same rate that Vermont does, New York could quadruple its current production level to 1.2 million gallons of maple syrup annually.

The group, which was charged with addressing the issues facing the maple industry in the State, also identified several obstacles that limit the growth of the industry. The group noted that of the 1,500 maple producers in New York State, well over half of them are small scale producers or hobbyists. With an industry primarily made up of small producers, the industry lacks a unified identity for marketing purposes and is unable to fill large orders requested by major retailers.

To overcome these challenges and move the industry forward, the Task Force is making the following recommendations to the Commissioner, some of which they have already started working on:

1. Increase the number of producers and the size of their operations through education, financial incentives, and technical assistance.

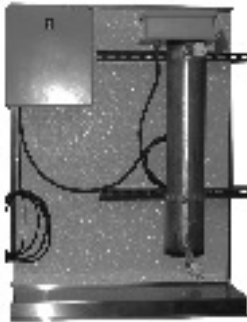
2. Increase the amount of land used for maple production by educating land owners about the benefits of leasing, and investigating the options to tapping sugar maples on state land.
3. Increase productivity of current producers through the use of new technology, such as reverse osmosis machines and new check-valve spout adapters. The Task Force looked into the USDA Rural Energy for America Program grants and this fall, 15 New York maple producers received a total of \$89,833 in grants for reverse osmosis and energy efficient upgrades.
4. Identify a large bottling plant and develop a marketing strategy and brand for New York maple products to market and fill large orders from major retailers. Through the New York State Maple Producers Association, a voluntary container assessment has been established to help raise funds for such work, and a new marketing campaign, "New York Maple. Taste the Tradition." was unveiled during the New York State Fair in August.

The Task Force was created in March 2009 to address the issues facing the maple industry in the State. The group of thirteen industry representatives met three times and heard numerous presentations from state and federal government agencies, Cornell and a marketing firm. A copy of the full report can be found at <http://www.agmkt.state.ny.us/ad/2009-Maple-Task-Force-Report.pdf>.

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- 1 grundfos sap pump, 1 hp, with controls in fine condition \$320

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Brooks McCutchen, Berkshire Sweet Gold Maple Farm  
888-576-2753, bsgfarm@peoplepc.com



FOR SALE: Syrup Canning Tank, Small Bros., 40 gallon, 4-nozzles, soldered SS, cover, sight gauge, 16" deep x 34" wide x 24" high, made for use on LP gas burners, \$ 400., photos available, Mike Girard, Heath, MA, mgirard@simscoft.com or 860-658-5790 days

# Resources

## MDAR Launches New Blog

The Great Outdoors blog ([www.mass.gov/blog/environment](http://www.mass.gov/blog/environment)), run by the Departments of Agricultural Resources (DAR), Conservation and Recreation (DCR), and Fish and Game (DFG) provides an opportunity for sugarmakers to participate in conversations about Massachusetts agriculture and natural resources.

## Agricultural Business Planning Courses Offered

The Massachusetts Department of Agricultural Resources (MDAR) is offering the widely acclaimed NxLevel(c) "Tilling the Soil of Opportunity" (TTS) agricultural business planning course. This innovative, farmer friendly course focuses on existing agricultural businesses that will benefit from an organized look at their current operation in order to plan for growth and change. Courses are sited wherever enough participants can be gathered, if you are interested in having one of these courses in your area please contact Rick Chandler (413) 548-1905 or [rick.chandler@state.ma.us](mailto:rick.chandler@state.ma.us).

## 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 3 sizes of glass maple leaf bottles and 5 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, coloring books, labels, hang tags, producer manuals, instructional and educational videos, etc.

