

Appendix A: Case examples of school farms



These case studies were conducted by Sammy Blair in the fall of 2021 as a part of her master's thesis in the Integrated Studies in Land and Food Systems program at the University of British Columbia.

This work was conducted under the principal supervision of Dr. Annalijn Conklin (UBC Faculty of Pharmaceutical Sciences) with support from members of the thesis Supervisory Committee, Drs. Lisa Powell, Eduardo Jovel, and Kerry Renwick. The full thesis is available for download.

◀ Link to full thesis:
<https://dx.doi.org/10.14288/1.04184550>
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School Farms 1 and 2 in School District A

School Farm Beginnings

School Farms 1 and 2 are managed in partnership between the school district and a community non-profit organization. To set up the farm, collaboration, and buy-in were needed across the education departments and facilities department. The Director of Instruction helped set up courses for credit (i.e. Work Experience). Thirteen separate employee union groups with collective agreements cooperated on this mixed-department project to address questions of ownership, funding, payment responsibility, and maintenance. The non-profit leased the school district land without day-to-day oversight, but any changes the organization desired or needed for the space required permission from the school district.

Farm Infrastructure and Distribution Channels

The farms in School District A had about 44 raised beds, drip and in-ground irrigation, sprayers, and large farm tools. The farms were divided into food production, food education, and learning landscape areas. The school farms' partner non-profit funded full-time staff for its production and educational programming and was responsible for other programming in BC outside of School District A.

Food was produced for a 20-week CSA for 64 people and there was a location at one high school where students could access fresh produce for free. Students used farm produce to prepare meals twice a week for about 50 people involved in the summer programming. School District A farms donated excess food to community access programs in partnership with other non-profits and would often intentionally grow food for donations. One partnership involved students working with professional chefs to cook reasonably priced meals for the school students and staff.

