



INDIANA'S 2019 MAPLE PRODUCTION

After the 2019 maple syrup season, the DNR Division of Forestry sent 211 questionnaires to all known maple syrup producers in Indiana. Of those questionnaires, 78 were sent electronically. We improved the electronic form from last year to make it more user-friendly this year. Eighty-four individuals responded, resulting in a 40% response rate, slightly higher than last year's 37%.

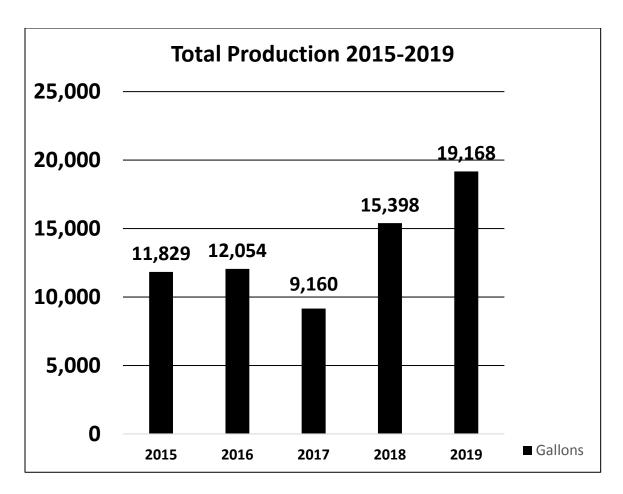
The Division of Forestry thanks the Indiana Maple Syrup Association (IMSA) for assistance and partnership in completing the 2019 survey. For the past six years, IMSA has covered the postage costs for mailing surveys to producers. Partnerships are essential to projects like this. You can learn more about joining IMSA, and about maple syrup production in general, at indianamaplesyrup.org.

To compare similar climatic regions, results were broken down into two major groups. The dividing line was U.S. 40, bisecting the state into a northern region, which returned 70 questionnaires, and a southern region, which returned 14.

General production statistics

Of producers who responded to the questionnaire, 83% produced syrup in 2019, compared to 87% in 2018. Seven producers from the southern region and 63 producers from the northern region reported production in 2019.

The state's total syrup production was 19,168 gallons, compared to 15,398 in 2018, a 20% increase. Ten large producers accounted for 58% of production. Northern producers accounted for 16,733 gallons. Southern producers generated 2,435 gallons. The graph below reflects the total number of gallons produced each year, starting in 2015.



Thirty-three counties have at least one active maple syrup producer. Elkhart County reported the most of any county, with 17 sugar camps. LaGrange County had eight, and Parke County reported seven. Kosciusko County was, once again, home to the largest sugar camp in the state. Orange County had the second-largest camp, and Putnam County the third largest.

Season length

The overall state average opening date was Feb. 16, and the closing date was March 23. Regionally, the average opening dates were Feb. 17 for the north and Feb. 5 for the south. The average closing date was March 24 for the north and March 13 for the south.

Sap requirements

The average amount of sugar water (sap) needed to produce a gallon of syrup was 42.5 gallons in the north and 53.7 gallons in the south. The state average was 43.5 gallons.

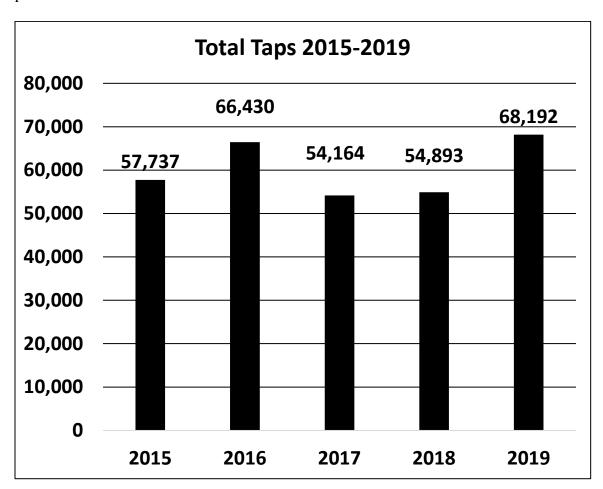
These numbers are lower than those reported in 2018, although some southern sugar camps reported as many as 69 gallons of sugar water to produce a gallon of syrup. A variety or combination of reasons may have caused this—warmer weather at the end of the season, an increased number of soft maple taps and increased stress on tapped trees

in the summer. Using these figures, we can estimate that approximately 833,808 gallons of sugar water were collected in 2019.