**HOURS:** The warehouse is open 7 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.

## 2010 UMass Extension Green Directory

The 2010 UMass Extension Green Directory is a comprehensive guide to educational resources for Massachusetts Agriculture industry professionals. The Directory is available online at [http://www.umass.edu/agland/services/pdfs/green\\_directory\\_2010.pdf](http://www.umass.edu/agland/services/pdfs/green_directory_2010.pdf). For a hard copy, call (413) 545-0895, fax request to (413) 577-1620, or Email [eweeks@umext.umass.edu](mailto:eweeks@umext.umass.edu).

## Federal conservation assistance available to Massachusetts farmers and forest land owners

Massachusetts farmers and forest land owners who would like to address soil and water conservation concerns on their land should apply by January 15, 2010 for financial and technical help through the federal Environmental Quality Incentives Program (EQIP), administered by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS).

Read more at

[http://www.ma.nrcs.usda.gov/news/news\\_EQIP\\_sign-up\\_2010.html](http://www.ma.nrcs.usda.gov/news/news_EQIP_sign-up_2010.html).

## Federal program available to help Massachusetts landowners improve wildlife habitat

Massachusetts landowners who would like technical and financial help protecting wildlife habitat and valuable ecosystems on their property should sign-up for the federal Wildlife Habitat Incentive Program (WHIP) by February 1, 2010. WHIP is a voluntary program administered by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS).

Read more at

[http://www.ma.nrcs.usda.gov/news/news\\_WHIP\\_sign-up\\_2010.html](http://www.ma.nrcs.usda.gov/news/news_WHIP_sign-up_2010.html).

## Technical Sessions Presented at 2010 NAMSC Meeting

*The technical sessions at the North American Maple Syrup Council meeting in Bar Harbor in October were excellent. Below are short summaries of each one, including the names of the speakers for you to contact if you'd like more information. -- WP*

### **Topic: How Some Phenomena Effect Sap Flow Under Vacuum**

**Speaker:** Mr. Tim Wilmot, University Vermont Extension Maple Specialist

**Summary:** Sap flows from tap holes in maple due to the pressure difference between the inside and the outside of the tree. Sap yield can be influenced by a range of circumstances. Tap holes of .75" in depth when compared to 1.5" produced 66% sap. When a single tap in a 17" – 20" tree produced a gallon of sap, two taps produced about 57% more. Timing of tapping does influence the quantity of sap. The south side a tree can be 10-15°F warmer than the north. New spouts produce more sap; the last week of the season shows the greatest difference.

### **Topic: Paints for Lead Containing Equipment: A Practical Solution?**

**Speaker:** Dr. Gary Graham, Associate Professor Ohio State University Extension

**Summary:** Older, lead containing equipment can be expensive to replace. A number of paints were tested including: Carboline, Plasguard, Plasite and Novolac. All of these must be cured in an oven at a high temperature for a minimum of four hours. This is not an economical solution for old equipment.

### **Topic: What IS that in My Syrup?**

**Speaker:** Dr. Beth Calder, Extension Food Science Specialist, University Maine Cooperative Extension/Kathryn Hopkins, University of Maine Extension

**Summary:** A fungal mass has been discovered in samples of pure maple syrup. These samples were packaged under approved conditions and the syrup is of proper density. "When in doubt throw it out." If you find an example of this mass contact one of the speakers.

### **Topic: Asian Long-horned Beetle**

**Speaker:** Christine Markham, National Program Director for ALB Eradication Program with USDA APHIS PPQ

**Summary:** Eradication of ALB works. ALB has been eradicated from Illinois. 74 square miles are quarantined in Wooster Massachusetts. 800,000 trees need to be surveyed. 26,000 have been removed. A nationwide program is being developed for school systems.

### **Topic: Update on Research at Proctor Maple Research Center**

**Speaker:** Dr. Timothy Perkins, Research Associate Professor Department of Plant Pathology, University of Vermont

**Summary:** Tubing systems lose about 10% in production per year. Spout adapters show some improvement of production. Replacement of droplines and spouts show more improvement. Microbes cause tap hole drying. New spouts with a check valve show good promise. A study was conducted using antimicrobial silver in the fitting and dropline. The second year of use showed very little difference. Future projects include: How much sap is too much? Will the check valve spout allow earlier tapping?