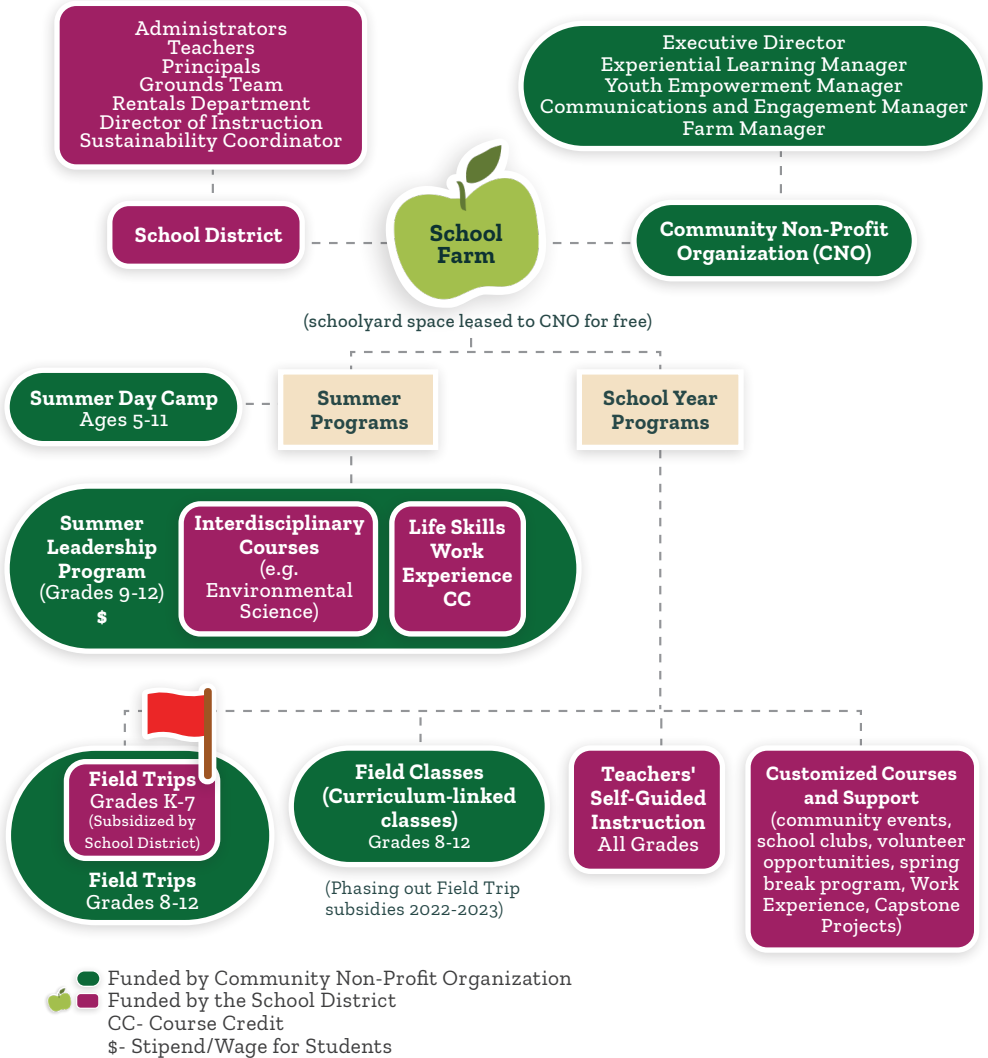
Curriculum

There was school year programming and summer programming run by the local non-profit on the school farms. During the school year there was no set curriculum as the school farms facilitated field trips, field classes, customized courses, and created classroom settings for teacher and students to achieve the goals and requirements of core curriculum and graduation. Summer programming was both a youth leadership program with a stipend for participants and an accredited course funded by both the local non-profit and school district.

Size: About 0.5 acres

Responsible for Farm Management: Non-Profit Organization

Educational Offerings: Organized by: Non-Profit Organization and School District



School Farm 3 in School District B

School Farm Beginnings

School Farm 3 was managed by a local non-profit. A large grant provided the opportunity to expand a courtyard garden started by a teacher champion into a micro-farm to test a scalable schoolyard farming model, with the support of the nonprofit and a local business that builds container farms. The micro-farm was a dedicated quasi-commercial space for growing greens for sale in the school. The micro-farm was chosen as the production space since it is modular and there is no permanent infrastructure or changes being made to the district's property; it was easier for the school district to approve the implementation of the school farm with the intention of working towards systems change that allows for inground growing.

Farm Infrastructure and Distribution Channels

This school participated in a local food hub purchasing program where they sold food they grew to the hub. The hub allowed them to purchase items they didn't grow at a discount. This business model allowed the program to sell the harvest boxes at an affordable price to staff and families. The harvest boxes were sold to 12 teachers and 12 families, which was the program's capacity and was easy to organize since food is usually ordered in dozens. Some of the money made on the harvest box program was used to pay the non-profit to lead workshops during the school year.