The reported average amount of sap needed in 2019 to produce a gallon of syrup may not be wholly accurate. Some producers do not maintain accurate records of sap inflow. For those camps that produced syrup in 2019, the average amount produced per camp was almost 274 gallons, compared to 230 gallons per camp in 2018. Although the majority of the sugar water was produced at the producers' own sugar bushes in 2019, producers did purchase or produce almost 54,000 gallons for others.

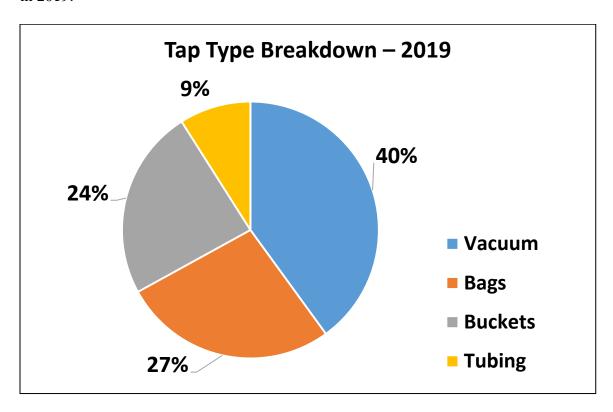
Collection methods

Indiana producers set 68,192 taps in 2019, 19.5% higher than in 2018. 40% of that total was from taps set on vacuum, 27% on buckets, 24% on bags and 9% on tubing. The graph below represents the total number of taps used each year, from 2015 to present.



Buckets remain a popular way to collect syrup, regardless of region. Producers used an average of 421 buckets. The largest single producer using buckets hung 2,500 buckets in the northern region and the largest producer in the southern region hung 200 buckets.

The total number of bags increased 44% from 2018, to 15,939 bags used; however, the number of producers using plastic bags decreased from 33 to 28 in 2019. One producer used 7,800 bags in its operation. Many producers use a combination of buckets, bags, tubing or vacuum. The pie chart below breaks down the percentage of collection types in 2019.



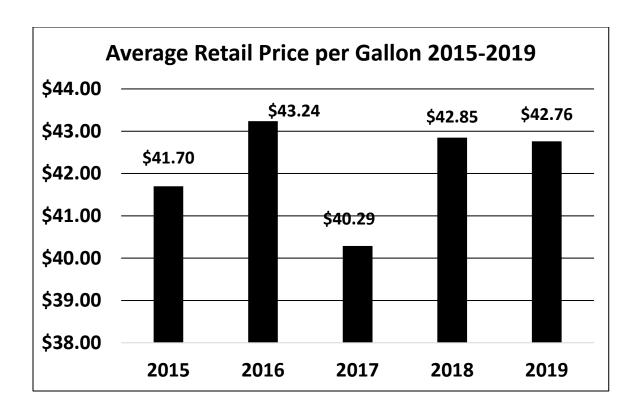
The number of producers using vacuum systems for sugar water collection is increasing as terrain, dollars and results allow. Statewide, 23 producers (21 from the northern region and two from the southern region) used vacuum systems as part of their collection operation.

Syrup prices

The statewide average price received for a retail gallon of syrup was \$42.76 in 2019, almost identical to the 2018 price of \$42.85. Only two surveys from the south contained a cost-per-gallon report, and that was \$44 per gallon. Northern producers averaged \$42.69 per retail gallon.

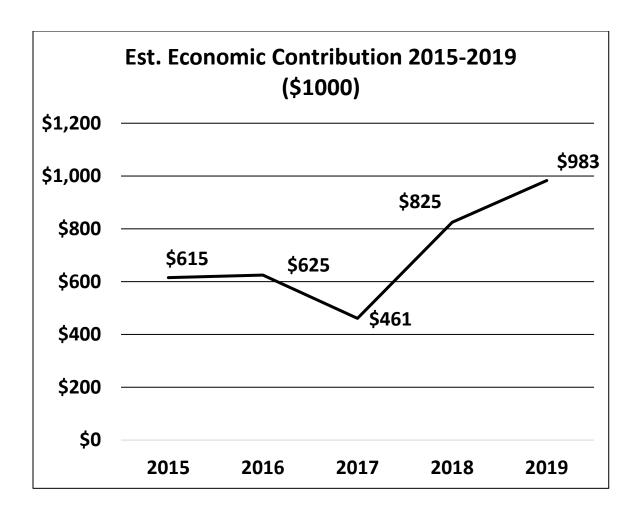
The average statewide price received for a quart of retail syrup was \$13.89. More producers returned surveys this year with information about pricing per pint than in past years. The state average per retail pint was 50 cents higher in 2019, at \$8.72.

