Questions asked at Beginner’s Clinics

General Categories

Tapping

1. Can I mix my box elder sap with my maple sap? **Yes**
2. What do I plug the tap hole with? **Nothing, it will heal best with no help**
3. Should I disinfect my tap hole with Alcohol? **No that could kill cambium cells and slow healing**
4. Should I disinfect my drill bit with Alcohol after each hole? **That would be fine but unnecessary**.
5. Why do some trees run later than others? **Mostly depends on timing of microbial contamination of each tap hole**
6. Why do some trees not run at all? **A maple tree may have limited access to water, damaged or unhealthy roots, sections of the trunk may be dead or you didn’t tap deep enough when there is very thick bark. Most other species do not run sap that will come out of a hole in the tree.**
7. What makes the sap a brown color coming out of the tree? **Usually tapping into rotting word in the tree or old partitioning from former taps.**
8. Should I put my taps in last year’s hole? **Never**
9. Do I leave my taps in year around**? Pulling taps right after the season will allow for the best healing**
10. How may taps per tree? **For long term availability of good tapping wood in the tree one tap for every 36 inches of circumference.**
11. What is smallest tree I can tap? **Any tree can be tapped but for sustained production begin taping when trees are 10 to 12 inches in diameter**
12. How come the really big trees don’t run?  **Very slow growth on old trees can leave the spout blocking the outer most growth rings where most sap runs, may need to tap deeper if the bark is very thick.**
13. Why does the side of the tree get wet around my tap? **Tap hole is not round or spout is not hammered secure, it is not unusual to get a little wetness around the tap but it should be small and not last long.**
14. How much sap to make a gallon of syrup? **Depends on how sweet the sap is but typically 20 to 80 gallons. Trees with bigger crowns and more light exposure often are sweeter.**
15. What is the right method to use Jones rule of 86 or 87.1? **Either will put you in the ball park, 87.1 is a little more accurate.**
16. Should I always tap on the south side of the trees? **No, use the whole tree or in time you will not find clean white wood on the south side.**
17. When should I tap? **Depends on where you are and how many taps you have to put in, small operations can tap by the weather forecast, bigger operations are more likely to start tapping by a date.**
18. Should I tap under big limbs? **Yes and all the way around the rest of the tree as well**
19. Does sap run down the tree or up the tree? **Both, up early during a freeze and down when the sap is running**
20. Where does the sugar come from? **Starch stored in the roots and wood of the tree**

Tubing

1. Can I use alcohol to clean my tubing? **No, isopropyl in the US it is not registered; ethanol is not very effective and attracts insects that damage tubing.**
2. Why don’t I get as much sap out of my 3/16 tubing as I did 2 years ago? **The Ts become partly blocked with bacteria and yeast so it needs to be sanitized annually or Ts replaced at least every other year**
3. Will I get more sap with a hand operated vacuum pump**? Vacuum typically increases sap flow between 5% to 10% for each inch of vacuum added, Not familiar with hand operated pumps, sounds like a lot of time and work.**
4. Can I use zappit swimming pool shock as a sanitizer? **Cleaning food contact surfaces should be on the label but Calcium hypochlorite is very effective.**
5. What can I use for a sanitizer? **Bleach is the most effective, either calcium or sodium, should have food contact surfaces on the label and no other additives. Needs the right dilution and contact time to be effective typically 200 to 400ppm and twenty minutes contact time. Should be rinsed to avoid wildlife damage or off flavors.**