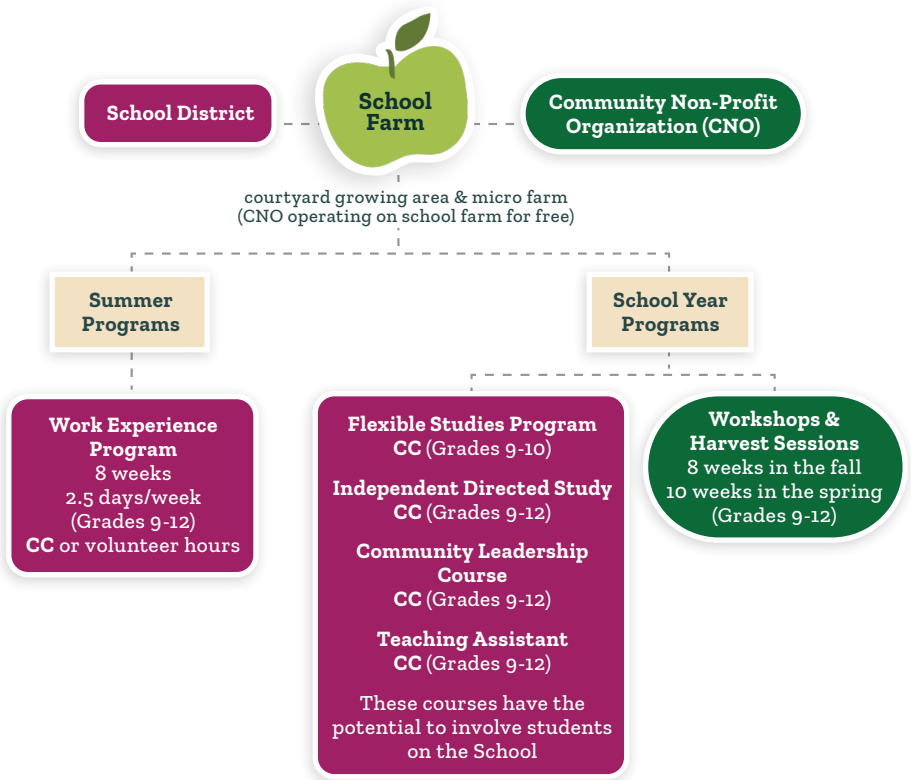
Curriculum



The school year programming consisted of harvest sessions for eight weeks in the fall and 10 weeks in the spring, where students could come out to learn about the food system and participate in harvesting food to use for the school meal program and workshops. Workshops included canning, composting, food security, and tours of the micro-farm. The district-funded summer program ran for two and a half days a week, where students helped care for the micro-farm, sometimes sold food at farmers markets or to restaurants, and then signed up for weekly shifts to sell produce at partner businesses' markets. Students also participated in workshops and field trips to local farms. The summer program could either be taken for volunteer hours or for credit as an eight-week Work Experience course (open to all high school students in the district), which students needed to graduate. The school district received money from the government for each student who completed the summer credit, and a percentage of that money was allocated to the non-profit, that ran the summer programming.

During the school year, the teacher champion supported the integration of the school farm into a few different courses offered by the school district. The Flexible Studies Program (grades 9-10) was a community-organized program that students could apply

for that integrated physical sciences, life sciences, and the humanities. The course ran every afternoon for two years in a row. If students wanted extra credits, they could do an independent directed study. Students could also take a Community Leadership course (grades 9-12) and Food Studies course (Grade 9-12) which worked with the school farm, or they could sign up to be a teaching assistant and receive a credit to assist the teacher champions in running the school farm programs.

Size: 2,000 ft, 200-250 18-inch growing containers
Responsible for Farm Management: Non-Profit Organization
Educational Offerings: Organized by: Non-Profit Organization and School District



-  Funded by Community Non-Profit Organization
-  Funded by the School District
- CC- Course Credit
- \$- Stipend/Wage for Students

School Farm 4 in District B

Farm Beginnings

School Farm 4 was managed by a sole proprietorship business in the community. A local farm and business that had its main farm site in the area leased and operated the land on the school district property for free in exchange for offering educational programming. Because the school farm was maintained as a full-time production farm, it was consistently productive, taken care of by a private staff, and profitable.

Farm Infrastructure and Distribution Channel

The farm size was determined based on how much land the farmer would need to produce enough food to sell to fund educational programming. A quarter to one third of an acre would grow enough produce to be able to pay for the whole operation to exist. The farm started with a \$10,000 grant which paid for built structures that are now owned by the school including a fence, greenhouse, irrigation, and some soil. The farm also had a 10-foot diameter Indigenous medicine garden. The farmer believed that the school's buy-in was based on the idea that the farm would be financially self-sufficient. About 80% of the produce was sold to restaurants, sold in CSA boxes, sold in upscale local restaurants, or donated to the food bank.