### **Topic: Energy Efficiency of Fuel Oil Evaporation Systems Used in the Sugarhouse**

**Speaker:** Dr. Alfa Arzate, engineer, researcher Centre Acer, QC

**Summary:** The evaluation of energy efficiency of maple evaporators is important to monitor and improve. Presentation is on the Center Acer website: info@centreacer.qc.ca

### **Topic: Effects of High Sugar Concentration by Reverse Osmosis on Syrup Chemistry and Flavor**

**Speaker:** Dr. Abby van den Berg. Research Associate University of Vermont Proctor Maple Research Center, Underhill Center, VT

**Summary:** An experiment was conducted at the Proctor Research Center to investigate the effects of pre-concentrating sap with reverse osmosis (RO) to very high sugar concentrations (greater than 20%) on the chemistry and flavor of maple syrup. 8% sap concentration was compared to 22%. The test was repeated 5 times using identical oil-fired evaporators during the 2008 production season. Results of analysis of the chemical composition and sensory evaluation showed negligible difference.

### **Topic: Filtration in the Production of Pure Food Products: Innovative Solutions for the 21<sup>st</sup> Century**

**Speaker:** Peter Nykoluk, Graystone and Associates, London, ON

**Summary:** A generic presentation of filtering food. When doubling the size of the filter it is possible to filter three times the volume of product. A cartridge filter should have a knife edge indent of the ends when used. Some cartridge filters bend with heat. Do not clean these filters, they must be thrown away. Use prefilters. Cloth filters have 350 micron holes when sewn.



**Topic: Toward an Improved Model of Sap Exudation in Sugar Maple**

**Speaker:** Dr. Richard Jagels, Professor Forest Biology in the School of Forest Resources, University of Maine, Orono, ME

**Summary:** Two conflicting theories have been proposed to explain how high positive sap pressures develop in sugar maple stems when temperatures fluctuate around freezing. The Milburn-O'Malley theory proposes that pressures develop as a consequence of physical parameters associated with phase changes (freezing/thawing) of sap. In contrast, the osmotic theory requires the involvement of living cells and sucrose in developing pressure differences across an osmotic barrier. Dr. Jagels supports the osmotic theory.

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**Topic: The Influence of Tap Hole Sanitation Practices on Sap Yield**

**Speaker:** Steve Childs, New York State Maple Specialist, Cornell University, NY

**Summary:** Research over the last four maple seasons has clearly shown that keeping microbe laden sap from re-entering the tap hole from contaminated old spouts and drop lines can greatly increase sap yield. Experiments have shown that replacing seven year old and older spouts and drop lines in both gravity and vacuum systems have increased sap yields more than 100%. Experiments with check valves and micro vented spouts show similar reductions in yield loss due to taphole contamination. Sap flow differences show up fairly early in the season with the greatest divergence coming when taps with old spouts and drops dry up significantly sooner than where the tap hole was protected from contaminated back flow.

**Topic: Producer & Landowner Perceptions of the NY Maple Industry**

**Speaker:** Mike Farrell, director of Uihlein Forest, Cornell University, NY

**Summary:** Survey of 2000 maple producers and 1600 landowners in NY to determine future directions for the maple industry. There is room for education of non-maple woodlot owners.

**Topic: Invasive Plants and Their Danger to Sugarbushes**

**Speaker:** Tim Wilmot

**Summary:** Alien plants to the native hardwood forest include: buckthorn, barberry and oriental honeysuckle. These can make access to the sugar bush difficult and can have long term negative consequences for maple regeneration. The best solution is to prevent an infestation from occurring.

