Success Story: Colby Elementary School Second Graders Grow Dozens of Pounds of Lettuce Indoors



In spring of 2018, Colby Elementary School teachers Jean Rosemeyer and Jennifer Peterson had never heard of Fork Farms. Less than two years later, their 2nd graders are growing enough basil, lettuce, and other greens in their indoor garden program to supplement the school district's food services.

When the Colby School District hosted the 2018 Green Ribbon Schools Symposium, Rosemeyer, who teaches 2nd grade, saw the Fork Farms growing system for the first time. Fork Farms which operates out of Appleton, designs and builds hydroponic towers for growing lettuce and other greens. The innovative, compact, and child-friendly design allows for indoor growing in a rockwool substrate. (You can read more about rockwool here.) It's perfect for programs looking to grow large quantities of fresh greens with limited space. "I saw that and I thought, this is where we need to be going," said Rosemeyer.



Rosemeyer discussed the possibility of acquiring a Fork Farms system, which costs several thousand dollars, with the school's principal. She learned that the school's interventionist, Jennifer Peterson, was applying for an America's Farmers Grow Rural Education grant from the Bayer Fund to update the school's available technology. They agreed that a Fork Farms system would be the perfect addition to the science-based grant application.

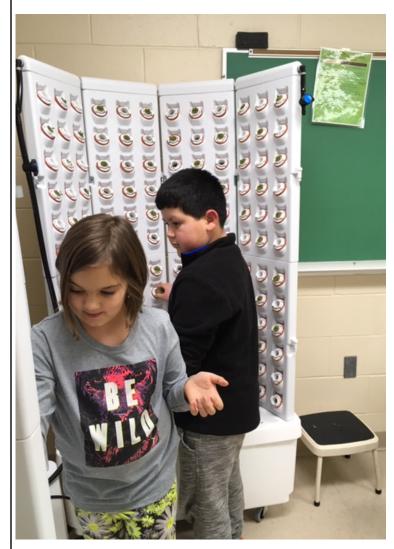
Thanks to the grant, by November 2018, the school had its first tower. Students planted lettuce seeds in rockwool pods, tended to their growing seedlings, and plugged the seedlings into the tower. They checked the nutrients and conditions, and watered the plants daily. Growing lettuce in the classroom was not immediately successful. As with so many school-based garden projects, there were limitations that came with growing plants on a school schedule. Snow days threw off the class's ability to tend to their seeds.

This story was produced by the Wisconsin School Garden Network, a program of Rooted and the UW Madison Environmental Design Lab. For more information, visit <u>www.wischoolgardens.org.</u>





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Despite these setbacks, by April 2019, the class saw their first harvest and the students saw first hand that vegetables can be productively grown in media other than soil. That first harvest yielded 30 pounds of lettuce which was chopped up and served to the more than 800 students in the Colby school district.

In addition to growing food, the towers have helped to grow students' confidence. "In the morning, I choose kids who need more social-emotional support and social learning. Sometimes they need extra support in the morning," explained Peterson. "They help me collect the water and test it and add the nutrients. We notice the plants and how they look. They record it all in a Google Form...They want to show anyone who comes that they work with real chemicals. And it's a good time for us to talk. Problem-solving and talking with them around the Fork Farm is a nice way to start our day."

The success of the first tower led Peterson and Rosemeyer to think about expanding their second grade farm. Working with the district's Food Service Director, they determined that their students could tend multiple Fork Farms systems and provide the school district with greens in the winter. They found creative ways to fundraise for two more towers. "We brought the idea around to businesses in town. We tapped into some grant money and the Future Farmers of America. Nicolet Bank was a generous donor. They donated enough to purchase one whole system," explained Rosemeyer. "But we were still about \$500 short... The superintendent came up with the idea that [the district] could pre-purchase a certain amount of lettuce from the farm so that we could pay for the new systems."

When the new towers arrived at the end of June, they served as a way for the community to experience the students' new agricultural endeavor. Since school was already closed for the summer, Nicolet Bank hosted one of the towers through the summer. With help from Rosemeyer, branch manager Heather Jeske hosted a towerful of lettuce at the bank

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and by the end of July, Nicolet Bank was able to host a free salad bar with the harvest. "They've now done 3 lettuce harvests and they did a street taco day with a full harvest of cilantro," said Rosemeyer. "It's a way to engage the community in a school project. They included a donation cup for the tacos, and all that money went back to the school so we can continue purchasing supplies for our farm."

The benefits of the towers reach far beyond the cafeteria. "The work meets Next Generation Science Standards," explained Peterson. "The kids need to answer the question, 'what are the needs of a plant' and they can see that plants can grow without soil. It expands their horizons and they can see opportunities and think about farming careers and where our food comes from." Rosemeyer added, "Kids came in and pulled on the plant and that's the first time they realized what the root system would look like. They were so long! The kids were shocked."

These days, Rosemeyer and Peterson have branched out and are growing more than lettuce in the towers. "We grew basil and the plants were 12-18 inches tall with a center stalk about as thick as a pinky," recalled Rosemeyer. At first, the students were hesitant to try the pesto that the class made from the basil harvest. "Eventually," said Rosemeyer, "I was feeding them pesto in nickle-sized chip crumbs because they loved it so much!"

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