The statewide wholesale average gallon price was \$38.43, but only seven producers reported wholesale pricing for gallons. The graph below depicts the average price per retail gallon of syrup for the past five years.



Economic impact

Statistics gathered via our 2019 questionnaire most likely do not reflect the true income generated from Indiana's producers. The estimated statewide reported syrup income for 2019 (multiplying the average price-per-gallon by reported production) is \$819,624; however, if one appreciates the quantity that was consumed via the producers' family, given away, or simply not reported, the calculated dollar figure might grow, conservatively, to \$983,500. Assuming this figure to be realistic, the average dollar return per tap hole is \$14.42. That figure is slightly lower than the \$15.03 reported in the 2018 maple syrup producer's survey. The graph below shows the estimated economic impact for maple syrup production during the past five years.



Limiting factors

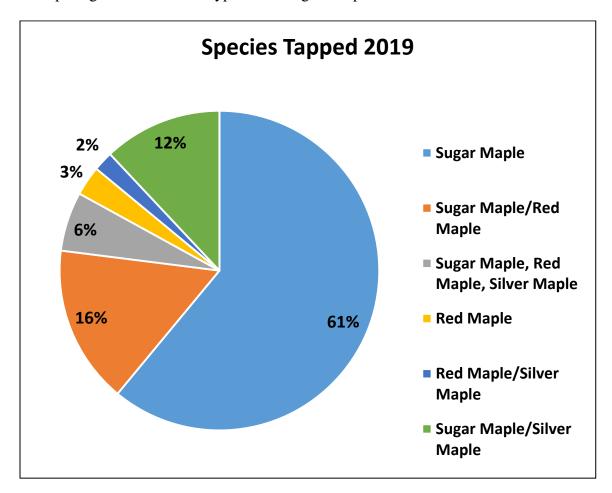
Sales do not appear to be a limiting factor for Indiana maple product producers. Instead, the inability to produce enough syrup, due to unfavorable weather and/or short tapping seasons, was the greatest impediment to making a profit.

Prime tapping conditions need below-freezing temperatures in the evening followed by a fairly fast thaw in the morning. This normally allows for good sap flow. The 2018 season rebounded well from the poor year reported for 2017. The year 2019, however, was even better than 2018, according to data received. According to those who commented on the season, 63% said this season was above average; 37% rated it as average; and, for the first time on record, no one reported the season to be below average. Much better weather, lasting for longer periods of time, was reported for the 2019 season across the state.

We are all aware that each sugar bush has unique characteristics, and that no two bushes produce alike. Although Indiana is a relatively small geographic area, the variation in weather is significant, as evidenced by prior years. As reported earlier, conditions in 2019 were reported to be well above average.

Species tapped and sugar bush management

Producers at the annual IMSA meeting asked if we could include data on species tapped, and whether producers were managing their sugar bush from a silviculture standpoint. The pie chart below reflects the species breakdown in the sugar bush operations. Regarding sugar bush management, 90% of those producers selling their product actively manage their sugar bush. As our survey continues to evolve, we'll attempt to gather data on the types of management performed.



Where Indiana syrup ends up

Overall, most of the produced syrup is sold at a retail level. Of those reporting production, 28.5% said that at least a portion of their production is given away or consumed domestically. Of course, these same producers tend to be smaller in scope and production. Packaging preferences show the majority favoring retail sales in gallon containers. Fewer producers favor quarts. The remainder sold syrup in smaller units. A few producers offer maple sugar, creams, candies, cookies, etc., but apparently these maple products do not account for substantial percentages of any one producer's sales.

A sincere thanks

Sincere thanks to all the maple producers for their prompt questionnaire responses. We have updated our maple database and will continue to be a contact for Indiana maple products.

Please remember the data compiled in this report is only as good as the data received. To be able to more accurately report maple syrup production figures, we'll continue to need a high response rate.

Although our time is limited for personal visits, we welcome calls and inquiries on all facets of maple production. Special forest products, such as maple syrup, contribute substantially to the income of many people in rural areas, while also offering wholesome therapy.