## Variance Harvesting/Processing/Marketing & the Price-Point Spread: How Customers and Their Maple Farmers can Co-Generate Sustainable Agriculture and a Fair Wage

**S**ustainable: it's a word that gets a lot of airplay these days. Below, we lay out an argument that in agriculture—in this case, maple agriculture-- sustainable behavior must be situated between consumers and farmers in order to anchor connections between food production and consumption that can respond to the growing environmental crisis. There are many compelling longitudinal scientific arguments describing rapid climate change: here in Western MA, according to foresters and in our experience, these are dramatically changing times for our forest biomes. The ice storm that hit our region last December is only the latest element in a series of weather and biological occurrences over the last decade which must be considered in relation to each other to understand the long-term health of a forest. Our customers often ask about maples disappearing due to climate change and they wonder how **we**, the harvesters, will survive when our way of life is no longer tenable. One way we begin to answer this query is to cite the words of farmer and poet Wendell Berry, to assert that everyone, no matter where they live, participates in agriculture: “*eating is an agricultural act*”. Food is a basic pathway for all of us to engage the environment and changes underway and to work together, as farmers and consumers, to develop sustainable practices.

In this article “variance harvesting/processing/marketing” means all of the different elements and activities that go into producing and marketing maple syrups as a food stock. These can include the following:

- The centuries-long social history of maple as a household staple with many uses; as both a political and economic competitor of cane sugar and as unique to this part of the world yet shaped and characterized by regional diversity.
- The physics, chemistry and biology that occur during growth, harvesting and processing.
- Management & harvesting practices that enhance variance such as organic practices and conservation practices which also support forest ecosystem biodiversity.
- Influences from weather and climatological shifts, including climate change.
- Techniques used to process the crop into a food stock where variance can be enhanced including energy conservation strategies that can refine how heat is applied.
- And perhaps most importantly, how customers' general understanding of these variant processes are reflected in social practices, that is, the way they talk, shop and eat food. As journalist and food theorist Michael Pollan often notes “consumers vote with their forks.”

Potentially, science-based and historical facts drawn from these elements can be communicated to customers as part of a market relationship beneficial to both them and farmers. For example, when customers are informed and knowledgeable about maple agriculture and the ways the crop has been

harvested and processed, their selection and consumption can become more personal, meaning intellectually, emotionally and socially invested. As a result, this knowledgeable customer base can influence how farmers operate on their land and produce their syrups, and ultimately can support a fairer wage for farmers: all in all, a more sustainable agriculture. It is this set of relationships which we define as “**value enhancing**” a crop.

Value enhanced agriculture supports a broader “price-point spread” where substantial differences exist between lower-priced commodity products and higher-priced artisanal food stocks. For example, consider the following different agricultural products. In the United States a relatively robust price-point spread exists within wine, cheese, coffee & vinegar markets and a relatively flat price-point spread is often found in milk, chicken, potatoes, corn and wheat. In some markets, like chicken and beef, price-point spreads are expanding as customer crop/processing knowledge increases and they ask for free-range birds and grass-fed beef. While “**value adding**” to a crop can also expand the price-point spread of food stocks, it does not necessarily offer the long term advantages that support a healthy price point spread and sustainable practices. For example, in cases where the emphasis is on packaging, price-point advantages are self-limiting as customers “label shop” but do not acquire any significant knowledge about the food. If, as farmers, our goal is for customers to engage with their food in creative/healthy ways that enhance fair wages for farmers and sustainable agricultural practices, we must return to fundamental, science-based information that supports meaningful relationships between consumers, harvesters, land and water.

Maple syrup markets currently exhibit a relatively flat price-point spread, occurring regardless of seasonal crop yields increasing or decreasing internationally. We consider this commodity price compression to fundamentally stem from customer's limited understanding of the agriculture and narrowly defined uses of maple. For example at BSG-farm we interact with over 40,000 potential customers annually in direct markets along the Eastern seaboard. The vast majority of this public erroneously consider maple to be one single strong flavor, highly fattening, and just for pancakes. If this perception were left intact few of them would taste our syrups let alone make a purchase. Numerous individuals may also inform us that they hear Grade B is considered the premium and most costly syrup and the only one to cook with. If individuals know about “grades” of syrup they typically consider them to come from the tree or from “cooking down”.

