

## Maple Syruping in 2021

Yesterday was a beautiful sunny day.  
The Maple sap started running really well yesterday.  
Then it got cold and snowed.  
The first photo proves that it was running.  
The second photo shows why it is not running today.  
Five inches of snow and 24 degrees.

Sap runs best when  
nights are below 30  
degrees and days are  
above 40.

Sunny and 50ish is  
best.

The sap is pumped up  
the trees by cellular  
contraction at cold  
temperature,  
followed by  
expansion when  
heated.

I tapped 30 trees  
yesterday and 3 out  
of 4 were running.  
Many of my buckets  
captured a gallon or  
more of sap.  
Then it snowed.  
It takes 40 gallons of  
sap to produce one  
gallon of syrup.  
My guess is that the  
buckets collected ten  
gallons total.

Now, that sap is  
mixed with snow.

That is not really a problem.

The forecast is for 12 degrees tonight.

Early tomorrow I will collect from buckets.

Each bucket will have a mixture of ice and fluid.

The ice will be pure water.

I will scoop the ice out and discard it.

The remaining fluid will be concentrated sap.

The cold temperature will have reduced the amount of water that we must evaporate off to make syrup.

You have seen this same separation when a can of pop freezes.

What does not freeze is concentrated.

The temperatures from Tuesday on should be perfect for the sap run.



I will let you know how that all turns out.  
I tap a slightly upward  $\frac{3}{4}$  inch diameter hole.  
Then I drive in a split,  $\frac{7}{8}$  inch outside diameter section of PVC pipe.  
You can see the sap dripping.  
I drive in a 16-penny spike to hang my pail.  
At the end of the season, I pull the pipe and the spike.  
Both are completely reusable and nothing is left in the tree.  
Do you notice the beautiful fungi?  
Delightful pastels of green and yellow and grey.  
I use clean, seamless, five-gallon buckets.

Good trees can run that much on a perfect day.  
Leaves, bugs and other things that fall into the open buckets can be easily filtered out through a dish towel.  
The liquid boils slowly for hours. The sap is sterilized.  
Most trees get one bucket only.  
Tom