Curriculum

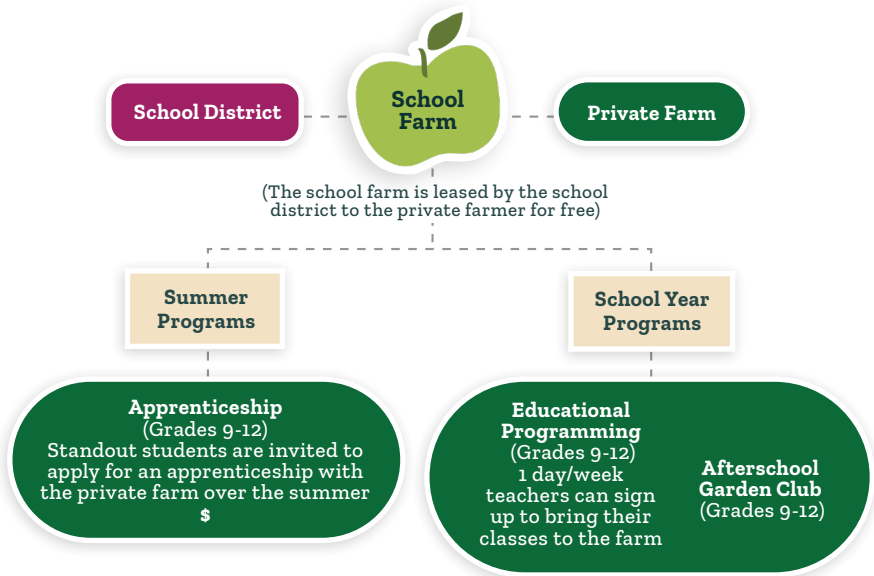
The farmer opened the site one day a week for teachers in the district to come for educational programming. Teachers were invited to bring in their own curriculum to tie into farm sessions for which School Farm 4 provided materials and recommendations. Otherwise, the farmer led students through the necessary activities on the farm for that day, grounding students in an intentional sharing and stretching circle at the beginning of class before engaging them in farm work. Students and teachers were invited to take and use as much produce as they would like during their visits. The food studies teacher is the teacher champion and worked hard to integrate their classes with school farm activities such as harvesting produce for use in their class.



Though there was no academic credit for a specific school farm course, students who were keen on working on the farm were invited to join the school's after-school garden club to continue working with the farmer and culinary arts teacher. Students with exceptional commitment and dedication to the project were invited to participate in a paid apprenticeship over the summer.

Size: 1/3 acre

Responsible for Farm Management: Private Business

Educational Offerings: Organized by: Private Business and School District



-  Funded by Community Non-Profit Organization
-  Funded by the School District
- CC- Course Credit
- \$- Stipend/Wage for Students

School Farm 5 in School District C

Farm Beginnings

This farm was owned and managed by the school district. The school farm staff members were employed teachers within the school who taught their courses out on the farm during the school year and made management and production decisions related to the farm. These high school teachers as well as teachers from the middle school and elementary school were employed by the school district over the summer to run programming exclusively on the farm. Every year, the school farm receives funding for teacher salaries and supplies based on how many students are registered. 85 students are required to make the program financially viable through school district support and community donations.

Farm Infrastructure and Distribution Channels

The farm consisted of two acres of sweet corn, two acres of vegetable beds, large bushes of a variety of berries, beehives, a greenhouse, a pump, an irrigation system, a fridge, and steel boxes for storage. There were six raised beds designated for elementary and middle school students. The school farm also raised chickens, turkeys, ducks, quail, and rabbits. [Refer to this FarmEd Toolkit for information about livestock]

The Red Seal culinary arts teacher employed by the district utilized the produce from the farm for meals sold at lunchtime through the cafeteria. Students who made the food in this class would often purchase the meals in the cafeteria. Sometimes, there was excess food, so the school farm would donate it to the culinary arts program and, in exchange, the culinary arts course would cook food for the school farm courses to share. There was a reciprocal relationship between the programs.

The farm also sold produce to the resource program, and through public sales; students also took a lot of the produce home. The main fundraisers for the school farm were a plant sale and a 14-week CSA for 30-40 people, both of which were entirely student-run. The school farm also supports food access programming by distributing food to a non-profit that made soups and food daily for 850 food-insecure students within the district and preparing harvest bins for another non-profit that supports women and families transitioning out of abusive situations. The school farm inconsistently sold produce to restaurants and local grocery stores but had to rely on people donating their time and appropriate vehicles to transport the food.