Customers both reflect and drive trends in a marketplace. Last year Grade B surpassed other syrup prices at stores like Trader Joe's, (A historical first?) and now perhaps a majority of Northeast farmers blend Grade B with

colors like Light Amber to produce the consistent breakfast food tastes of Grade A Medium & Dark. Producers operating within this commodity food structure, regardless of their farm size, will tend to carry wholesale/retail accounts larger than they can harvest for because price-point spreads are flat and profit margins are correspondingly tight. They then may supplement with bulk syrups from distributors to be packaged under their label guaranteeing supply to stores and protection of highly competitive shelf-space.

Direct market, family-scale farms provide a portal where customers can learn the science facts and history of an agriculture and thus employ farmers using sustainable practices and seeking fair wages. At BSG-farm effective marketing relies on science-based “framing concepts” that engage customers and invite them to participate as core drivers of the farm's efforts to harvest and process syrups in ways that “value enhance” the crop. (We do also practice value-adding which we consider to be a secondary and sometimes problematic market layer.)

To follow are some key points we often use when inviting customers to taste BSG Farm's “Single-Crop, Single-Batch” maple syrups at direct market events which may help illuminate aspects of the re-framing process. These points are drawn from varied sources like the Maple Syrup Producers Manual, UVM Proctor research, the Nearing's 1950 Maple Sugar Book and experienced maple farmers who have taught us over the years:

- That maple is arguably ours and Canada's oldest agriculture, properly a competitor of cane sugar. Maple often out-sold cane sugar in many communities and continues today to be a versatile ingredient for sweetening, glazes, reductions or to balance sour and savory seasonings on meats, in vegetables dishes, and much more.
- That maple is a unique wild forest harvest whose tastes are composed of complex tree chemistry, fermentation by numerous yeast strains outside the tree responding to the weather, and the farmer's processing techniques where bio-chemistry (like the Maillard reaction versus caramelization [pyrolysis]) will vary widely and influence flavors depending on training and market structure.
- That maple is lower in calories than they presume, with fewer calories than honey, agave and cane sugar. That cane sugar is non-nutritive and continues to price low as it always has based on abusive labor and environmental practices. In contrast, maple syrup is high in minerals, particularly calcium, and has a low glycemic index. Maple harvesters seek a fair wage through sustainable harvesting in a wild ecosystem.
- That maple emerges from the forest as a potential array of color/flavors as diverse as an ale to a stout, or white to red wine, with complex finish flavors. That “Grade A”

typically involves blending these colors, passively or actively, to better suit the generic standards of wholesale markets which created the modern breakfast-food focus for the crop.

- That at BSG-farm syrups are managed in 45 minute “batches” of exposure to heat where color/flavors can change dramatically within a given day. Customers are offered sample tastes while we market the science of the crop. (80% of energy for harvesting/processing is solar powered, 6/10 of one gallon of oil per gallon of syrup produced).
- That healthy agricultures depend on an informed customer base and usually exhibit a range of processing methods from homogenized commodity products to variance harvested/processed food stocks which knowledgeable customers can choose between and thus leave “label shopping” behind.
- That there is an embedded relationship between customer knowledge, healthy eating, sustainable agriculture and a

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***The vast majority of the public erroneously consider maple to be one single strong flavor, highly fattening, and just for pancakes. If this perception were left intact few of them would taste our syrups let alone make a purchase.***

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shift in customer resources away from other commodities and towards carefully handled foods. (Currently Americans put only 9% of their capital liquidity into food, a worldwide low.)

