



Growing Forward 2

Local Foods Production in the NWT Inuvik/Delta Region

2013 - 2014



Table of Contents

A Plan for Development of Locally Based Foods Production 1

Demographics 2

Current Status Local Foods Production 3

Provision of Workshops 5

Supplying the Community..... 6

Supporting Initiatives..... 8

Outcomes 9



A Plan for Development of Locally Based Foods Production

Within the programming of the new GF2, as well as SEED and Northern Foods Programming, the Beaufort-Delta region will move to ensuring maximum levels of program delivery aimed at increasing local foods production as it applies to traditional land based gardening, greenhouses, small animal and poultry, wild edibles supplementing existing local foods such as fish and wildlife. This will be accomplished through delivery of school based educational sessions aimed at students, community based educational and workshop opportunities as well as extensive on-site, in-community assistance. As the GF2 and complementary programming proceeds, it is anticipated that all communities in the Inuvik Region, including the coastal communities, will have local foods production systems established and fully functioning. Use of new technologies and innovation may play a substantive role in achieving this goal however standard proven methodologies of production will always be given precedence.





Demographics

The Inuvik/Delta Regional base is located in the northwestern most corner of the NWT and is comprised of 8 communities. While three of the communities, Inuvik being the largest and the regional center, are accessible by year round road (freeze-up and break-up discounted) the other five are considered isolated as access is restricted to air and water. Aklavik and Tuktoyaktuk have ice road access during winter.

Community development by the Community

Over the past number of years, interest in growing food locally has increased to the point where it is a common topic of conversation. The Delta region sees very high transportation costs and although local grocers provide an outstanding service relative to provision of fresh timely produce more and more local residents are keenly interested in growing their own fresh produce. The Inuvik Community Greenhouse undertook an enormous project in the 1990's converting a hockey arena to a community garden under glass. With both public and commercial components this is seen as having a significant future role in supporting development of the local foods industry in the region.



From NWTA 1



Current Status Local Foods Production

The Canada/GNWT Growing Forward First initiated focused programming in the region in 2011 at which time the primary foods production initiative was centered in the community of Inuvik with the community greenhouse. This is a former arena renovated to a large community garden under glass with the upper area converted to a commercial greenhouse growing system. This facility has been in operation since 1999 and has gained international attention as Canada's northern most greenhouse and local foods production project. The facility; although it received significant financial support from government at its start is primarily driven and funded through volunteer efforts and participation.

The Greenhouse has 2 mandates; one as a commercial operation and the other as a "community garden." Both activities complement each other. The lower component operates as a community garden with some 140 operational plots rented by members.

The upper area, formerly a viewing area, commercially produces bedding plants for the member's gardens as well as generating income through commercial flower, bedding plant and vegetable sales to Inuvik and surrounding communities. The Greenhouse would not be able to survive or even exist without the commercial side of the operation. Last summer the Town of Inuvik started an "Arctic Market" held on Saturdays in a local park. This was very well received by the community and the Greenhouse was able to sell herbs, salads and other vegetables. It is expected that available produce and sales will increase in the summer of 2014. Finally, the greenhouse and community garden growers make compost available to the benefit of all growers.

The Inuvik greenhouse is seen as having significant future impact on development of local agri-foods production in the region and could, once stabilized, provide technical and operational support to other communities in development of their systems and projects. The Inuvik greenhouse has been a model for other northern greenhouses around the circumpolar world such as Nunavut, Iceland and Russia.





Current Status Local Foods Production

Other privately initiated projects in Inuvik have included smaller poultry operations. This emphasizes the importance of involving and supporting local people for long term benefit. While transients can play a significant role in initiating projects, without involvement of local residents, projects are tenuous at best and funds and resources result in only short term notoriety and benefit.

Ft. McPherson and Tsiigehtchic are also located on the major road system and as such have relatively easy access to materials and supplies either from Whitehorse, Yukon, southern suppliers or merchants in Inuvik. Originally the two communities considered establishing centralized community gardens however issues relating to access, control, and cost of centralized sites associated with lack of readiness and policy by communities moved persons to focus more on backyard gardens. There is however a sense of community in the approach taken involving discussions and cooperation among those involved.

