Maple Syrup Season 2012 – Summary

report by

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Overview: This report documents the activities of the Saint John’s Maple Syrup operation during the 2012 season. Although this year was a failure if measured by syrup production, as always it was a tremendous success in promoting Benedictine values and providing educational opportunities for students of all ages.

Staff: Once again the main production crew consisted of Br. Walter Kieffer OSB (Figure 20 & 21), William Mock, John O’Reilly, Stephen Saupe, Kevin Sittauer, Gary Gillitzer, Al Meyer and Dan Weber. Tom Kroll, Saint John’s Arboretum Director, provided logistical, administrative, and technical support (Figure 20). We especially missed Sarah Gainey, who is on maternity leave. We were assisted by numerous students, faculty, staff, and friends. Nearly 90 individuals volunteered more than 450 hours to the operation (Table 3).

Tapping: We typically schedule “Community Tapping Day” on a convenient weekend in early March. Unfortunately, Spring Break week occupied the two prime weekends for tapping. To insure having some taps out to catch any early runs, Brother Walter and a small crew installed about 800 taps, all with buckets, on Saturday, March 10th. Then, on Community Tapping Day (March 17th) we installed about 200 taps with bags. By the end of the season, visitors had placed out approximately 200 additional taps. We estimate that there were about 1100 total taps by the end of the season.

Community Tapping Day began with participants assembling the bags and holders followed by the crews installing the taps (Figure 3 & 4). Each crew consisted of a ‘tapper’ with portable drill (and spare battery), a ‘spile driver’ with a hammer and bucket of spiles, a ‘bag runner’ who dropped a bag/holder beneath the taphole, and a ‘hanger’ who placed the bag on the spile. The trees had been marked with paintballs the previous day by Arboretum Staff. As a side note, the paint is water-soluble and doesn’t last too long; near the end of the season the Arboretum marked the trees with a more permanent paint.

Clean Up: Taps were removed starting during the second festival (Mar 31). Spile removal was completed the following week. If there hadn’t been a second scheduled festival, we likely would have removed the spiles on March 24th, right after the festival. At this point it was clear the season was over because the sugar maples were budding out and the sap was spoiling before we had a chance to cook it. Arboretum staff washed buckets at the Refectory before Easter. Final clean up, including power-washing the pans (Figure 5), occurred the week after Easter break (April 9 – 12).
**Festivals:** Once again we held two festivals (March 24 and March 31). As usual, the festivals featured maple syrup sundaes (Figure 6), live music, face painting (Figure 7), children’s nature area, tours of the sugarhouse (Figure 8), educational lectures (Figure 9 & 17), tapping demonstrations, horse drawn wagon rides, and a Native American area (Figure 9). Approximately 750 people attended the two festivals. Despite good advertising (Figure 22), the attendance was considerably lower than previous years. We are unsure why but the unseasonably warm weather may have enticed people to consider alternate activities. New this year at the festival was a “Syrup Tasting Booth” (Figures 10 - 15) and a “Story Booth” (Figure 16) for children, both staffed by students in BIOL379 (Natural History of Maple Syrup). At the maple tasting booth, participants were given information about maple syrup grades and quality and then given the opportunity to do a blind taste-test comparing Saint John’s pure maple syrup to Aunt Jemima syrup. Reassuringly, visitors preferred real maple syrup to artificial syrup by a margin of nearly four to one (201 vs. 55). Children seemed to prefer the Aunt Jemima syrup.

**Publicity:** The Arboretum staff maintained a daily blog, posted at the following link: http://www.csbsju.edu/Arboretum/Stewardship/Projects/LandStewardship/MapleSyrup/Volunteer/DailyUpdate.htm. In addition, the following publicity/articles about the maple syrup operation appeared:


**Sap/Syrup Production:** As is tradition, we maintain our sap and syrup records on scrap boards (Fig 1 & 2). These data are summarized in Tables 1 – 3. In addition, data for all years are summarized in Table 4. During the 2012 season, we collected a total of 2414 gallons of sap on 5 different days. The first day on which there was enough sap to collect was March 15 and the last day of sap collection was March 24 (Table 1). Overall, this was an early season. By the end of the season we juggled 39 gallons of syrup, which yields a sap/syrup ratio of 61.8 with a seasonal sugar concentration of 1.4%.

