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Charlottetown Rural High School

Student Interest in Food Production

Re-Discovering Its Rural Roots

Prince Edward Island CANADA

Canada

Strategic Policy and Evaluation Division, Department of Agriculture and Land. File 2465-06-C3. 2021/ DG-678

Just past the newly planted apple trees beside Charlottetown Rural High School, students shovel compost into more than two dozen raised garden beds in preparation for hundreds of vegetable plants that they and other students have been growing in the school greenhouse.

Across from the beds, ducks paddle around rushes in a pond while young fruit trees and berry bushes begin to bud in an area that will one day be the Food Trail.

Once surrounded by farmland, the urban school is rediscovering its rural roots.

It is all part of a project called the Charlottetown Rural High School Gardens. And it is letting students get their hands dirty while learning about food production and its links to the environment, food security, wellness, and the community.

The gardens have taken shape over the last three years with the help of federal and provincial funding from the Canadian Agricultural Partnership under a program called Community Food Security and Food Education.

Along the way, local farmers, organic growers, nurseries, landscapers and the Ducks Unlimited Wetlands Centre of Excellence have stepped in to help.

The local community has also become interested in the gardens, walking along the student-built trail in the wellness area and reading the signs identifying the plants growing there.

For teachers Stanley Chaisson and Phillip Pierlot, who first started thinking about what to do with the school's underused greenhouse back in 2014, the gardens have been a teachable moment in how to get urban kids thinking about food production.

"This project has helped make growing food from seed part of our school's identity and it's changing the way students think about food," says Chaisson, a physical education and leadership teacher who particularly likes the connections students are making between food and health and wellness.

Pierot, who teaches the school's International Baccalaureate program, says teachers have found creative ways to use the gardens to build hands-on learning into the entire curriculum.

"Our carpentry students made the garden shed, our welding students made the metal posts for the garden beds, our conservation and agri-science students are using the garden for projects, our culinary students are making meals with the produce, our Inclusive Education students are involved in the greenhouse and garden beds, and even our English program has designed projects around the gardens."

The gardens have become a school-wide hit, with outdoor classes regularly being held in the area. For the last two years, a fall harvest festival has seen a huge turnout from students eager to sample dishes made from the school's own produce.

For many students, their involvement in the project is the first time they have grown a plant.

"It's one thing to learn about the biology of plants in class, but it's definitely another to nurture a plant and see it grow

from a seed that you planted in the soil," said Grade 11 student Madelyn Iwankow as she waters long rows of potted leeks, herbs, and other vegetables in the greenhouse. Behind her, tomato and cucumber vines climb to the ceiling while worms turn waste into compost in a vermiculture bin in the corner.

"When you eat lunch, you don't necessarily think about where it came from," she says. "But coming in here and seeing things grow over time, making sure you water them and protect them from insects, it really makes you more mindful of how food is produced."

Grade 11 student Sam Sharpley says his interest in cooking and the idea of growing his own herbs brought him to the greenhouse, but he quickly became intrigued with how technology can produce food more sustainably.

The greenhouse has an automatic watering system, year-round grow lights and temperature control, and a living wall. Hydroponic growth towers now stored in the greenhouse will eventually be located throughout the school.

Sharpley is working on a project to study how conventionally grown lettuce compares to lettuce grown in spun fibres of melted rock called rockwool.

He's also built his own closed-system hydroponic system that recycles water at his own home.

"The problem with putting water on soil is that so much of it evaporates," he says. "I am really interested in technology that make it easier to produce food with fewer resources."

Frankie Hancock says she hopes to become a pilot when she graduates, but the gardens appeal to her interest in the environment and wellness.

The Grade 12 student volunteers in the wellness area and has been part of the student crew taking care of the garden beds.

"In the next 40 years, our planet is probably going to look a lot different than it does today," she says. "Hopefully in a good way. Coming out to the gardens almost every day has taught me that we shouldn't just look after ourselves, we should look after our food and our planet."

Educational assistant Alana Webster manages the greenhouse and says the experience goes beyond just learning how things grow.

"It feeds the soul and it is inclusive," says Webster, who brings students with autism and other disabilities together with other students to work in the greenhouse and in the garden beds.

Pierlot says the impact and success of the project can be measured in a lot of different ways.

"It's partly what you see, the greenhouse and garden beds, the wellness area, the orchard and the involvement of the students in making these happen.

"It's also what they are learning about growing plants and the connections they are making to food security, wellness, and the environment, and the questions they are asking about how to do things better."

But Pierlot says the strongest endorsement of the project is the students who volunteer their time at lunch and on weekends to work in the greenhouse and the gardens, who convince their parents to start gardens, and who end up seeking agricultural work placements.

"It's not unusual for someone to interrupt my class and say 'Mr. Pierlot, my seeds are up'. They are really excited."

Geoff Boyle welcomes that kind of enthusiasm.

The owner of The Grove, a 13,000-tree orchard in Warren Grove, has been working with the students and Charlottetown Rural environmental science teacher Rob Redmond to plant the school's 80-tree apple orchard.

"I get a kick out if it," says Boyle, who embarked on his own steep learning curve seven years ago when he established his orchard.

"I'm excited to pass on some of what I learned to the next generation, and I feel positive about the future when I see the keen interest of some of the students and hear the questions they have."

Redmond says the students are learning about sustainable agriculture in the orchard. The experience is also getting some of the students to think for the first time about a career in agriculture.

"They meet someone like Geoff who loves what he does, and they get some hands-on experience about what's involved in an orchard and suddenly it's on the radar, where it might never have been before," says Redmond. "From there, it's not hard to begin talking to them about other career possibilities in agriculture, about the environmental aspects of it and the science and technology."

The Community Food Security and Food Education Program has funded 46 projects, including projects to introduce more fresh produce into Island schools and educational sessions to help Indigenous youth address food insecurity.

The project was well underway when Dale McIsaac became the high school's principal two years ago. He says the project has proven its value and will be part of the curriculum for years to come.

"Our teachers have seen the skills students are learning and heard the discussions about sustainable food production, local food security and wellness, and they feel a responsibility to see this project continue," he says. "We have the greenhouse, a nursery, the gardens and the orchard at our disposal and we have big plans to make even more use of them."

Other schools are now contacting Charlottetown Rural about creating their own gardens and elementary school classes have toured the greenhouse and gardens.

"The school is called Charlottetown Rural because at the time it was built, the students were predominantly from rural farming and fishing backgrounds," says Pierlot. "Now the city has grown up around the school and the students don't have those same connections to the primary sectors.

"With this project, we are finding some of that rural again."