The community of **Aklavik** has expressed interest in a central community garden for a number of years. Aklavik has a long history of agriculture production. From the late 1930's to the mid 1940's dairy and beef cattle were raised in addition to poultry. Both hospitals and residential schools, Anglican and Catholic, were supported extensively by large local gardens. Hay, barley, oats and peas were grown for feed on 30 acres of cleared, farmed land. Cattle were grazed on 60 acres of pasture. The notion of local foods production is neither unique nor original. Aklavik has relatively good alluvial soils that are accessible.

Tuktoyaktuk began participating in the Canada/GNWT Small Scale Foods program with the construction of a greenhouse in 2011. The hoop frame bed growing structure 24' x 30' is located centrally in the community and last year had up to 10 members participating in growing produce. 2013 did test members in that it was an unusually cold year and production was hampered. Enthusiasm is still high and planning is underway for the 2014 season. The community group has grown potatoes, carrots, various leafy greens, peas and beans.



Provision of Workshops

Over the winter and spring of 2013, workshops were held in the four communities with established garden projects. Workshops included involving students in all classes of the community schools in planting seeds, learning nutrition and instilling an interest in what would be happening in the upcoming season. In addition to the school workshops, evening workshops were held in all communities. Small light based growing systems were provided to each school in addition to growing media, seeds, and promotional material.

During the summer of 2013 a student was hired working under the direction of the Agriculture, Agri-foods and Commercial Wildlife Development Consultant. The student; Rena Squirrel is originally from the area and is well known to very many people in the regions. This association helped immensely in making inroads to community contacts and generating interest. In fact the community gardens and local foods was a topic of discussion at the Midway festival.





Supplying the Community

In 2012, a container was shipped to Inuvik containing materials designed to enhance local foods system and supply materials that were not easily obtained in the communities. The container included bed construction rough lumber, growing media, fencing materials, fertilizer and growing containers. In addition, a good deal of growing media was purchased through the local hardware store. Materials were used by the Inuvik Community Greenhouse as well as the other road communities. More materials are being planned for the next couple of years. Owing to logistics and cost of transport, barge shipping has been determined to be the most inexpensive shipping method. Akklavik has had some materials brought in in previous years and it is anticipated that a significant component of their needs will be transported in this spring on the ice road.

Seeds and other minor inputs have been supplied to the communities for the past year and this will continue for the next couple of seasons. Classroom based growing systems have been supplied to all schools with additional systems making their way to Akklavik and coastal communities (see coastal equipment). In the upcoming season additional supplies will be placed in the established projects.

Coastal Community Supply

The three communities of Paulatuk, Sachs Harbor and Ulukhaktok are extremely isolated and until this year have not had any participation in the local foods programming in the region. Over the last summer season, contact was made with representatives in the communities and all expressed interest in initiating some form of local gardening/ local foods project. In general, the program model encourages use of local resources and assists in identifying and accessing such resources as overburden soils, local lumber and anything else that may be of use. This has, in other communities resulted in trips to the dump and using containers such as old bathtubs and outboard engine cowlings for growing containers. Given the high costs associated with provision of materials to the coastal communities, it is recommended a shipping container be put together for each community with the essentials to allow for their projects to move forward. This will include materials for a greenhouse based system as well as those to allow for establishment of indoor public building systems. The concept of using public spaces is seen as having a high degree of relevance and application in these communities as these buildings, are heated all year, are lighted for about 12 hours per day and generally have vacant spaces which could be used to plant vertical growing systems. This approach is seen as the most practical way to approach local growing methods in the upper most regions.



