Draft
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Agri-Literacy in Delta

A clear path to success

BACKGROUND

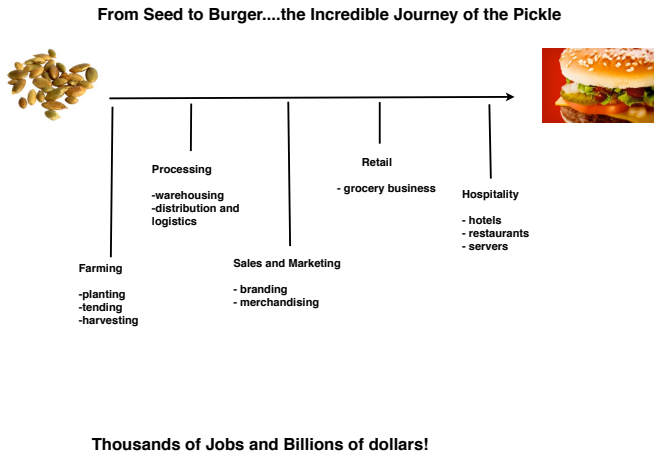
In June of 2012, Two hundred students at Pebble Hill Traditional School planted two hundred cucumber seedlings on their newly built school neighbourhood farm. This was the birth of Project Pickle, a program designed to teach kids in the Delta School District aspects of agri-literacy.

Over the course of that summer, students from South Delta Secondary tended to and harvested the bountiful cucumber crop and planted secondary crops for the children at Pebble Hill to harvest upon return from their summer vacation.

In the fall of that first year, students were taught how the pickling process works and they harvested their secondary crops of arugula, spinach, swiss chard and beets which they portioned, washed and bagged to sell the back to their parents at parent teacher conferences in what we called “Green for Greens”. The funds went back in to the school to buy supplies for the school farm.

Concurrently, the school neighbourhood farms were expanding to include English Bluff, Cliff Drive, Beach Grove and South Park. Today there is infrastructure on 19 underutilizes school owned lands. In peak periods, about 30 classes and 700 students participate in Project Pickle activities on a weekly basis

The endeavour is named Project Pickle as it describes to the children the incredible journey from seed to burger.



Where food comes from is, for the most part, a mystery to most children. Relatively recent programming initiated in the United Kingdom, Australia and the United States is starting to take hold in Canada and elsewhere as it is becoming increasingly important for young people to consider keeping the food economy robust by participating in the hundreds of job types available in the sector.

In British Columbia, the food economy is a major contributor to our GDP, generating $14 billion dollars. The current government wants to see that grow to $17 billion. In order to accomplish this goal, bodies are needed on the farm, in distribution and logistics jobs and on the front lines of marketing and retail.

Education around farming, agriculture and the food economy has been identified as hugely important by all three levels of government. For its' part, the Corporation of Delta says that agriculture will thrive if…

- The agricultural sector is highly productive, creating efficient production systems and significant value added activity, assisted by well functioning infrastructure

- Local agriculture effectively services local and non-local markets

- Agriculture's ecological and social attributes are recognized by and cost-shared with society

- ***Farming is attractive and accessible, providing a successful alternative career for younger people and new entrants***

- ***Agriculture will have successfully adapted into the future by adopting new technology, embracing innovation, adjusting to climate change, and reducing reliance on fossil fuels.***

Additional recommendations include:

15. Enhance relationships with Delta farmers, secondary and post-secondary education institutions, agricultural academies, ministries and associations to facilitate events and initiatives to provide new/young farmers with training, mentoring, technical expertise, production knowledge, and access to agricultural programs that would promote knowledge transfer and build capacity in smaller scale farming (section 5.3.1, p. 9).

16. Explore and support farming models that develop stronger connections between the farming community and the local marketplace and encourage new

agricultural enterprise, such as community supported agriculture, cooperatives, local food alliances, and community networks (section 5.3.1, p. 10).

