

# Excitement over School Tower Gardens Grows

Cornell Cooperative Extension  
Niagara County

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Cornell Cooperative Extension of Niagara County (CCE Niagara) is working to give children in Lackawanna and Niagara Falls schools access to fresh, healthy, affordable foods.

### Room for Growth

Children spend most of their day at school, underscoring the important role that this institution has in promoting healthy eating. Because school gardens can support children's consumption of fruits and vegetables, schools in Lackawanna and Niagara Falls established outdoor gardens. However, their use was limited by the short Western New York growing season and school calendar. So CCE Niagara used Creating Healthy Schools and Communities (CHSC) funding to provide tower gardens to each district's school buildings. These vertical, aeroponic structures allow students to grow up to 28 vegetables, herbs, fruits, and flowers in less than three square feet.

### Year-Round Growing and Learning Opportunities

Tower gardens are perfect for a school environment. They increase access to fresh produce and are an excellent hands-on teaching tool. In addition to helping overcome challenges associated with weather, tower gardens mitigate other outdoor garden-related challenges that schools face, including cost and staffing. Tower gardens are mobile so they can be used by more students, and have timed lights and pumps to ensure care during school vacations. Water and nutrients continuously cycle through the tower to shower the plants' roots.

*"Before the tower was planted, students thought it was from outer space. When plants were added, they were very surprised. Each day as they go through the lunch line, they are amazed at the changes in growth."*  
**Ruth Kelly, cafeteria manager**



Niagara Street school garden club planting the tower garden

### Tower of Power

Since the tower gardens were implemented in March 2018, they have been used to educate students, staff, and parents. These gardens, called the Tower of Power by the Niagara Street School garden club, wouldn't have been possible without CHSC, school-community partnerships, and student engagement. The first tower garden was implemented in Lackawanna in Martin Road Elementary School's cafeteria. In Niagara Falls, students from the Gaskill Prep robotics club assembled their tower in the STEM lab. Richard Clark, the district science teacher, has incorporated tower gardens into his STEM lessons for 80 middle-school students. An after-school cooking class funded by CHSC is collaborating with the science class to use the harvest for its recipes.

The principal at Niagara Street Elementary worked with CHSC and the School Quality Committee to plan its tower garden, which is in front of the main office. Students in the garden club planted herbs and greens, helped maintain the tower, and created educational posters.

Parents and families attended a family fun night at which CHSC staff and garden club members educated parents, staff, and students on the tower gardens and healthy eating. Eat Smart New York and CHSC also held a series of cooking classes to educate parents about eating local and healthy through use of the tower garden.

Cafeteria staff at Martin Road Elementary used the harvest to make salads for staff, used herbs to make sauces, and spinach and kale to make smoothie samples for approximately 100 staff and students. These towers continue to provide opportunities to bring science, math, and other curricular areas to life. Even better, they give students brief active breaks during the day when they visit the gardens.

## Keeping Things Growing

The tower gardens are living laboratories that have increased access to healthy food, created teaching opportunities, and added beauty to the school environment. Plans are underway to ensure they keep growing; three more tower gardens will be added in the fall of the 2018–2019 school year.

The success of the gardens has fostered new partnerships and spread to the community. As a result of collaboration between CHSC and the Lackawanna YWCA, tower gardens are now a part of the YMCA summer program curriculum and will be incorporated into its after-school programming.

CHSC will continue to partner with Eat Smart New York to plan lessons for parents and students, and mindfulness clubs plan to hold classes by the tower gardens to capitalize on the calming effect of the flowing water and lush greenery.



Martin Road cafeteria tower garden



**to learn more...**

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**Creating Healthy Schools  
and Communities**

*The places where we live, learn, work, and play all contribute to our ability to become and stay healthy. Creating Healthy Schools and Communities (CHSC), a five-year (2015-2020) New York State Department of Health-funded initiative, is helping build stronger, healthier communities.*