# A BEGINNER'S GUIDE on Curyon



WISCONSIN MAPLE SYRUP PRODUCER'S ASSOCIATION

www.wismaple.org

# **Wisconsin Maple Syrup Producers Association**

In the 1950's a small group of maple syrup producers formed the Antigo Producers Maple Group, this group later transitioned into a state organization now known as The Wisconsin Maple Syrup Producers Association (WMSPA). Adin Reynolds led the group to found the WMSPA and the first annual meeting was held in Antigo on May 4th of 1964. The first officers were Milton Thibaudeau – President; John Roth – Vice President; and Adin Reynolds – secretary/treasurer. The group's main purpose was to promote and sell Pure Maple Syrup. Under the leadership of dedicated presidents, executive directors and members the organization has grown in size and in its mission. While the WMSPA still has promotion of Pure Maple Syrup at its core, it has evolved to help producers with many other issues, ranging from teaching new technologies to working with the government on maple related issues.

The goal of Wisconsin Maple Syrup Producers Association is to help our members make and market the finest pure maple syrup in North America. We accomplish this by promoting maple syrup and educating our producer members. In addition the WMSPA:

- Works with state agencies to promote legislation that recognizes our hard-working producers.
- Organizes and promotes a First Tapping event to bring attention to the maple season.
- Members work with local festivals and events to increase visibility of our industry.
- Sponsors a booth at the WI State Fair that allows our members to promote and sell Wisconsin's finest maple syrup.
- Hosts an annual Fall Tour which allows our members to visit other maple producers and businesses around the state.
- Works with National and International Maple organizations including NAMSC and IMSI to promote and support maple production, education, and research.
- Produces a Newsletter, Wisconsin Maple News, to keep our members up to date on current events.
- Web site (www.wismaple.org) is used to promote our producers and provide a means to keep everyone informed of current activities.

It is our hope that this "Beginner's Guide" will be helpful to our members as they start and grow their business and love of Pure Maple Syrup. Please visit our association website for more information and how to join: www.wismaple.org or contact: director@wismaple.org



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# Beginner's Guide Contents

| Chapter 1pg 7 Identifying a maple tree  | Chapter 6pg 20 Testing syrup  |  |  |
|---|---|--|--|
| A. types of trees B. maturity of a tree C. how to identify a maple D. marking trees                                       | A. syrup hydrometer B. hot test, cold test C. test variations D. refractometers |  |  |
| Chapter 2pg 9 When to tap a maple tree  | Chapter 7pg 23 Filtering syrup  |  |  |
| A. time of year<br>B. helpful tips  | A. filtering with Orlon<br>B. filtering with a filter press                     |  |  |
| Chapter 3pg 10 Tapping a maple tree   | Chapter 8pg 26 Bottling syrup   |  |  |
| <ul><li>A. picking your spot</li><li>B. what you need</li><li>C. drilling and tapping</li><li>D. collecting sap</li></ul> | A. bottles and jars B. important reminders  Chapter 9pg 27                      |  |  |
| Chapter 4pg 13 Gathering sap  | Cleaning up for the season  A. Orlon care                                       |  |  |
| A. buckets, sap sak holders, or pails<br>B. sap sak holder assembly<br>C. rule of 86                                      | B. spouts, pails and covers<br>C. sap saks<br>D. syrup pan                      |  |  |
| D. from tree to pan   | Chapter 10pg 28<br>Helpful Resources  |  |  |
| Chapter 5pg 18  | A licensing information   |  |  |
| Cooking sap   | A. licensing information B. informational websites                              |  |  |
| A. boiling: pans and burners<br>B. finishing your syrup   | C. candy recipe   |  |  |

# **Identifying A Maple Tree**

# **Types Of Trees**

There are thirteen native maple species in North America, but only about four of those are commonly tapped. The most commonly tapped species include the sugar maple, black maple, red maple and silver maple.

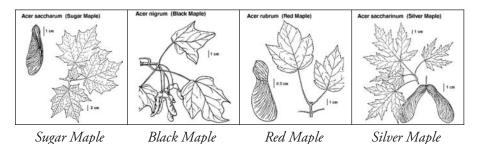


Illustration from: http://www.waterfordvillage.org/nature-garden/trees-maples.htm

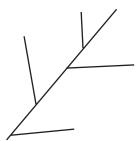
# **Maturity Of A Tree**

It is important to tap more mature maple trees and leave the smaller ones to develop and grow into healthy sap producers. There are no stringent guidelines to follow, but a good rule of thumb is to tap trees that are larger than 10 inches in diameter at chest height.

