



Will Temperature Affect Sap Production?



Megan Rogers

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Background Information

Birch trees are found in temperate climates. They are tapped in the early spring for their sap, which can be made into syrup.

Hypothesis

If a birch tree is tapped in warmer weather, then it will produce more sap.

Procedure

- 1) Drill tap into tree
- 2) Take the temperature of the tree
- 3) Hang bottle on the tap and wait one hour
- 4) Measure how much sap was collected

Results

Temperature of Tree (celsius)	Amount Collected (g)
4	88.4
0	11.3
11.5	26.5
3	22.2
12	130.9

Temperature of Tree (celsius)	Amount Collected (g)
1.3	314.2
8.3	90.7
3.9	88
7.6	116.8
9.5	14.5



Sap Collection

Data Summary

The temperature of the tree does not affect the amount of sap produced.

Conclusion

The temperature of the tree does not influence the amount of sap. Instead, it could be the time of year, the amount of direct sunlight, or the overall air quality of the area. These are all things that could be researched later.

Errors and Improvements

I started tapping too late into the season, once the buds start to appear, the sap starts to slow and the season is over.

Graph

