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Maple Sugaring Research Project

Jax C

Lincoln Akerman School, ktrottier@sau21.org

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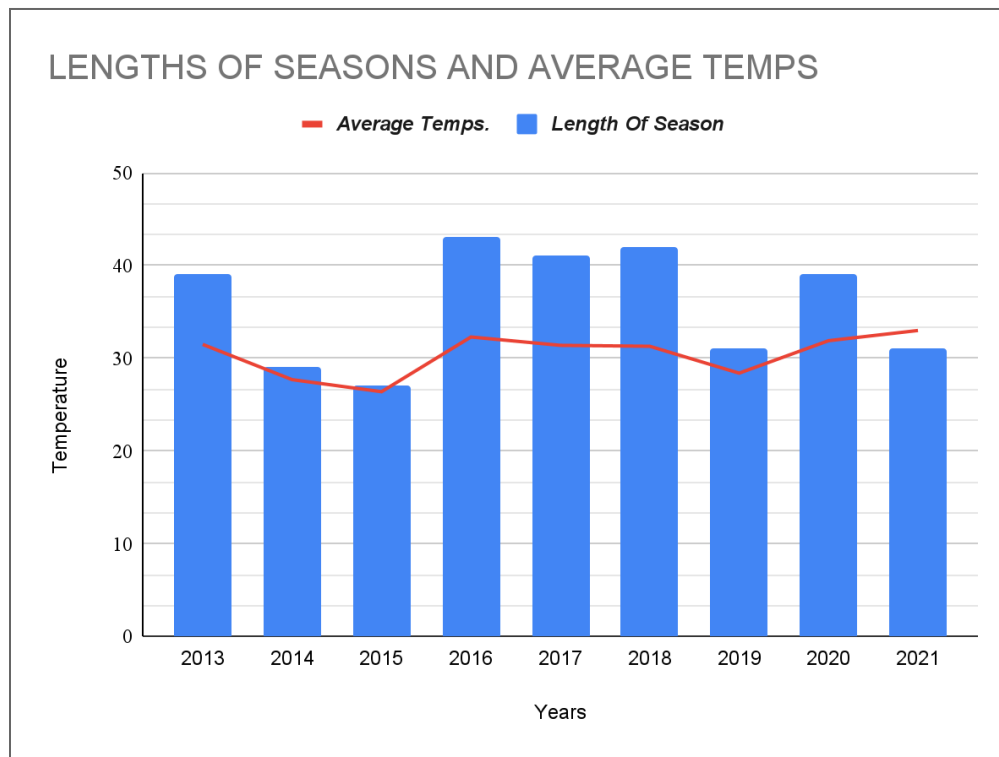
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Delicious No More?

Don't you just love the fresh maple syrup that you have on your pancakes and your waffles. You just love how the more syrup there is the better. But you soon realize your mother gets fake syrup that doesn't taste as fresh as the glorious fresh maple syrup flavor. Maple syrup is made from sap, the sap is collected from something called a tap, there can be one to four taps in one tree. This tap is connected to a tube which the tube can be connected to an entire line or to one to two buckets (mostly just one just depends on the amount of taps). The most common type of tree that is to be tapped is a maple tree, pretty simple right? Well actually the process isn't simple. First things first you have to boil the sap to separate the water and the sugar into syrup then it will go through a series of filters until you have syrup. And we need sap that is sweet and flows. If we don't have temperatures that are twenty five degrees fahrenheit at night and thirty five degrees fahrenheit at day the sap won't flow. And when you add climate change to this system it adds a big problem. It's the forties in the middle of winter, the temperatures are off the charts. This affects the length of the seasons and affects the production of maple syrup.



The big problem is climate change. This makes us start the sugaring season way earlier. The average length of a season in 2013 was thirty eight days. In 2021 it was twenty six days! The average temperature for 2021 was thirty four degrees fahrenheit! This will affect the flow of sap because like I said earlier it's supposed to be twenty five at night and thirty five in day time to have a strong flow of sap,

since the average temperature is thirty four this means that it will probably be thirty at night. You need forty gallons of sap to just make one gallon of syrup. I have a prediction that some winters will be really cold but also really warm, this will cause the flow of sap to stop and go constantly which could cut the production we have today in half or slightly increase but decrease over time. I think this because I observed and studied some charts and graphs(some I made) that show that in 2000, 270,000 gallons of 80,000 gallons .2020 produced 154,000 thousand gallons of maple syrup which is quite a big difference from 1992 which produced 94,000 gallons. This is the starting point of my prediction I made which soon later on the production could just stop flat, this is because of the high temperatures.

I'm really curious about my prediction if it's right or wrong because it does depend on how we treat climate in the future. If we treat it well it could work but it also couldn't work. A question that I've got to ask is how will the temperature change affect the flow of sap. I mean people keep on starting the

season earlier and earlier to avoid the warmer temperatures and to let the sap flow. I'm curious about what you think.