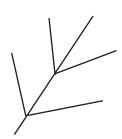
# **How To Identify A Maple**

It is difficult to identify a maple tree without leaves, but it can be done. Mature maples are large dense trees with rounded crowns. The trunks are usually straight and free of branches for two-thirds or more of the height. The bark of a mature maple is usually light to dark grey with vertical smooth strips that may curl. Look for a tree that has its branches, buds and leaves in opposite position, where the twigs are arranged in pairs on opposite sides of a branch, rather than alternate position. (see graphic on pg. 6) During the growing season, the buds and then leaves are arranged in pairs on either side of the twigs. Other trees have similar branch patterns, but the branches and stems on a maple tend to be fine rather than coarse.

# Alternate position (non-Maple)



# Opposite position (Maple)



# **Marking Trees**

It is most efficient to identify and mark your trees in the summer or fall when you can easily determine what kinds of trees you have by looking at the leaves. A great way to mark your trees is with a forestry approved marking paint such as Nel Script, Nelson Tube Marker. This can be ordered online at *www.nelsonpaint.com*.

# When To Tap A Maple Tree

#### **Time Of Year**

The time to tap is in the spring of the year when the weather is above freezing during the day and below freezing at night. The exact calendar date varies greatly from region to region and year to year. Begin by watching the forecast and look for an extended period of desirable weather. One day of perfect weather may cause excitement but may not lead to an extended thaw-freeze cycle. Sap generally runs from early February to late March in the more southern states, and from early March to mid-April in the northern states and provinces.

Because tap holes can start healing as soon as they are drilled, by tapping your trees too early you risk missing out on sap flow later in the season. By tapping your trees too late you may miss the early sap flows. Syrup produced earlier in the season is usually higher quality than syrup that is produced later in the season.

# **Helpful Tips**

Watch what the experts in your area are doing. Experts are those people who have been tapping trees for a long time and know what to look for in local weather patterns. Don't rely on national weather outlets. Your weather information must come from local sources as current, local weather greatly impacts the sap run.

Also, the temperature in wooded areas are colder than those out in the open. The difference can be as much as 8 degrees Fahrenheit. If you're considering tapping on a 40 degree day, the temperature in the woods may still be 32 degrees. Tap one tree that is representative of your lot, as a "test tree." When the sap starts running in that tree, you can tap the rest.

# Tapping A Maple Tree

# **Picking Your Spot**

Pick a nice, smooth spot on the tree that doesn't have any visible scarring and is at least six inches, horizontally, away from any old visible tap holes. Tree scarring runs mostly vertically though trees so you never want to tap directly above or below an old, visible tap hole. On a large, old tree you may need to remove some loose bark. Remember that your trees should be at least 10 inches in diameter in order to tap them. You may put more than one tap on large trees. They should be kept at least 18-20 inches apart horizontally.

#### What You Need

You will need a drill, a spout and a hammer. In this guide, the term "spout" will be used when referring to any regional term for spout, tap, spile or spigot. You will also want something to hang on your spout. Buckets with lids, five gallons pails, or sap sak holders are the most commonly used items, (these items will be discussed in chapter 4) but other items will work as well.







Spout, hand brace drill and sap bucket.

# **Drilling And Tapping**

The maple industry has done a good job of standardizing spout sizes. The two most common sizes are 7/16 inch and 5/16 inch. Use the same size drill bit as your spout. If you are using a 7/16 inch spout, use a 7/16 inch drill bit. For a 7/16 inch spout, begin by drilling a hole 2 to 2  $\frac{1}{2}$  inches deep in the tree at a slight upward angle. For a 5/16 inch spout, drill a hole that is  $1\frac{1}{4} - 2$  inches deep. The height at which you drill does not matter. It should just be at a comfortable working height. Make sure to use a sharp, wood drill bit and clear the hole of any debris before putting your spout in place.

When using a power drill, be careful not to let the bit spin and cauterize the hole. Cauterizing means to heat the wound so that it begins to heal.