From a production standpoint, this was the worst year in the 70-year history of the Saint John’s maple syrup operation. Even though we installed about 10 times more taps than in Saint John’s inaugural syruping year (1942), we made 6 gallons less syrup! It was our lowest syrup yield ever! Unfortunately we were not alone in having a poor year – low syrup yield was common among syrup-producers around the state.

As noted above, we put out about 800 taps before our Community Tapping Day. Had we not done so, we would have lost approximately 26% of the sap that was collected.
**Education:**  We provided educational tours to numerous students, from pre to high school (Figure 18 & 19). In addition, many CSB/SJU students toured the operation including those in FYS classes, Biology 221 labs, and Biology 379.

**Licensure:**  We were again licensed by Stearns County Environmental Services. We are proud of licensure and work hard to maintain it. Each year we contact Mr. Hank Schreifels, Stearns County Environmental Services, at the start of the season to schedule a time for him to visit the operation.

**Sugar Shack Renovation:**  The sugar shack is undergoing constant renovation and improvement. Kevin Sittauer, assisted by Bill Mock and several students, paneled the ceiling of the new portion of the shack. The Plant Science Alliance plans to apply a finish coat before the semester ends.

Last year, the sap pan was significantly damaged during the season. We were able to limp through our abbreviated season with the existing one. We are planning to purchase and install a new evaporator in time for the 2013 season.
Table 1. Sap Collection Data – Spring 2012

<table>
<thead>
<tr>
<th>Date</th>
<th>Sap collected (gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 15</td>
<td>350</td>
</tr>
<tr>
<td>Mar 17</td>
<td>295</td>
</tr>
<tr>
<td>Mar 19</td>
<td>795</td>
</tr>
<tr>
<td>Mar 21</td>
<td>550</td>
</tr>
<tr>
<td>Mar 24</td>
<td>420</td>
</tr>
<tr>
<td>Total</td>
<td>2,410</td>
</tr>
</tbody>
</table>

Table 2. Syrup Production Data – Spring 2012

<table>
<thead>
<tr>
<th>Date</th>
<th>Syrup (gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 22</td>
<td>27</td>
</tr>
<tr>
<td>Mar 31</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
</tr>
</tbody>
</table>

Table 3: Summary – Maple Syrup Season 2012

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td># sap collection days</td>
<td>5</td>
</tr>
<tr>
<td>Tanker loads of sap</td>
<td>14</td>
</tr>
<tr>
<td>Total sap collected (gal)</td>
<td>2,410</td>
</tr>
<tr>
<td>Syrup produced (gal)</td>
<td>39</td>
</tr>
<tr>
<td>Ratio (sap/syrup)</td>
<td>61.8</td>
</tr>
<tr>
<td>Sugar concentration (%)</td>
<td>1.4</td>
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<tr>
<td>Volunteers</td>
<td>88</td>
</tr>
<tr>
<td>Volunteer hours (excluding main crew)</td>
<td>458</td>
</tr>
</tbody>
</table>
**Figure 1.** Scrap wood board showing sap collection statistics for 2012 season. *Images from Stephen Saupe unless otherwise specified.*

**Figure 2.** Scrap wood board showing syrup production totals during 2012 season.
Figure 3. Volunteers assembling bags on Community Tapping Day

Figure 4. Volunteers receiving final instructions from John O’Reilly before heading out to tap on Community Tapping Day
Figure 5. Stephen Saupe power washing the sap pan. Image from Br. Walter Kieffer.

Figure 6. Visitors to the Maple Syrup Festival enjoying a sundae.
Figure 7. CSB student Laura Knecht painting faces at a Saint John’s Maple Syrup Festival.

Figure 8. SJU student Adam Liske giving a tour of the Saint John’s sugar house during a Maple Syrup Festival.
Figure 9. MN Master Naturalist and arboretum volunteer Mike Leedahl shows visitors how Native Americans prepared maple syrup
Figure 10. Maggie LoBianco, Julie Hulstrand, and Ryan Miller at the BIOL379 syrup tasting booth at a Saint John’s Maple Festival. Alex Yanik, on left, joined the fun.

Figure 11. Bridget Gohmann, Josie Belter, Rebecca Henle, and Nick Zweber at the BIOL379 syrup tasting booth at a Saint John’s Maple Festival.
Figure 12. Jack Wittenborg, Sarah Schmitz, and Alex Rahn at the BIOL379 syrup tasting booth at a Saint John’s Maple Festival.

