Indiana Department of Natural Resources Division of Forestry

INDIANA'S 2017 MAPLE PRODUCTION

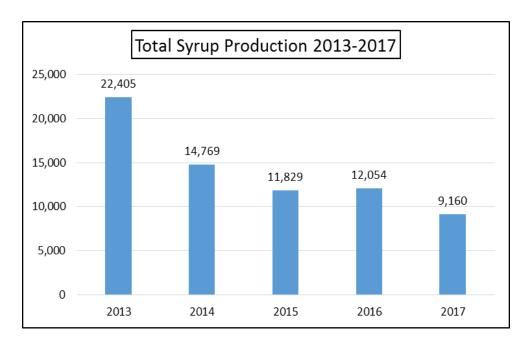
Shortly after the 2017 maple syrup season, 181 questionnaires were sent to all known producers of maple syrup in Indiana. A total of 93 individuals responded, a 51% response rate, which is very comparable to the 52% response rate for 2016.

The Indiana Division of Forestry would like to say "THANK YOU" to the Indiana Maple Syrup Association (IMSA) for its assistance and partnership in completing the 2017 survey. For the past four years, IMSA has covered the postage for mailing the surveys to producers. In today's world of shrinking budget, partnerships are essential to completing projects like this. If you are not a member of IMSA or simply interested in the production of maple syrup, check out their website at http://www.indianamaplesyrup.org/. They are a great organization!

For the sake of comparison of similar climatic regions, the results were broken down per two major regions. The dividing line chosen was U.S. 40, bisecting the state into a northern region, which returned 81 questionnaires, and southern region, which returned 12.

Of the producers who responded to the questionnaire, 77% produced syrup in 2017, which was significantly lower than the 89% who reported producing syrup in 2016. A total of 8 producers from the southern region and 64 producers from the northern region reported production in 2017.

Ten large producers accounted for 64% of the states' total syrup production of 9,160 gallons. After a record year in 2013 (22,405 gallons), this year's production was the lowest since 2009 and 24% lower than the 2016 production of 12,054 gallons. Northern producers accounted for 8,984 gallons. Southern producers generated 175.5 gallons. The graph below reflects the total number of gallons produced each year, starting in 2013.



There are 40 counties in the state that have at least one active maple syrup producer. Elkhart reported having 15 sugar camps, the most in any one county. Parke County had nine, Marshall and LaGrange counties had five each. Kosciusko County was once again the home to the largest sugar camp in the state. Putnam County had the second-largest camp, and Elkhart County the third largest.

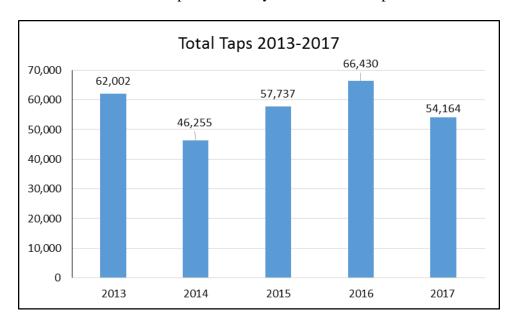
The overall state average for opening date was February 5th and the closing date was March 8th. Regionally, the average opening dates were February 6th and February 2nd for the north and south, respectively. The average closing date was March 9th for the north and March 4th for the south.

The average amount of sugar water (sap) needed to produce a gallon of syrup was 47.2 gallons in the north and 48 gallons in the south. The state average was 48 gallons of sap to produce a gallon of syrup. These numbers are very close to those reported in 2016. Using these figures, we can estimate that approximately 439,680 gallons of sugar water was collected in 2017.

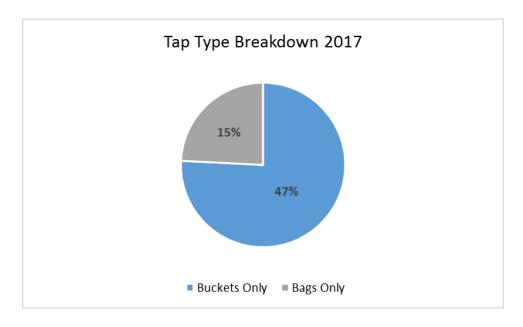
The reported average amount of sap needed in 2017 to produce a gallon of syrup may not be wholly accurate. Some producers do not maintain accurate records of sap inflow. For those camps that produced syrup in 2017, the average amount produced per camp was 127 gallons. This figure is significantly lower than the 177 gallons per camp reported in 2016. Although the majority of the sugar water was produced at the producer's own sugar bush(es) in 2017; producers did purchase 23,224, 23% less than the 30,049 gallons reported in 2016. Perhaps some camps chose not to buy additional syrup. It's also possible that those producers who normally buy additional syrup did not return a survey.