Place your spout into the hole and gently tap it in with a hammer until it is snug. There should be



about a 1 inch gap behind the spout once it is tapped into place. This open space in the tap hole is sometimes referred to as the "collection area." Driving the spout in too far may crack the wood. This could cause damage to the tree and may cause the crack to leak sap.

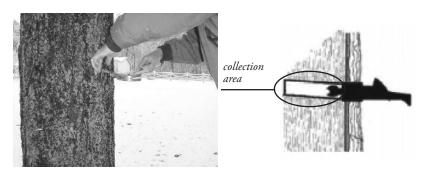


Illustration from: http://maple.dnr.cornell.edu/pubs/maple\_syrup\_production.pdf

# **Collecting Sap**

After the spout is in place, hang a bucket or sap sak holder and wait for the sap to start dripping. Be patient. It may not flow right away, but when the weather is just right you'll be able to watch the sap drip from the spout.



During a syrup "season" you will probably average 10 - 20 days of actual sap production. The amount of sap a tree will produce on any given day depends greatly on the freeze-thaw cycle, the barometric pressure and the amount of thawed ground moisture in your woods.

Falling barometric pressure occurs when a storm approaches. A large change in barometric pressure can lead to a good sap flow.

On average, one tap gives about 10 gallons of sap each season, which can be cooked into about 1 quart of syrup.

# Gathering Sap

# **Buckets, Sap Sak Holders, Or Pails**

The most desirable vessel for collecting sap is a 16 quart bucket with a roof type or flat cover. This size container can be lifted from the spout and easily dumped into a larger gathering tank.

Purchasing this type of bucket new has become rather expensive within the last few years. Good alternatives are sap sak holders and 5 gallon plastic pails.

A sap sak holder is a very economical option for gathering sap. It hangs on either a 5/16 inch or 7/16 inch hookless spout. The holder consists of three parts: the bag (usually sold separately), the holder, and the inner ring. The bag is disposable and will



need to be replaced every year. The holder can be reused from year to year and will last indefinitely. An additional bonus to using the sap sak holder is that it can easily be stored in a small space.

You will need one bag per holder during your period of sap collection. It is a good idea to have some extra bags just in case one rips or gets a hole in it. Sap saks hold about 4 gallons of sap.

When using 5 gallon plastic pails make sure they are food or water grade. Rather than hanging it from the handle, drill a 1 inch hole in the side of the pail about 2 inches from the rim. Hang the pail from the spout the same way you would hang a metal bucket. Put the cover on the pail. The pail can then be lifted off of the spout and the sap can be poured out of the spout hole.

# **Sap Sak Holder Assembly**

To put a bag on a bag holder remove the inner ring. Place the top of the bag inside the ring so it is about 4 inches above the ring (photo #1). Fold the bag completely over the ring and then tuck about an inch of the bag back up under the ring (photo #2). Then place the ring back into the holder and pull down on the bag firmly to make sure that the ring is seated in the V-notches of the holder (photo #3). Now the sap sak holder is ready for the tree. Slide the hole in the holder over the spout and wait for the sap to flow into the bag (photo #4).



Photo #1



Photo #3



Photo #2



Photo #4

# **Testing Sap**

It is not necessary to test your sap. However, if you are interested in knowing the sugar content of your sap, the easiest way to measure it is with a sap hydrometer.

Sap hydrometers will tell you the amount of sugar in your sap straight from the tree. You will need a cup that is almost as tall as your sap hydrometer, or you may set the sap hydrometer in a pail or tank of sap.

Sap hydrometers are calibrated to work with cold sap (about 38 degrees Fahrenheit, or average outside temperature during syrup season). Much higher temperatures will give a false reading.



Sap hydrometer floating in a cup.

This sap is testing at about 2.5 sugar content.

If you are testing sap on a very warm day, or if your sap sample came from a bucket hanging in direct sunlight, you may not get an accurate reading. Just be aware of this if you choose to test the sugar content of your sap.

#### **Hints**

- Be sure to hold onto the hydrometer tightly until it is floating on its own. A hydrometer released in sap can hit the bottom of the cup or pail and crack the glass. This is a VERY fragile instrument.
- When the sap hydrometer is floating, read the number that is floating at the surface of the sample. This is your sugar content. Average ranges are from 2 to 3.5 percent.