Figure 13. Jacob Gran, Jessica Solfest and Rachel Cameron at the BIOL379 syrup tasting booth at a Saint John’s Maple Festival.
Figure 14. Josie Belt and Chelsea Komarek at the BIOL379 syrup tasting booth at a Saint John’s Maple Festival.

Figure 15. Paul Guzik and Lauren Furmanski at the BIOL379 syrup tasting booth at a Saint John’s Maple festival.
Figure 16. Julie Hulstrand and Maggie LoBianco, from BIOL379, at the Children’s Story booth.

Figure 17. Dan Flynn, Jake Denning and Colin Goodman, from BIOL379, patiently waiting for visitors to accompany them on a sap flow/physiology tour.
Figure 18. John O’Reilly (Arboretum Assistant Director of Environmental Education) and Hannah Froehle (Arboretum student worker) give an educational tour.

Figure 19. Young visitors to the Saint John’s maple syrup operation test the sugar concentration in the sap.
Figure 20. Br. Walter Kieffer, OSB and Tom Kroll, Saint John’s Arboretum Director, pumping sap from a collecting barrel into the transport tank.

Figure 21. Br. Walter Kieffer and Corva Kutter, the newest member of the Saint John’s Arboretum family, enjoy the traditional year-end gathering of the Saint John’s Maple Syrup crew. *Image courtesy Br. Walter Kieffer, OSB.*
Figure 22 Email sent by the Arboretum on March 23 before the first festival
Saint John’s Maple Syrup
Mission Statement

The mission of the Saint John’s Maple Syrup operation is to continue the long-standing Benedictine tradition of making maple syrup. Since 1942 the monks and their friends have gathered together to tap trees, collect sap and boil it down to produce a heavenly confection that is a testament to the forest stewardship of the Benedictine community. In addition, we strive to provide opportunities for the Saint John’s community, including monks, students, and the public at-large, to learn about, and participate in, the process of making this sustainable forest product.

updated: May 2012
Saint John’s Maple Syrup
Goals & Objectives

In 2001, Abbot John Klassen, OSB, requested that the Saint John’s Arboretum take joint responsibility with the Abbey for the Saint John’s Maple Syrup operation. A Mission Statement (above) and the following goals and objectives were established:

Goals. The goals of the Saint John’s Maple Syrup operation are to:

1. maintain the tradition of Benedictine syrup-making on campus
2. provide educational opportunities for the Saint John’s community including monks, students, staff and the general public
3. provide the Abbey with maple syrup

Objectives: To accomplish the goals elucidated above, the specific objectives of the Saint John’s Maple Syrup operation are to:

1. annually produce maple syrup and welcome visitors in the Benedictine tradition
2. collect sap and make syrup from approximately 1000 taps
3. make enough syrup to meet the needs of the Abbey and Arboretum (including festivals, visitors, and guests) and to reward our volunteers.
4. provide educational opportunities for CSB/SJU students, pre-college students, and the Saint John’s community.
5. host annually a Community Tapping Day and Maple Syrup Festivals

updated: May 2012
Oh, God of all goodness.

In the beginning you created the earth and divided it between the lands and the waters.

On the lands you created all kinds of vegetation; plants and trees of all kinds, and commanded them to cover the earth, providing both shelter and food for all.

Of the multitude of trees you have given us in this forest, you gave us the sugar maple to provide your gift of sweet sap from the healthy trees, and fuel for the cooking from the old and culled trees.

Today, following the rich traditions of our native brothers and sisters, we ask your blessing on this spring ritual of sapping.

May all the tap holes be clean and of a correct depth.

Help us to tap the spiles correctly – hard enough to seal the spile and hold the bag, but without damaging the tree, splitting the wood and losing the sap.

We ask your blessing on this season’s collecting, boiling, jugging, cleanup and wood restocking.

May you reward our labors with a fruitful harvest.

Lord, we ask your blessing on all nature.

Protect the woods and waters of our lands for generations to come.

Bless all who come out to work, observe, and visit.

May we be ever mindful of all gifts you provide for us.

We make this prayer as always through Christ our Lord, and in the power of your Holy Spirit. Amen.
<table>
<thead>
<tr>
<th>Year</th>
<th># of Taps</th>
<th>avg gal per batch</th>
<th>days between first cooking days</th>
<th>colletingd</th>
<th># tanker loads collected</th>
<th>collected per tap</th>
<th>collected per tank</th>
<th>mean tap syrup (gal) per tap</th>
<th>avg gal per batch</th>
<th>days between first cooking days</th>
<th>colletingd</th>
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