Of the 54,164 taps set in 2017 (an 18% decrease from 2016), about 25% of the state's syrup production was accounted for via producers using only buckets for sugar water collection. A total of 20,229 buckets were used in 2017. The 47 Indiana maple syrup

producers used an average of 430 buckets in their collection operations. The graph below represents the total number of taps used each year from 2013 to present.



Buckets continue to remain the most popular way to collect syrup, regardless of region. The largest single producer using buckets hung 3,000 buckets in the northern region and 75 buckets in the southern region. The pie chart below shows the number of producers per type of tap used in 2017.

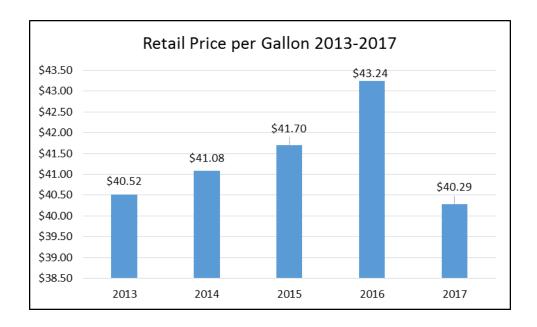


The use of plastic bags increased in 2017 to 143,531 (one producer reported using 135,000 bags) compared to 18,873 in 2016. A total of 24 producers used plastic collection bags in 2017. Many of these producers also used buckets and or tubing as well. Producers using only bags to collect sap set, on average, approximately 363 taps. One

producer set 4,000 taps, using only bags. Those using only bags for sap collection accounted for 388 gallons in 2017. On a regional basis, those using plastic sap collection bags were split nearly evenly between the two regions. In the north, nine producers using 1,371 bags collected 263 gallons of syrup. In the south, two producers using only plastic bags collected 125 gallons and set 4,074 bags for collection.

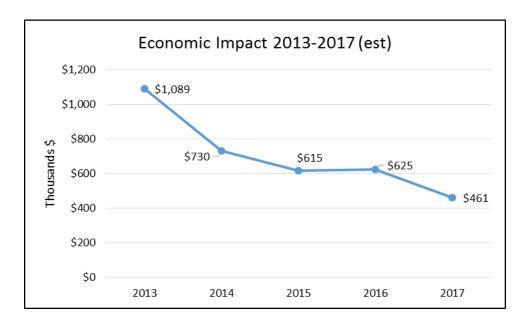
A number of producers use tubing for sugar water collection are slowly changing to plastic bags as terrain, dollars and results allow. Statewide, 20 producers (18 from the northern region and two from the southern region) used more than 169,000 feet (32 miles) of tubing for collection in 2017. Those using tubing produced 2,288 gallons of syrup.

The statewide average price received for a retail gallon of syrup was \$40.29. This was slightly lower than the \$43.24 reported in 2016. No surveys returned from the south contained a cost per gallon information. Northern producers averaged \$40.29 per retail gallon. The average statewide price received for a quart of retail syrup was \$14.05. More surveys were returned this year with information about pricing per pint than in the past few years. The state average per retail pint was \$8.39. The statewide wholesale average gallon price was \$35.56. The graph below depicts the average price per retail gallon of syrup for the past five years.



The statistics gathered via our 2017 maple syrup production questionnaire most likely do not reflect the true income generated from Indiana's producers. The estimated statewide reported syrup income for 2017 (multiplying the average \$/per gallon by the reported production) is \$369,056 521,214.00. However, if one appreciates the quantity that was consumed via the producers' family, given away, or simply not reported, the calculated dollar figure may well grow, conservatively, to more than \$461,000. Assuming this figure to be realistic, the average dollar return per tap hole is \$8.51. That figure is slightly less

than the \$9.42 reported in the 20165 maple syrup producer's survey. The graph below shows the estimated economic impact for maple syrup production during the past five years.



Sales do not appear to be a limiting factor for Indiana maple product producers. Instead, the inability to produce enough syrup due to the unfavorable weather and/or short tapping seasons was the greatest impediment to making a profit. Prime tapping conditions center on below-freezing temperatures in the evening followed by a fairly fast thaw in the morning, which normally allows for good syrup flow. In 2016, it was reported to be one of the worst seasons since the inception of this survey.....unfortunately the 2017 season was even worse. According to those who commented on the season, only 2% said this season was above average, 11% rated it as average, and 86% said it was below average. The main reasons reported were the extended and unseasonably warm March temperatures as well as the lower sugar levels in the sap. Several producers did not even attempt to tap in 2017 due these reasons.

Overall, most of the produced syrup is sold at a retail level. Of those reporting production, almost 31% of respondents 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.

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 2017

were reported to be significantly below average.

Sincere thanks to all the maple producers for their prompt questionnaire responses. I 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 to your operation, we do welcome your 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 offering wholesome therapy at the same time.