#### Rule of 86

It takes approximately 40 gallons of sap to make 1 gallon of pure maple syrup. Using the Rule of 86 can help determine, more closely, how many gallons of your sap it will take to make pure maple syrup.

If you know the sugar content of your sap (taken from the sap hydrometer), divide it into 86.

For example: Sugar Content = 2.5 86 divided by 2.5 = 34.4 gallons It will take 34.4 gallons of 2.5 percent maple sap to make one gallon of

#### From Tree to Pan

Pure Maple Syrup.

Once you have collected some sap, you'll need to get the sap from the trees to your cooking location. You can either carry the sap out in the buckets in which you've collected it, or empty the buckets into a larger container and then haul that out of the woods. Any containers used to store sap should be water grade.



This is the proper way to hold a sap bag while pouring into a collection pail.

If you are using a barrel or collection tank, you may want to have it loaded on an ATV or some kind of vehicle that can navigate easily through the woods.

Gather your sap as needed. Some days your buckets may be full, and other days there may be very little sap or no sap at all. After you gather it, cook it promptly. As spring temperatures get warmer, sap can spoil quickly. Sap that has spoiled will have a foul odor and will look milky. Adding spoiled sap to a pan of sap that is cooking can ruin an entire batch of syrup. Syrup that has been made from spoiled sap will be stringy and off-flavored.

If you have to store your sap because you cannot cook it right away, you will want to keep it as cold as possible. Store it in a refrigerator or freeze it. As you are thawing frozen sap, if there is an inch or two of ice floating on top, you can throw the ice out, as it is mostly water. The same idea applies to buckets hanging in the woods.

Once you have gathered sap you are ready to begin cooking.

# **Cooking Sap**

# **Boiling: Pans And Burners**

Now that you have some sap all you need to do is boil it to evaporate the excess water, until it turns into syrup. Any heat source that will boil water will work for cooking sap. Syrup makers often use a flat pan and a wood fire for cooking sap. Make sure that whatever pan or container you use is food grade. Thinner metal and stainless steel work the best.

Begin cooking by putting sap in your pan. Then add a heat source under it; a fire, propane burner, etc. Now just let it boil, but remember, the longer your sap is over heat, the darker your finished syrup will be.

If you can keep a close watch over the cooking process, fill your pan with about 2 inches of sap. This will allow for an optimum boil. Add your heat source. Continue adding small amounts of sap as the water evaporates to maintain this level.

If you have to gather sap as you are cooking, so that you won't be able to constantly watch your pan, you'll need to put more than 2 inches of sap in the pan. Fill it with enough sap so that it won't go dry while you are away. Come back and check it often.

**Never** let any part of your pan that comes in contact with direct heat, go dry. This will cause your pan and syrup to scorch and burn.

# **Finishing Your Syrup**

Once your sap has boiled down to about a tenth of its original volume you should begin to watch it. At this point you may get some foam in your pan. A drop of de-foamer, or vegetable oil, will prevent the foam from getting too high.

You should also test your syrup at this point. Use a syrup hydrometer to do this (see page 18). When the liquid measures 66 Brix or 32 Baumé it is syrup. The Brix and Baumé scales are used to determine the density of maple syrup. The Brix scale (more commonly used today) compares the density of maple syrup to that of a sugar solution with a known percentage of sugar. The Baumé (less commonly used today) scale

relates the density of syrup to a salt concentration of the same density (North American Maple Syrup Producers Manual, The Ohio State University Extension, 2006).



Sap boiling in an evaporator.

Some syrup makers prefer to finish their syrup in a smaller pan on a heat source that is easier to control than an open fire, such as a camp or kitchen stove. In this case the syrup should be removed from the original heat source before it reaches 66 Brix or 32 Baumé. It can then be brought back to a boil in a smaller pan on a heat source that is easy to control and it can be finished to the proper density.

If you choose not to finish your syrup, and intend to keep the thin syrup, or syrup that is cooked to less than 66 Brix or 32 Baumé, for yourself, you will need to refrigerate it, because thin syrup will spoil. It is important to note that it is illegal to sell thin syrup labeled as pure maple syrup.

Thick syrup, or syrup that is cooked to more than 66 Brix or 32 Baumé, will keep, but, over time, it may form large sugar crystals that resemble rock candy in the container.

Syrup that is cooked properly and finished at 66 to 67 Brix or 32 Baumé will not spoil and can be stored indefinitely when properly bottled.