Curriculum

Students had the opportunity to take five agricultural courses throughout the year (this varied slightly on a year-to-year basis). One of the courses allowed them to get credit for a local university agriculture course. First semester courses tied to the farm finished gleaning the summer harvest and focused on the greenhouse and classroom learning of agriculture. Then in February, the second term course started with book work and moved into planting seedlings. Most of the production happened during the summer program. The school farm teachers hosted classes on field trips and gave tours throughout the year to allow more teachers to get involved. For the elementary and middle school teachers who had their own raised beds on the farm, the teachers would go through training with the school farm teachers so they could manage their gardens and come with their classes independently.

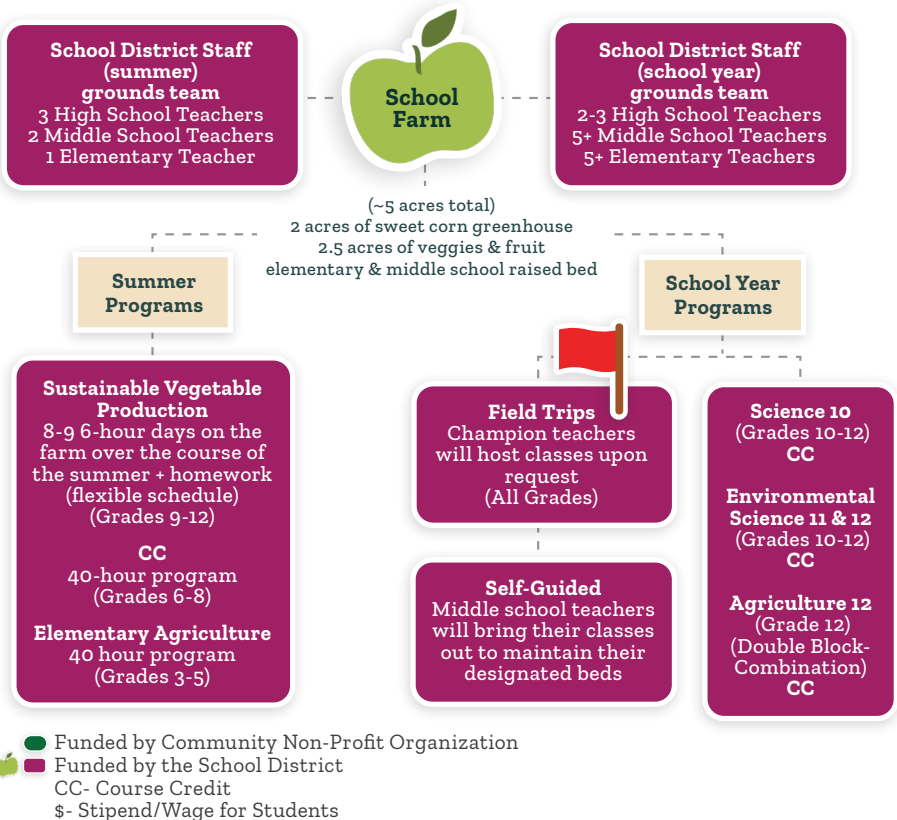
During the summer there was a production-focused Board Authorized course. Recently, the average number of students that participated in the summer program was 90 high school students, 25 middle school students, and 25 elementary school students.

For the summer programming, grade 8 students were recruited so they could start taking high school courses before getting to high school. They had the opportunity to meet teachers they were going to have in the coming years and met new friends before entering secondary school. Students in grades 8-12 came eight or nine times over the summer for six-hour days. The culinary arts teacher came in to do cooking days and students were required to take food home and prepare it as part of their homework. Students could choose their own schedule throughout the summer and could sign up for whatever eight days worked best for them. This allowed students the flexibility to enjoy their summer breaks and earn course credit, and it dispersed the 90 students so there were fewer people on the farm at any one time, which allowed the school farm teachers to take a week off or go on summer holiday.