23. Support and expand opportunities for community gardens/urban agriculture demonstrations to promote agricultural awareness, through additional funding, supportive bylaws and provision of land (section 5.4.1, p. 12)

24. Support educational initiatives including agriculture in the secondary school curriculum (agriculture in the classroom), SRD 4-H and agriculture forums for municipal staff and politicians, engaging the Delta School District, Fraser Health Authority, and Metro Vancouver to host (section 5.4.1, p. 12).

Project Pickle is working toward meeting these objectives in Delta in the hopes that children in our school district gain an interest and appreciation for farming and Horticulture.

But, beyond the importance of keeping this sector healthy, Project Pickle contributes to many other aspects of our children's education.

Life Skills

Perhaps the most obvious long term benefit to the participants in the programming is the simple act of growing fruits and vegetables from seed and seedlings. The process is not as simple as it sounds and experimenting on the farms have shown many successes and a few failures that large and small scale farmers face every season. The children learn the value of soil quality and generally participate in two or more composting sessions a year. Our young farmers are taught the difference between the districts' "organics collections" and composting via vermiculture.

These skills will stay with our children as they grow and move out on their own. All of our kids will understand what they can grow and when, and will enjoy the end result at harvest time. The children are also taught the value of food and the economics associated with the cost savings of growing their own. They gain an understanding of what a box of crop is worth and you can see the lightbulbs go off when they consider the value of their crops.

Physical and Mental Well Being

It has been well documented that learning outside provides an opportunity to benefit from the physical activity that is inherent to gardening and farming. Intermediate participants have assisted in building garden frames and hauling many yards of soil.

An interesting aspect of the program is that it seems that some children who do not necessarily thrive in a traditional classroom environment seem to excel in the group dynamic that exists on the school farms. The spirit of cooperation that is promoted through Project Pickle fosters a sense of pride and accomplishment by successfully navigating the life cycle of fruits and vegetables and tasting the rewards at harvest time.

Working outside has been shown to decrease high blood pressure, childhood obesity, type 2 diabetes and promote muscle and joint strength.

Nutritional health is a big part of Project Pickle and the health benefits of the vegetables they choose to grow are discussed prior to planting. For the most part, the young farmers are given the opportunity to taste samples of the food before the seeds get in to the ground. Additionally, we have several “tailgate parties” during the course of the year in which freshly made salads are dished from the back of my pickup truck right at the school farm. This is a huge hit with the kids.

Science and Math

Farming requires several aspects of science and mathematics that afford students opportunity to learn in a new environment through Project Pickle. The very nature of planning to seed, crop rotation, composting and chart reading are all math and science related but are generally disguised as such as they are somewhat subtle lessons and different from traditional math teachings in the classroom. The following is a list of some of the aspects of math and science that are included in the project.

- soil science (understanding ph)
- composting as opposed to organic waste
- seed spacing
- crop yields
- economics
- the science of pickling

Besides the science and math aspect are general discussions about marketing, merchandising and retail. particularly as they relate to producing an end result of a jar of pickles.

Community Enterprise

The School Neighbourhood farms in the Delta School district allow our children to see the lifecycle of food first hand before class, at recess, lunch, after school and on weekends when they are playing in the playground. The children are generally thrilled to watch the process and more often than not, point out progress to their parents at drop off and pick up time.

We are lucky in the Pacific Northwest in that our climate allows us to produce enough crop to harvest three times a year. Generally the kids harvest one crop before summer break. One crop is harvested in the summer and yet another in the fall. We have successfully overwintered several vegetables which has allowed for a smaller 4th crop.

In keeping with the notion of community, some of the Project Pickle summertime harvest finds its way to the food bank. The children understand how appreciative people in our community are of fresh local produce. In the past, some of the other produce has gone to local restaurants and to promotional events such as the “Southlands Bike In”.

Our students are encouraged to come to their farms in the summer months as well and are given instructions on what and how much they can take home to their families.