BSG-maple farm has been in operation for 12 years and provides the sole source of income for a family of five harvesting 4,600 maple trees occupying land that is, as for other farmers, a wild ecosystem. Over this brief time, we have seen significant changes on the farm due

to environmental stresses and are compelled to locate our experience in the broader context of these times. This work in progress continues to draw assistance from other farmers, environmental scientists, researchers and those involved in the realms of food politics and harvesting policy to work towards enhancing strengths of family-scale farming and direct markets: by establishing community relationships that support healthy eating, sustainable harvesting and land a fair wage for farmers. We welcome any dialogue or reactions you would like to offer to this paper.

*Janis & Brooks have recently been presenting on these themes to Northeast farmers at the Mass. Maple Association's annual picnic and at the Mass. Dept. of Agriculture's 2009 Harvest New England Conference. They will run a workshop on variance agriculture this January 2010 at the Northeast Organic Farmers Association Conference in Worcester. (See [www.nofamass.org](http://www.nofamass.org) for schedules.) Janis & Brooks are available to consult with farmers building robust fair-wage & sustainable direct-market practices for their crops.*

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## Standard International Maple Grades

The Board of Directors of IMSI passed a unanimous motion supporting the implementation of standardized international maple grades and nomenclature for the maple syrup industry. Dave Chapeskie Chair of IMSI's Maple Grades Committee tabled an amended proposal for standardized international grades at IMSI's Board of Directors meeting and the Board passed a motion with unanimous support to move to implementation of the new grading system. The standardized international grades and classification system is outlined below.

### Grade A (No retail restrictions - 4 classes)

<u>Light Transmission Class</u>	<u>Taste</u>	<u>Colour</u>
75 or greater %Tc	Delicate	Golden
50-74.9% Tc	Rich	Amber
25.1-49.9 % Tc	Robust	Dark
25 or less % Tc*	Strong	Very Dark

### Processing Grade

(Processing Use) All off-flavored syrup

Not for retail sale

Packed in containers of 20 litres (5 Gallons or larger in size)

*\* Labeled for cooking. Proposed Grade A status for this syrup assumes producer and packer ability to distinguish between off-flavoured syrup AND syrup which has a strong or very strong taste and 25% Tc or lower. The grade designation for this class of syrup will be investigated further by IMSI Grades and Nomenclature Committee.*

The amended proposal was very well received by attendees in both IMSI or NAMSC meeting forums in Bar Harbor. This proposal was the final outcome of a meeting of industry stakeholders including representation from maple producer and packer organizations in Canada and the United States which was held in Bar Harbor, Maine. IMSI Maple Grades and Nomenclature Committee deliberations and maple stakeholder comments and advice from recent consultations were important factors considered in arriving at the amended grades proposal as outlined above. This Internationally Preferred Option (IPO) incorporated light transmittance class boundaries proposed earlier by the Vermont Maple Industry Council (VMIC). Other options for light transmittance class boundaries were also considered during deliberations.

IMSI's Maple Grades and Nomenclature Committee will now prepare a final report incorporating amendments to the proposal provided earlier to IMSI members along with a plan for implementation of the new standard grading system including communications, regulatory follow-up, an appropriate transition period between the old and the new systems and other aspects. When this report is finalized later in the fall, it will be circulated to IMSI members and NAMSC Delegates for comment. IMSI's Board of Directors will review any additional comments or suggestions received from IMSI members and others at their next Board of Directors meeting in February 2010 in Burlington, Vermont. The implementation plan will also be discussed at the February meeting.

*Dave Chapeskie*

Sugarhill

## Asian Longhorned Beetle Resources

The **Massachusetts ALB Eradication Program** site (<http://massnrc.org/pests/alb/>) has many resources, including identification tips with photos, updated news items, regular newsletters, and information about regulation and compliance.

The **Don't Move Firewood Campaign** (<http://www.dontmovefirewood.org/>) is an active effort to stop the spread of ALB by making people aware of the dangers of moving firewood from the quarantine zone.