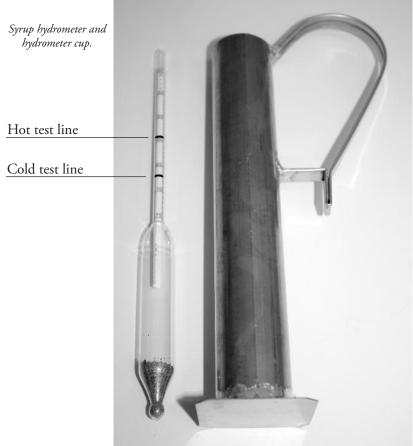
# **Testing Syrup**

# **Syrup Hydrometer**

To see if your sap is close, or has turned into syrup, you will want to use a syrup hydrometer and a hydrometer cup.

A syrup hydrometer is the easiest and most economical way to test your syrup. However, hydrometers are fragile glass instruments. They must be handled very carefully. You may want to keep a spare on hand in case of breakage.

There are two methods for testing syrup with a hydrometer: the hot test or the cold test. Either test can be conducted with a standard syrup hydrometer.



#### **Hot Test**

For the hot test, take a sample of syrup directly from the boiling pan. Do not let the syrup sit or cool.

Fill a cup at least 8 inches deep. (Hydrometer cups are made specifically for this purpose.) Hold the hydrometer cup over the boiling pan and slowly lower the hydrometer into the syrup. Be sure to hold onto the hydrometer until it is floating on its own or resting on the bottom of the sample cup. A hydrometer released into thin syrup can hit the bottom of the cup and crack the glass. While testing, the hydrometer should float so that the top Hot Test red line is even with the surface of the liquid.

If the Hot Test red line floats above the syrup surface, your sample is too heavy. Add a small amount of hot sap to your syrup to thin it and retest. Add small amounts at a time so you don't thin your syrup too much.

If the Hot Test red line is buried in your sample, the syrup is too thin and further boiling is required.

#### **Cold Test**

For the cold test you'll need to use syrup that is room temperature. The hydrometer is calibrated for 60 degrees Fahrenheit syrup. Proceed as you would for the hot test, except use room temperature syrup and read the lower *Cold Test* red line on the hydrometer.

Allow some time for the hydrometer to stabilize in the cold syrup.

# **Trouble Shooting to Avoid False Readings**

- Syrup temperature is significantly different than the hydrometer's calibration temperature.
- Sugar sand (the grainy sediment that is created every time sap or syrup is boiled) deposits on the hydrometer (carefully remove by scraping with a knife blade or soak hydrometer in a lime removal type cleaner and rinse very well.)

- Syrup sticking to the stem above the red line. (This and number 2 above both add weight to the instrument and vary its reading.)
- The paper scale inside the hydrometer stem has loosened or shifted position. This is rare but does occur from time to time. Always take note of paper location so you know if this happens.
- Syrup sample was not properly taken from the whole lot and therefore not representative of the batch.

#### Refractometers

Refractometers are another tool used to measure the sugar content in sap and syrup. They are used by putting a drop of liquid on the small window on one end of the refractometer. You then read the sugar content by looking through the eye piece at the other end of the instrument. It appears as a shadow against the calibrated background scale.

The only real benefit to using a refractometer rather than a hydrometer is that less syrup is required. Both are equally accurate, but the refractometer is considerably more expensive than a hydrometer.



Syrup refractometer.

# Filtering Syrup

# **Filtering With Orlon**

Finished maple syrup needs to be filtered to remove sugar sand, the grainy sediment that is created every time sap or syrup is boiled, and other particulates and impurities.

The most commonly used material to filter maple syrup is Orlon. Orlon

is a dense, synthetic, acrylic material with a wool-like feel. Orlon has replaced older style wool filters. Orlon and paper pre-filters can be purchased from most maple syrup equipment suppliers.

When using an Orlon sheet or bag, always remember that the gentler you are with the



Orlon bag and paper pre-filter.

bag or sheet the longer it will last, and the better job it will do.

Prior to use, hold your Orlon up to the light checking for thin spots. A thin spot will indicate it is time to replace your filter. Place your Orlon bag or sheet over a pail or pan that you would like to filter your syrup into. Then place one or two paper pre-filters in the Orlon bag or on the Orlon sheet. Pour hot syrup into the filter and let it drain through. Put small batches, one or two gallons, of hot syrup through the filter at a time. This is meant to be a slow process.