Supplying the Community

Each container shipped will include the following materials as a minimum:

8' x 20' shipping container (sea can)*	\$5,000
1 x 18 x 24 greenhouse package 7.5 oz. Woven cover	\$5,000
10' x 10' shed package	\$1200
2 pallets compost	\$1,000
2 pallets growing media	\$3,600
Tools and assorted materials	\$2,000
Solar Thermal System	\$5,000
Solar Electric System	\$5,000
Water storage and pumping system and pumping system	\$4,000
●●● lift 2x10x16 rough lumber	\$700
500 lbs. lime and fertilizer	\$500
10 rolls wire fencing	\$500
5 Indoor growing system complete with lights and trays	\$2,000
Shipping	\$6,000
Total per community	\$41,500.00

*The sea can will be used as secure storage and also act as a header house and eventually be modified to a growing chamber at some point if warranted.

The initially involved communities will continue to receive required materials via a single container shipment to Inuvik containing the same materials as a base which will be supplemented as required. The primary component required in all communities is the greenhouse package. The system indicated is appropriate in terms of value for money with a 7.5 oz. woven transparent cover which has been shown to be more resilient in severe conditions and abuse than typical 4 or 6 millimetre poly.



Supporting Initiatives

The local foods initiative (Small Scale Foods) has progressed throughout the NWT since its beginning in 2007. The program initially focused on accessible communities in the southern part of the NWT and progressed northward as communities became more independent and less reliant or secured other means of support. As with development of the local foods programming throughout the NWT, the Delta communities will evolve and become increasingly less reliant on programming support. The last two seasons saw significant involvement by ITI agriculture staff in the developmental progress. Both years involved active support by students hired through the programming and working under the direction of the Agriculture, Agri-foods Consultant with ITI. In conjunction with this, the Inuvik Greenhouse (IGS) staff was encouraged to participate in community program delivery as time permitted. The IGS is seen as having a very important role to play in program delivery, which is supported by Greenhouse Board members. The organization has on most years hired a professional greenhouse manager to oversee operations and provide support and advice to persons involved in the lower community garden. A significant portion of the operation revenues are generated through the commercial area located in the upper part of the house. This pays for the manager wages and provides bedding plants and flowers to the local community. Over the past few years the Small Scale Foods initiative has purchase all bedding plants from the house for both the region and other regions. The program has also used the GHS as a training component for student staff. If the GHS can bring together a business plan which sees a professional manager on staff, it would be more than reasonable to envision their taking on a leading role under contract to the Growing Forward Program to deliver, in support of the regional office and the Agriculture and Agri-foods consultant, the entire local foods programming in the region. This would provide a valuable local training and delivery resource for the communities while providing for a revenue stream for the greenhouse operations.





Outcomes

Over the next couple of years it is anticipated that the road based communities in the region as well as Aklavik will essentially become independent in setting direction for their local foods initiatives. As seems to be the norm, there will no doubt be interest in expanding or diversifying to small egg and poultry flocks as well as possibly small animals. In addition the programming will encourage the identification and use of local wild foods for subsistence use with an eye to possible commercialization. The coastal communities will require significant support and most definitely a unique approach based on sound practical knowledge in meeting expectations.

The next two seasons will ideally see support students in place; however this is yet to be determined.





Outcomes

Delta Small Scale Food - Action Plan 2014/2015

Target	Involved	Time Frame
Provide Spring Workshops to communities with existing local foods initiatives. Includes schools and community based.	Gene, community EDO responsible, Rena. Possibly greenhouse representative or manager if hired.	April 2014
Prepare a detailed listing of existing assets available to programming in the region.	Rena.	April 2014
Prepare and compile resources and materials to be provided to communities. Seed, amendments, literature.	Rena, designated regional personnel.	April 2014
Initiate contact with coastal communities and begin process to provide workshops and deliver required equipment.	Gene, Rena, EDO.	May 2014
Begin purchasing and assembling of containers to be delivered to coastal communities with foods production equipment.	Gene, additional staff.	May 2014
Work with Inuvik GH to ensure deliverables to communities, such as bedding plants and required materials.	Rena, additional staff.	May 2014
Provide support to communities through extension advice, provision of workshops as requested.	Gene, Rena, additional staff.	May to August 2014
Conduct at least one workshop and information session in each of the coastal communities.	Gene, Rena.	June to August 2014

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