Summer Maintenance

This past summer was fairly manageable as we did have some rain in July. The two summers prior were very warm indeed and the biggest challenge was providing adequate water for proper plant growth. “Farmer Mike” was able keep the farms producing but did have to hire a third party contractor to assist with irrigation.

In the past we have hired high school students in first summer jobs to maintain some of the farms and will likely pursue that type of relationship with Farm Roots.

We would like to keep families involved in the farming and maintenance of the school farms and are considering soliciting volunteers to take on a week or two of maintenance activity during the summer break.

Project Pickle, Farm Roots and the Future of Agri-Literacy in SD37

Where we live, farming is a big deal and it always has been. We have all heard the somewhat depressing facts regarding the average age of farmers and how the idea of the family farm is increasingly becoming a notion of yesteryear.

This is problematic on many levels as bodies are needed to maintain and expand farming operations here in Delta and elsewhere.

Luckily, statistics Canada is reporting that there has been an increase in younger entrants to farming, particularly in niche and urban farming operations. Large scale commodity based farming is prohibitively expensive and is an out of reach dream for most young people.

Succession on the family farm is also a daunting situation and most children are resonate to absorb the costs of leasing land and equipment that is necessary to run a successful farming operation. Many farmers in British Columbia and elsewhere have had to taken on second jobs off of the farm to pay for ever increasing costs as value of crops produced decrease due to external market pressure.

What does the future hold for farming and jobs in the food economy? This is a question that is difficult to answer but the Delta School District recognizes that it is an important question nonetheless.

In September of 2016 the first cohort of the Delta FarmRoots program began.Twenty-four grade 10-12 students from Delta Secondary moved in to a new home at the retrofitted Boundary Bay Elementary school. Every second day the students are tasked with developing an understanding of farming, agriculture and the complexities of the overall food system.

The Delta School District has partnered with Kwantlen Polytechnic University and its “Sustainable Food Systems“ program. This is a progressive program in which alternatives to our traditional view of agriculture and horticulture are explored. In the context of a regional food system, the Farm Roots participants will be able to recognize how future farming opportunities may help to ensure a sustainable regional food system.

This semester will see in class instruction from Dr. Rebecca Harbut from KPU who will encourage critical thinking to best understand complimentary food growing possibilities. Project Pickle will continue to expand within the district in the hopes that we can steer our K-7 students toward an interest in food and jobs in the food economy for the many benefits that we have identified.

In the next couple of years it is hoped that an agri-literacy path will be clearly identified so that interested and engaged children in our communities can pursue a post secondary education in farming and the food system in the hopes of gaining meaningful employ in a multi billion dollar sector.

A Moving Target

Over the past few years hundreds of our students have enjoyed the fun associated with ProjectPickle.

For my part, it has been the consistency of recognizing the talent and genuine interest that is being nurtured within each classroom. It is common to see three or four kids excel within the program.

Logistically, it has been a challenge to ensure that these kids have the opportunity to participate every year. Educators take on new classes, some educators do not have the time or inclination to take the programming on, principals move to new schools and some schools have not been interested to date.

Project Pickle was never intended to be a make work project. Rather, it was created to offer alternative learning opportunities in what has traditionally represented the “Bold Vision” of the Delta school district.

These learning opportunities tie in nicely with the new curriculum goals developed by the Ministry of Education.

The ultimate goal for our school district is to provide a linear path so that students interested in agri-literacy can pursue their interests. It is hoped that by working together we can keep the momentum going through Project Pickle to feed the senior programming at Farm Roots and in turn to post secondary education at KPU and to ultimately securing jobs in an exciting industry.

RESOURCES

http://www.delta.ca/docs/default-source/community-planning-and-development/agricultural-plan/delta-agricultural-plan.pdf?sfvrsn=0

http://www.farmtocafeteriacanada.ca/wp-content/uploads/2014/06/GrowingHealth_BenefitsReport.pdf

http://edibleschoolyard.org

http://www.jamiesfoodrevolution.org

https://curriculum.gov.bc.ca/competencies

http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/strengthening-farming/planning-for-agriculture

http://www.bycoop.ca