



NORTHWEST TERRITORIES AGRICULTURE STRATEGY

# *The Business of Food: A Food Production Plan*

2017 – 2022

STRATÉGIE AGRICOLE DES TERRITOIRES DU NORD-OUEST

## *Le commerce de l'alimentation : pour un plan de production alimentaire*

2017 à 2022

Le présent document contient la traduction française du résumé.

NORTHWEST TERRITORIES AGRICULTURE STRATEGY

# ***The Business of Food: A Food Production Plan***

Prepared by GNWT Department of  
Industry, Tourism and Investment

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English

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French

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Kĩspin ki nitawihitĩn ě nĩhĩyawihk ōma ācimōwin, tipwāsinān.

Cree

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Tłjchq yatı k'ĕĕ. Dı wegodı newq dĕ, gots'ō gonede.

Tłjchq

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ᑭerihł'ıs Dĕne Sųłĩnĕ yatı t'a huts'elkĕr xa beyáyatı theᓵ ᓵat'e, nuwe ts'ĕn yółtı.

Chipewyan

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Edı gondı dehğáh got'je zhatıĕ k'ĕĕ edat'ĕh enahddĕ nıde naxets'ĕ edahlı.

South Slavey

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K'áhshó got'jne xadā k'ĕ hederı ᓵedłht'ĕ yerınowĕ nıdĕ dúle.

North Slavey

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Jii gwandak izhii ginjik vat'atr'ijáhch'uu zhit yınohthan jı', diits'at ginohkhii.

Gwich'in

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Uvanittuaq ilitchurisukupku Inuvialuktun, ququaqluta.

Inuvialuktun

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Ĉ'bdł ɳɳ'bbΔċ ʌrlJΔłċ Δɳɳɳċ'ɳɳɳɳɳ, ɳɳ'ɳɳ'ɳɳ ɳɳ'ɳɳ'ɳɳ.

Inuktitut

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Hapkua titiqqat pijumagupkit Inuinnaqtun, uvaptinnut hivajarlutit.

Inuinnaqtun

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# Minister's Message

I am pleased to present the first-ever Government of the NWT (GNWT) Agriculture Strategy for the Northwest Territories (NWT). It sets the stage for actions and investments in a number of areas outlined in our government's mandate.

The development of our agriculture sector will advance the development and diversification of the NWT economy – a collective priority of our 18<sup>th</sup> Legislative Assembly.

This Strategy, however, will also serve to fulfill commitments we have made to lower the cost-of-living by improving food security; focus on improved nutrition to foster healthy families; and to enhance capacity-building programs for our youth.

Many partners and stakeholders have collaborated to bring this strategy to fruition.

I want to thank the federal government, the Northern Farm Training Institute and the NWT Association of Communities for supporting the extensive engagement process that was completed.

Moreover, to the many community members, producers, organizations, farmers and businesses who provided valuable perspectives and whose contributions have served to build this strategy, thank you for your dedication to seeing agriculture succeed in the NWT.

Residents of the NWT have told us that they are interested in advancing agriculture and food production.

The Government of the Northwest Territories (GNWT) is working to support this vision with informed actions, investments and legislative tools that will advance the increased production of fresh, healthy, safe and more affordable locally grown food choices.

We look forward to working and sharing with you in the growth and success of this important sector of our economy.

The Honourable Wally Schumann

Minister of Industry, Tourism and Investment



# Message du ministre

Je suis heureux de présenter la toute première stratégie agricole pour les Territoires du Nord-Ouest (TNO) élaborée par notre gouvernement. Cette stratégie ouvre la voie à l'adoption de mesures et à des investissements dans un certain nombre de domaines relevant de notre mandat.

L'expansion de notre secteur agricole contribuera au développement et à la diversification économiques des TNO, une priorité collective de notre 18<sup>e</sup> Assemblée législative.

Par ailleurs, la présente stratégie nous aidera à respecter des engagements que nous avons pris : réduire le coût de la vie en misant sur la sécurité alimentaire; améliorer l'accès à des aliments nutritifs pour favoriser la santé des familles; revoir les programmes de renforcement des capacités pour les jeunes.

Cette stratégie est le fruit des efforts concertés de nombreux partenaires et intervenants.