If the syrup drains through too quickly, it may mean that the fibers in your Orlon have broken down and it's not catching the unwanted sediment. If this happens it may be time to buy a new piece of Orlon.

# For best results, follow these guidelines:

• **Never:** Never wash with Soap. It will flavor your syrup.

Never twist to ring out your Orlon or unduly pull or stretch the material. This will make the material rupture and thus do a poor job of filtering.

• Always: Always make sure your syrup is hot, 180 degrees

Fahrenheit or more. Cold syrup will just sit in the

filter and not strain through.

Always wash with hot water or hot sap (NO SOAP). You may turn the Orlon Bag inside out to wash

the inside, but be gentle.

• **Suggestions:** Dipping the new Orlon for a few minutes in

boiling water prior to use, will clean it and remove any residue that may flavor your syrup while you

filter it.

Using the Orlon when slightly damp will help your unfiltered syrup to drain through the Orlon.

Use pre-filters either in the Orlon bag or on the sheet. The pre-filter will take out the larger particles and make filtering a little easier.

• **Be patient:** Orlon will do a nice job, but it takes time.

# **Trouble Shooting**

Some syrup will filter much better than other syrup. You may have a hard time with your syrup one year and the next year it will go though more easily. The amount of sugar sand, the sediment created when sap or syrup is boiled, varies from year to year.

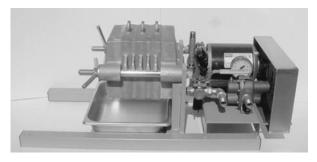
If you are noticing more sediment in your containers than you used to after filtering, it may be time to buy a new Orlon filter.

Remember, Orlon is not perfect and will not always do a crystal clear job like a filter press. However, it works well for smaller producers.

Orlon will last a few years if taken care of properly. If they are rinsed carefully, the pre-filters will last for a few batches. It is a good idea to have extra pre-filters on hand.

# **Filtering With A Filter Press**

Even a small producer can use a filter press. There are small presses available that are reasonably priced that will work with as little as five gallons of syrup. Even the smallest filter presses do as good of a job as the big filter presses, and they can make your syrup look as clear as if it was packaged professionally.



Short bank filter press for filtering maple syrup.

# **Bottling Syrup**

#### **Bottles and Jars**

Once your syrup has been filtered you will want to put it in containers so that it can be stored. Heating your syrup to at least 180 degrees Fahrenheit before putting it in a glass or plastic bottles will create enough heat to sterilize the bottle and seal the cap. Use a thermometer to keep your syrup somewhere between 180 and 205°F while bottling. If your syrup is hot (at least 180 degrees) you do not need to pre-sterilize new containers or caps.

If you are reusing containers, you will want to make sure they are clean. You will also need to purchase new caps as the old caps will not likely re-seal.



A variety of containers for packaging your pure maple syrup.

#### Reminder

Any time you boil syrup it will create more sugar sand. Sugar sand is the grainy sediment that is created every time you boil sap or syrup. When you are heating your syrup before bottling it, make sure that it does not boil. If it does you will need to re-filter it to remove any additional sugar sand.

# Cleaning Up For The Season

#### **Orlon Care**

When you are finished filtering your syrup for the last time, rinse your Orlon thoroughly with hot water. Do not ring it out. Let it dry completely and store it in a dry place.

# **Spouts, Pails And Covers**

Pull the spouts out of the trees. Use pliers, the claw end of a hammer or a spout puller. **DO NOT** plug the hole. The tree will heal naturally.

Rinse your spouts, pails and covers with hot water. It is not recommended to use bleach or soap to clean your equipment. Boiling the spouts and rinsing the buckets and covers with hot water will get them clean. Dry them thoroughly and store them in a dry place.

# Sap Saks

If you used sap sak holders, take them apart, recycle the sap bags and rinse the holders with hot water. Dry them thoroughly and store them in a dry place.

# **Syrup Pan**

Clean your syrup pan by letting it soak in rain water. Clean rain water has no chemicals and will draw sugar sand deposits out of the pan. You can also spray your pan with a pressure washer. In extreme cases, there are special acids and pan cleaners available from most maple syrup equipment suppliers.

