OHM BOCES Taps into Nature with Maple Syrup Production

Apr. 14, 2021 (New Hartford, N.Y.) – The Oneida-Herkimer-Madison BOCES campus got a little bit sweeter this winter with the expansion of the Conservation program’s maple syrup production curriculum.

While students in the Career and Technical Education (CTE) Center’s Conservation program have tapped a few maple trees each year to learn about collecting sap, this was the first year that they were able to utilize the program’s brand new, custom-built evaporator, filter press and bottling unit to process and bottle their own pure, local maple syrup.

Always searching for new and innovative ways to get students involved in his program, Conservation teacher Phil Lacelle came up with the idea to expand the program’s syrup production. “Along with maple syrup, we also use our on-campus woodlot to harvest wild leeks, grow and harvest Shiitake mushrooms, cut and harvest trees for firewood, and gather balsam boughs for wreaths and centerpieces for our holiday sale,” said Lacelle. Sustainability and the responsible use of natural resources are major components of the program.

Lacelle knew that with the resources available on the OHM BOCES campus, this would be a great way to expand his program’s study of sustainability and syrup production into something larger. In August 2019, the OHM BOCES was able to purchase syrup processing equipment through Peter Donahue, a maple expert from Delta Glen Maple Company and distributor for H20 Innovation.

After being on order for six months, the new equipment was delivered in February 2020, just in time for what would have been the 2020 sugaring season. But, when COVID-19 hit in early March 2020, shutting down school buildings for in-person instruction, the equipment and the program’s syrup plans had to be put on hold for another year.

The 2020 sugaring season came and went, and when students returned to campus this year, they quickly got to work preparing for sap collection and processing. Students learned the fundamental steps of making pure maple syrup that have remained the same for hundreds of years — prepare for the season.
decide when to tap, identify trees and tap them, collect the sap, boil it until it evaporates to the proper density, filter the syrup and bottle it.

In mid-January, students practiced sustainable forest management, thinning diseased beech trees from the woodlot in anticipation of the upcoming sugaring season – 6-8 weeks from early February until late March, when night temperatures stay below freezing, daytime temperatures begin to warm up and the sap starts to flow.

After February break, Lacelle and his students worked with Donahue again to identify and tap 135 sugar maple trees on the OHM BOCES campus -- a crucial part of the process. While some trees still collected sap via small buckets and bags as they had in previous years, a large number of them were now connected using an expansive tubing system that led to large containers in the woodlot and was then pumped up into a 500-gallon holding tank. Students showed their creativity and brainstormed ideas for the design, layout and installation of the tubing system, which Donahue also helped them to install.

Once the system was set up, students were involved in every step of the processing operation, from monitoring and collecting sap each day during the season to bottling and sales. Seniors set up, maintained and collected raw sap from the tubing system and had a larger role in processing, while juniors set out buckets and bags to collect sap from that part of the operation and got an introduction to the process.

After sap arrived at the Conservation Learning Center “sugar house,” students were responsible for boiling off 39 gallons of water to make each gallon of syrup, monitoring the evaporator, collecting, filtering and bottling the syrup, all of which strengthened their accountability. “Students are learning all aspects of operating a business,” noted Lacelle. “They really get a hands-on idea of what it takes to run a small business from start to finish.”

Through presales of the syrup, which benefited their FFA chapter, students were able to learn marketing skills, and since this was the first year of the expanded syrup production, they were also able to practice calculating start-up costs, running costs, operational costs and then apply those toward their sales and profits.

The program was even able to collaborate with students from other OHM BOCES programs to make syrup processing a reality this year. Students in the Welding program designed and built a stand to hold the elevated sap feed tank and students in the MiTech (Modules of Integrated Technologies) class joined the Conservation students in the woods to help collect sap and learn about the entire sugaring process. The Conservation program also continues to send raw sap to the Culinary Arts program so that students can learn about the process of turning sap into syrup in the kitchen.
In total, the morning and afternoon Conservation classes worked together to produce 20 gallons of pure maple syrup during the 2021 season. “We were hoping for more, but Mother Nature dictates what the season will bring,” said Lacelle. “After speaking to other maple syrup producers in the area, it was clear that this was a below-average year for everyone.”

Regardless of the amount of syrup that the students were able to produce this season, they have still gained some “sweet” new skills to benefit them on any career path that they choose!

The Oneida-Herkimer-Madison BOCES serves the following school districts: Brookfield, Clinton, Holland Patent, New Hartford, New York Mills, Oriskany, Remsen, Sauquoit Valley, Utica, Waterville, Westmoreland and Whitesboro.

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Photo (left to right): Oneida-Herkimer-Madison BOCES Conservation seniors Josh Rowlands (Remsen CSD) and Ethan Ulrich (Oriskany CSD) monitor the flow of raw sap from sugar maple trees on the OHM BOCES on-campus woodlot.