Je tiens à remercier le gouvernement fédéral, le Northern Farm Training Institute, et l'Association des collectivités des TNO pour leur appui au vaste processus de mobilisation qui a été enclenché.

Je salue également les nombreux membres de nos collectivités, producteurs, organismes, agriculteurs et entreprises qui nous ont fourni de précieuses perspectives et dont les contributions ont concouru à la création de la présente stratégie. Merci pour votre détermination à voir l'agriculture réussir aux TNO.

Les Ténois nous ont dit qu'ils souhaitaient faire avancer l'agriculture et la production alimentaire chez eux.

Le gouvernement des Territoires du Nord-Ouest s'active à concrétiser cette vision au moyen de mesures éclairées, d'investissements et d'outils législatifs qui stimuleront la production d'aliments frais, sains, salubres, plus abordables et cultivés à l'échelle locale.

Nous avons hâte de travailler et d'échanger avec vous pour assurer la croissance et le succès de cet important secteur de notre économie.

Wally Schumann,

ministre de l'Industrie, du Tourisme et de l'Investissement

# Executive Summary

Residents of the Northwest Territories (NWT) have long responded to the unique challenges of producing fresh, safe and healthy agricultural products in the North's unique environment.

There exists today a diverse variety of food growing initiatives across the NWT. They include local food production, farmers markets, community greenhouses and small commercial enterprises.

The need for a strategy to advance economic opportunities in this sector was formally identified in the 2013 NWT Economic Opportunities Strategy (EOS).

In the summer of 2015, the Government of the Northwest Territories (GNWT) initiated a process of community visits and engagements to inform the development of an agriculture strategy for the NWT. From input received from agricultural experts, producers, businesses, community organizations and residents, several key priorities emerged to become the basis of this document.

Additionally, the Department of Industry, Tourism and Investment (ITI) has reviewed industry best practices, agriculture strategies from other jurisdictions, previous and current agricultural activities and projects, and the history of agriculture in the NWT. ITI has engaged other GNWT departments with mandates involving areas of food production. Extensive discussions focused on key areas such as land use and the development of a regulatory framework.

With guidance taken from these engagements and in line with the stated priorities of the 18<sup>th</sup> Legislative Assembly, the overall goal of the NWT's first Agriculture Strategy is to:

- Build a relevant and viable agriculture industry
- Support the safe, sustainable development of food production systems
- Contribute to the sustainability of NWT communities
- Encourage and support the transfer of food production skills
- Increase availability of local food for northern residents
- Reduce the cost of food for northern residents

**The strategy and accompanying action plan are built on the following pillars:**



Under these pillars, 47 actions and activities are proposed. (see Appendix A: Action Plan).

The effective development of the NWT agriculture sector will require that all elements of the food production cycle are addressed, and various resources and specific foundational elements are put in place.

# Sommaire

Les Téoïis s'efforcent depuis longtemps de relever les défis particuliers que pose l'approvisionnement en produits agricoles frais, salubres et sains dans l'environnement nordique qui est le leur.

Tout un éventail d'initiatives a vu le jour, partout aux Territoires du Nord-Ouest (TNO), pour favoriser les cultures vivrières. Parmi ces initiatives figurent la production alimentaire locale, les marchés fermiers, les serres communautaires et les petits commerces.

Le besoin d'une stratégie pour mettre à profit les possibilités économiques du secteur a été officiellement énoncé dans la Stratégie de développement des possibilités économiques des TNO de 2013.

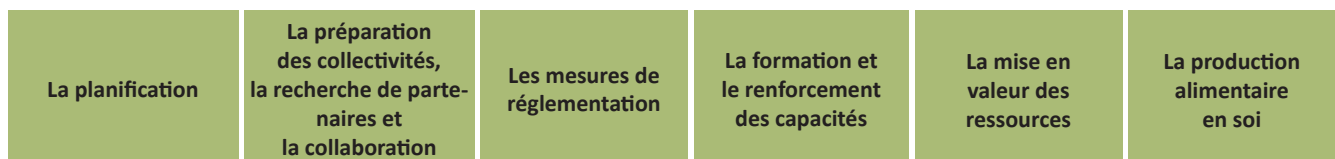
Au cours de l'été 2015, le gouvernement des Territoires du Nord-Ouest (GTNO) a lancé un processus de consultations sous la forme de visites dans les collectivités et de mobilisations afin d'alimenter la rédaction d'une stratégie agricole pour les TNO. Les avis alors recueillis auprès d'experts en agriculture, de producteurs, d'entreprises, d'organismes communautaires et de particuliers ont permis de dégager plusieurs priorités qui ont servi de fondement à ce document.