**BeetleBusters** is also a good resource for aid in identifying the beetles. (<http://www.beetlebusters.info/home.php>)

## Welcome to New Members!

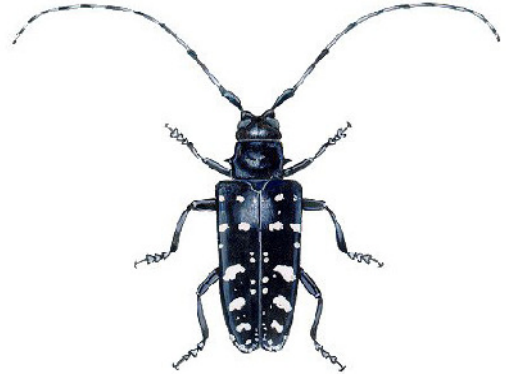
Bryon Lewis, Monson, MA  
Rodney & June Lynds, Plainfield, MA



GPB

## Key ID Features of the Asian Longhorned Beetle

- The Asian longhorned beetle is 0.75" - 1.5" long with antennae that are 1 to 2 times its body length.
- Adults are shiny black with irregular white spots.
- Antennae have alternating black and white bands.
- Feet and antennae may have a bluish tinge.
- Adults are active from early summer through mid-fall.
- Adult females dig bowl-shaped holes in the bark, typically about 1/2 inch (15mm) in diameter, to bury their eggs in. These "oviposition pits" often appear orange in color.
- Larvae can grow to be 2.4 inches long (60mm), with many-segmented, off-white bodies and brown mouthparts. They burrow beneath the bark and are rarely seen.
- "Frass" or sawdust/wood shavings may be apparent around the base of infested trees. Severely impacted tree may have exposed wood where larval feeding galleries (tunneling) is visible.



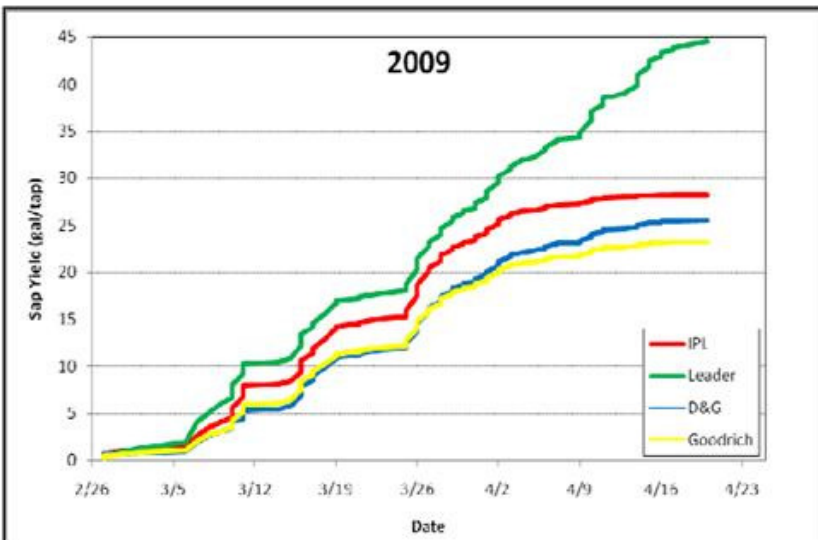
# Leader Evaporator's New Check Valve Adapter!!!



Designed by Dr. Tim Perkins at the University Of Vermont's Proctor Maple Research Center Leader Evaporator's Check Valve Adapter is a Patented new concept for tapping that will increase your sap production by 50 percent or more. Through research done by Dr. Perkins and the staff at the Proctor Center you can see below the results of the new check valve adapter on a leader evaporator designed tubing system as compared to other tapping concepts including all new drop lines. The system works for multiple reasons:

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**In 2009 Testing Leader Evaporator's Tubing System with The Check**



**Valve Adapter Collected over 40 gallons of sap per tap and produced over a gallon of syrup.**

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