Size: 5 acres

Responsible for Farm Management: School District

Educational Offerings: Organized by: School District



School Farm 6 in School District D

Farm Overview

This school farm was owned and managed by the school district. While the school farm had designated staff, these staff were teachers employed by the school district. Since the pandemic, the school district partnered with a non-profit to bring in a farmer who maintained the production side of the farm and occasionally taught workshops on soil health. Participants from this district included a school farmer (funded by a non-profit), the school farm program coordinator and teacher, and a community volunteer who worked with the program and is also a retired teacher.

This program was free because the district wanted there to be “equitable access to food knowledge.” Funding for the farm program came largely from the School District. They paid for teachers, education assistance, a part-time administrator, the operating costs for the building, bussing, supplies, custodians, etc. The local Farmers’ Institute hosted an annual gala and donated the proceeds to the school farm to support students who wanted to become local farmers. Community members also helped fund and support the program; a seed company offered discounted seeds; and a local hardware store offered students discounts on gloves and equipment.

Farm Infrastructure and Distribution Channels

The school farm was located on a parcel owned by the district which used to be a primary school. There was a main building with a meeting space, classrooms, two industrial-size refrigerators, a kitchen, a gym, and offices. The farm had a hoop house. Having a building on site increased the operating costs of the program. School farm food was sold through an honor box farm stand, a 25-person CSA, and excess was given to the non-profit-run 68-person CSA or the local food bank. Proceeds from the farm during the growing season went to the non-profit for the management of the farm. Guidance counselors also informed parents that they were welcome to a weekly full bag of food if they wanted it. The school farm partnered with another non-profit where a chef came in a few days a week to help the kids make lunch for the 25 people in the program.

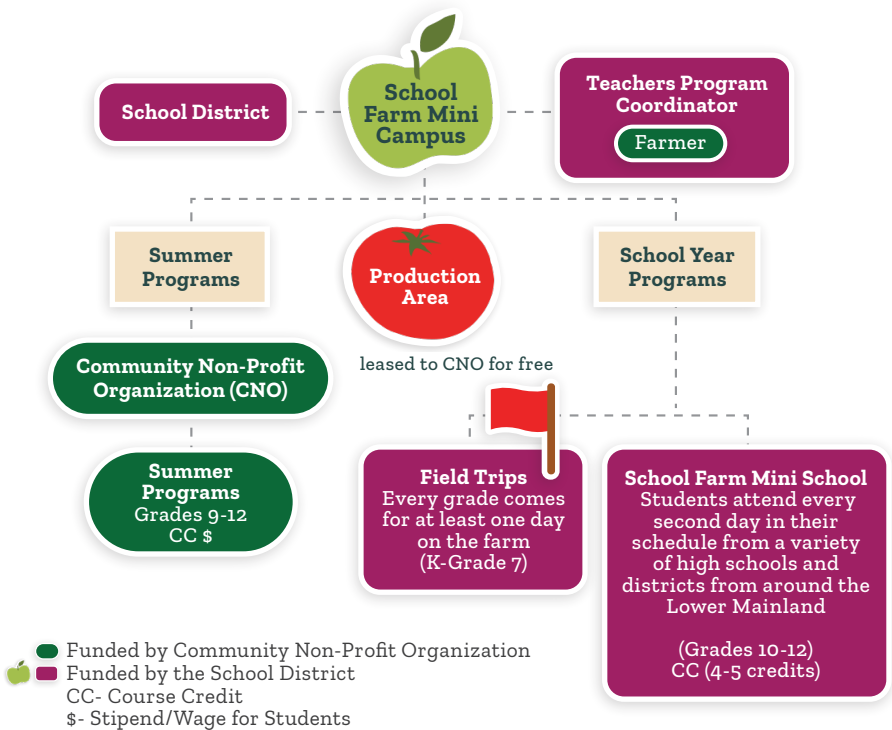
Curriculum

Students received four course credits (50% of their total annual credits) by attending school year programming. Their schedules alternated between Day 1 and Day 2 classes, like an academy, so they came to the farm during Day 1 days and returned to their traditional courses at the high school for Day 2. In September to early November, students were mostly learning outside, and then late November to February was intense classroom learning with experiential activities inside and occasionally outside. From March to June, classes were back out on the farm. Enrolment was lower in Grade 12 students because the school farm program required them to miss out on 50% of their senior year, including in-school graduation events. The full-time participants were in grades 9-12. Every class in Grades 1 through 6 attended at least one field trip day on the farm.