Now you have gone through the entire process of making pure maple syrup. Enjoy it!

# **Licensing Procedure Information**

Below is just a guide and as rules change it is your responsibility to comply.

# **State Regulations**

In the state of Wisconsin, you must fulfill the proper requirements to sell your syrup.

You must *register* with the state of Wisconsin if you sell less than \$5,000 of syrup a year, from your own property, OR at a farmers' market (or similar venue), OR in bulk to another producer or packager. To sell with only a *registration*, the seller must be selling directly to the end user.

You must be *licensed* by the state of Wisconsin to sell maple syrup wholesale to stores, distributers, or as an ingredient. If you are selling your syrup to someone else, who is going to resell it, you MUST have a license. (one exception being – selling to another maple syrup packager and the total dollar amount being less than \$5,000 a year.)

More information regarding state regulations can be found at: http://www.wismaple.org/state-fed-requirements/

# **Federal Regulations**

There are also federal requirements for those who manufacture food for humans and animals. FSMA (Food Safety Modernization Act) became effective in 2015 and requires compliance by manufacturers according to their size and who is receiving the food product.

Operations are expected to comply with Current Good Manufacturing Practices (cGMPs). Federal cGMPs include regulations regarding:

- -Personnel
- -Building and grounds
- -Sanitary operations
- -Sanitary facilities
- -Process and controls
- -Warehousing and distribution
- -Defect action levels

Operations are expected to complete an FDA Food Facility Registration. This free registration has been in effect since 2003 with very few food facilities being exempt.

An online tool developed by the University of New Hampshire's cooperative extension can help you determine which FSMA regulations your operation is required to follow. The online tool, "Does FSMAs Preventative Controls Rule apply to your Maple Operation?" can be found at http://bit.ly/MapleOnlineTool

# **Helpful Resources**

# **Important Advisory**

Due to lead concerns, it is now advised to discontinue use of galvanized buckets for collecting sap, lead solder pans for cooking, as well as pumps which might contain lead parts. Lead can leach into sap and syrup through these items and can be harmful when ingested.

#### Informational Websites

Wismaple.org

Wisconsin Maple Syrup Producers Association

Mapleresearch.org

North American Maple Institute Research Hub

Uvm.edu/~pmrc/

Univ. of Vermont, Proctor Maple Research Center

Internationmaplesyrupinstitute.com

International Maple Syrup Institute

Northamericanmaple.org

North American Maple Council; lists state and provincial associations

Maplesyrup.osu.edu

The Ohio State University Extension

Blogs.cornell.edu/cornellmaple/

Cornell University Maple Institute

# **Maple Candy Recipe**

Boil maple syrup to the hard-ball stage (240 degrees Fahrenheit). A dab of butter will keep the syrup from boiling over. Cool in cold water (160 degrees Fahrenheit), then stir slowly until it turns cloudy, about 5 – 10 minutes. Pour the syrup quickly into a buttered pan and cut.

For more recipes go to wismaple.org/recipies/

# **Guide Sources**

|   | Books   |
|---|---|
|   | Heiligmann, Randall B. et. all. (2006)  North American Maple Syrup Producers Manual (2nd Ed.).,  Columbus, OH: The Ohio State University Extension. |
|   | Perrin, Noel. (1980)  Making Maple Syrup The Old-Fashioned Way  North Adams, MA: Storey Publishing.   |
|   | Websites  |
|   | Pg. 5 illustration from:<br>http://www.waterfordvillage.org/nature-garden/trees-maples.htm  |
|   | Pg. 9 diagram from:<br>http://maple.dnr.cornell.edu/pubs/maple_syrup_production.pdf   |
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# Notes

#### **About the Authors**

The Andersons created this guide as a quick reference for beginning syrup makers. They want to encourage those interested in syrup making so that the legacy and art of this rustic tradition continue well into the future.

The Andersons feel that the information included in this beginners guide shows the easiest and most straight forward methods for harvesting and cooking sap and, filtering and bottling finished syrup. They hope that you find the information in this booklet helpful and that you have continued success in syrup making!



Alison, Mya, Ben and Steve Anderson



# **WMSPA MISSION STATEMENT**

The Wisconsin Maple Syrup Producer's Association is dedicated to improving the ability of its members to produce & market the finest pure maple syrup in North America.