Syrup quality

1. Do I need to boil my sap more than once per week? **Should boil at least every other day unless you can hold the sap at or below 34 degrees.**
2. Does sap spoil? **Sap spoils very rapidly at temperatures above 50 degrees F, fairly fast at lower temperatures but will hold below 34 for a several days.**
3. Why does my syrup always turn out dark**? Letting sap get old, tubing that has not been cleaned, how rapidly you boil, very slow boil makes it dark especially as it is getting closer to finishing.**
4. Why does my syrup have a smoky flavor? **Smoke is coming in contact with the boiling syrup or with sap, may need a taller chimney or pan covers. If heat is able to come up the outside of the pan it can create hot spots at the top of the boiling liquid where syrup or foam burns on and gives the syrup a burnt or smoky flavor.**
5. Why does my syrup have a tinny flavor? **Steel pipe or a cast iron pump touching the sap or a steel holding tank can add these flavors to syrup.**
6. Is it ok to use bacon grease to keep the foam down? **If you are making the syrup for yourself it is fine but when selling many customers object to animal fats in maple syrup.**
7. Why does my syrup have an earthy flavor? **Leaves or pine needles in holding tanks can do this but often this comes from random weather conditions resulting in what is called metabolic flavors. This should be temporary and not often.**
8. Why does my syrup taste burnt? **If heat is able to come up the outside of the pan it can create hot spots at the top of the boiling liquid where syrup or foam burns on and gives the syrup a burnt or smoky flavor. Letting sugar sand build up on the bottom of the finishing pan can lead to burning syrup in the sand adding the off flavor**
9. Can I freeze my sap until I’m ready to boil? **Yes**
10. Can I refrigerate my sap until I’m ready to boil? **Yes, but this is only good for 5 or 6 days unless it is very close to freezing**
11. Can I throw the ice from my buckets out because Its water? **Solid ice yes, unless there is no core where the sap is still unfrozen. Slush will still have a fair amount of sugar mixed in.**
12. Why does my syrup have a gritty taste? **Needs to have the sugar sand filtered out or allowed to settle out.**
13. Why does my syrup have a waxy flavor? **Likely too much defoamer was used. Brand new tubing can add a plastic or waxy kind of flavor to first runs.**
14. Is it ok to use used tote tanks if they are washed? **Should have only been used for food products not chemicals**
15. How come my syrup tastes fruity? **Fruity is a common side flavor of maple for unknown reasons tends to go with certain sugar bushes or if the syrup had slightly fermented at some point in its life it can have a fruity taste**
16. What temperature should I bottle my syrup at? **Between 180 and 190 F**
17. Can I reuse my containers? **For personal use, yes but getting the seal right can be more difficult, glass works best for reuse. Legally, syrup for sale in Ontario must be packaged in new containers.**
18. Why did I get mold on top of my syrup? **Bottled too cool, container was too cold when bottled even with syrup at the right temperature or container did not seal.**
19. What should I do with the moldy syrup? Can I re boil it like the old jugs say I can?  **With so many people with allergies it is no longer recommended, may be fine for you to use.**
20. Why does the late season syrup have a woody taste? **This can be caused by metabolic changes happening in the tree due to unique weather conditions but this should not be happening all the time. If you get this all the time it may be due to poor condition of trees, too many taps hitting old partitioned wood when tapping**.
21. Why did my syrup turn to jelly in my pan overnight? **That is called ropy syrup. It is due to bacteria that is active in sap or syrup during warm spells, sanitation and processing as soon as possible are the only known cures and even then sometimes it still can happen.**
22. Does an r/o machine change the flavor of my syrup? **The RO machine does not but how sap is managed can. Once sap is concentrated it is very important to process as soon as possible as the sugar and the microbes have been concentrated together.**
23. What is the difference between sugar sand and Niter? **Two different names for the same thing.**
24. How do I get the brown stuff off the bottom of my pan? **If you have an RO let it soak with permeate, scrubbing with hot water, use an acid pan cleaner.**
25. What is a refractometer? **An instrument for measuring sugar level in sap or syrup.**
26. How do you use a hydrometer? **In boiling hot syrup the syrup will be at finished brix of 66.9 when the syrup is level with the top red line. If testing at room temperature it will be at proper brix when the syrup is level with the bottom red line and the syrup is exactly at the temperature listed on the hydrometer, usually 60F or 68F or adjustment is made from a temperature adjustment chart for that hydrometer.**
27. What should I do if I overcook my syrup? **Add back water or sap and cook to correct density**
28. How do you tell if the sap has gone bad? **Usually it will have a milky appearance, smells like yeast or alcohol.**
29. How can I clean up rusty taps? **Better to replace rusty taps. Only Stainless steel, food grade plastic and aluminum are allowed for contact with sap or syrup. There shouldn’t be any rust.**
30. Is all DE (diatomaceous earth) powder the same? They sell it at the swimming pool store? **DE is not all the same, only use food grade with syrup.**

Finishing and Grading

1. Why is my syrup cloudy? **Need to have sugar sand filtered out.**
2. Why do I get sugar on the bottom of my containers? **Syrup has been boiled to too high brix.**
3. What is the stuff floating around in my maple syrup? **Likely sugar sand, mold or trash that was not filtered out of the sap.**
4. Why did my syrup get cloudy in the bottles after I ran it through a filter press? **Likely it was heated to high, over 190 F after being filtered.**
5. Does mixing egg whites and cream in your syrup take out the sugar sand? **No allergens should be used as part of syrup production; good filtering will do the job.**
6. Can I use DE powder with a filter bag? **Yes, but following use it will need to be very well cleaned and direction of flow in the bag should not be reversed any time in the future. DE is usually used where the filters are discarded. You should not use pressure in a bag.**
7. Am I required to grade my syrup? **If you are selling the syrup it must be graded.**
8. What are the grades of syrup? **Golden Color and Delicate Taste, Amber Color and Rich Taste, Dark Color and Robust Taste, Very Dark Color and Strong Taste.**

Legal

1. Do I need a License? **Not in Ontario, but you must meet Regulation 119**
2. Do I need a DNR water permit? **No**

Equipment

1. What is a hydrometer? **A tool for telling when syrup is finished, the lower red line in boiling syrup would make the finished syrup have 66.9 brix**
2. Why do I need to calibrate my thermometer? **Most thermometers cannot be calibrated but testing against the freezing point of water by placing it in ice water can let you know if it is off and by how much. Testing against boiling point is not trustworthy as boiling point changes with the barometric pressure.**