The summer leadership program was run by three interns from the partner non-profit who came in early June for a crash course on the farm before running the programming for six weeks. The summer students spent half the day doing farm work and the other half of the day in courses or workshops. Student participants were paid a stipend at the end of the summer. The program coordinator was a classroom teacher who made connections to agriculture and farming and then also ran the farm program, sourcing seeds and materials and planting everything prior to the farmer coming on board.

There was no interview process for students to be a part of the school year school farm program. Many students wanted to continue their work from the summer programming and signed up for the courses during the school year. Students could contact their guidance counselors to sign up or they could be referred by their guidance counselors or school administrators. The farm hosted site visits and an open house so parents, students, and counselors could come and view the farm together and ask questions before signing up.

Size: 8 acres
Responsible for Farm Management: Non-Profit Organization
Educational Offerings: Organized by: Non-Profit Organization & School District



School Farm 7 in School District E

(This farm was not part of the case study. Information reported here is from February 2023)

Size: 0.1 acre farm and medicine garden, 0.08 acre orchard, 7 acre healing forest
Responsible for Farm Management: Non-Profit Organization
Educational Offerings: **Organized by:** Non-Profit Organization and School District

Farm Overview

School Farm 7 is an alternative educational program based on Indigenous ways of knowing. In partnership with the school district, the non-profit aims to work with youth, staff, and Knowledge Keepers to build community connections to the land. The non-profit funds a 0.8 FTE educator position who, supported by the organization's experiential learning team, leads the farm planning and maintenance as well as the educational schoolyear programming. Support and learning opportunities for this role are also provided by the Indigenous Education Department team. Dedicated volunteers help weekly with general farm maintenance and tasks.

Two Indigenous Educators working with the Indigenous Education Department of the School District kickstarted the garden program by building medicine wheel beds, and youth workers and teachers started working with youth in the garden. At the end of that year the greenhouse was built in preparation for a native plant propagation program. The non-profit signed an MOU to maintain the garden, run programming, and work with the community on a visioning process to guide the project moving forwards. One of the main visions is to create a natural oasis where fun, traditional, intergenerational learning could happen. There is an annual review of programming and how work aligns with the shared vision for the site.

Farm Infrastructure and Distribution Channels

The farm has a small and heated greenhouse used for native plant propagation, starting seeds and growing hothouse crops. The farm uses in-bed and drip irrigation. There is also a semi-permanent harvest station set up to support vegetable harvesting and processing for the market. Farm equipment is mainly hand tools but the non-profit shares a seeder and flame weeder with other school farm sites.

Medicine Garden: Four sacred medicines are grown: Tobacco, Sage, Sweetgrass, and Cedar. Students are involved in growing and processing for use in programming with Indigenous Educators.

Healing Forest and Salmon Stream: There is a small trail system in the seven-acre forest, an outdoor classroom with a large chalkboard, and four large, metal picnic tables.

Native Plant Nursery: native plants from the nursery are reintroduced to the forest (e.g., thimbleberry, Sitka spruce, and dune willow) where invasives are removed. They are also used as part of programming and are available for purchase at a weekly seasonal market.

Food production and distribution: Food grown is used in school programs (spring and fall) and summer youth and summer camp programming. The nonprofit runs a weekly market on-site every Thursday starting mid-May through to mid-October as well as a small (five to ten) shares CSA program. Students help to harvest the vegetables as well as set up the market stand each week. During the summer months, local youth in non-profit programming help with harvesting, and running the market.

Curriculum

A schoolyear weekly leadership course is offered. Summer programming is both a six-week youth leadership program with a stipend for participants and an accredited course funded by both the local non-profit and school district. The nonprofit also funds and runs three to four weeks of summer day camp programming for children aged 6-12.

Plans are in place to develop a field trip program where the nonprofit will lead field trips one day per week (spring and fall) in collaboration with partners. The aim is to also have an Indigenous Knowledge Keeper be part of the field trip programming.