Le ministère de l'Industrie, du Tourisme et de l'Investissement (MITI) a examiné les pratiques exemplaires de l'industrie, les stratégies agricoles d'autres administrations ainsi que des activités et projets, antérieurs et en cours, en plus de revoir l'histoire de l'agriculture aux TNO. Il a fait participer au processus d'autres ministères ténoïis dont les mandats touchent la production alimentaire. Des discussions approfondies ont été tenues en parallèle, axées sur des enjeux clés, comme l'utilisation des terres et l'élaboration d'un cadre de réglementation.

À la lumière des conseils obtenus dans la foulée de ces consultations et conformément aux priorités cernées par la 18<sup>e</sup> Assemblée législative, la première stratégie agricole des TNO établit des objectifs généraux, soit :

- bâtir une industrie agricole adaptée et viable;
- soutenir la mise en place de systèmes de production alimentaire fiables et durables;
- contribuer à l'essor à long terme des collectivités ténoïises;
- encourager et appuyer le transfert de compétences dans le domaine de la production alimentaire;
- accroître l'accès des Téoïis à des produits alimentaires locaux;
- réduire le coût des aliments aux TNO.

**Cette stratégie et le plan d'action qui l'accompagne s'articulent autour des axes suivants :**



Quarante-sept mesures et activités sont proposées autour de ces axes. (Voir l'annexe A : Plan d'action). Pour assurer l'expansion efficace du secteur agricole des TNO, il faut tenir compte de tous les éléments du cycle de production alimentaire, veiller à la disponibilité des diverses ressources et établir les assises sur lesquelles reposera la stratégie.

# Background

Historically, producers in the NWT sold items ranging from dairy products to produce as far south as Fort Smith and as far north as Aklavik. These early agricultural initiatives continued throughout much of the 20<sup>th</sup> century. During this time, the NWT remained sparsely populated and the high cost of food and limited access to fresh produce and dairy products was an incentive for people to grow and harvest their own.

As roads were built and air travel became more popular, perishable food became easier to access. This created competition for market producers and contributed to a decline in local enterprise. Since its inception in 2005, ITI has focused its efforts on developing community gardens, greenhouses, egg production and increasing local capacity through training.

Farmers markets exist in many communities thanks to the creative and innovative efforts of local food producers. These groups and individuals have made producing food a reality in most NWT communities. Their efforts have resulted in a greater availability, diversity and quality of fresh produce for consumers and economic opportunities for local producers.

Agriculture was identified as one of the NWT's emerging economic sectors in 2013 when the GNWT's EOS identified five recommendations (listed on page 8) to increase economic opportunities for the agriculture sector in the NWT. Foremost among these actions was the creation of a definitive strategy and policy instruments to guide government investment, support business opportunities and anticipated economic growth to coincide with the growth of the agriculture sector.



# Development of the Agriculture Sector

Collectively, six foundational pillars are required to ensure the successful development of the agriculture sector for food producers and residents alike. These foundational pillars offer the best opportunities to expand and grow the NWT agriculture sector. With supporting recommendations for each, they form the basis of this Strategy.

## Pillars:

1. Planning
2. Community Leadership, Partners and Collaboration
3. Regulatory Measures
4. Training and capacity building
5. Resources
6. Food production

## Pillar 1 – Planning

### A) Aligning with Key Priorities of the GNWT and Federal Government

In its 2016 – 2019 mandate, the GNWT has committed to developing a strategy to expand the agriculture sector; and to increase local food production, increase producer and supplier opportunities and improve distribution networks for NWT food and food related products. With continued support from the federal government through the *Growing Forward 2 Bi-Lateral Agreement*, the GNWT is now in a position to formalize an Agriculture Strategy to address its commitments in these areas.

The Northwest Territories Agriculture Strategy considers and complements existing strategies and policies, including the GNWT's *Land Use and Sustainability Framework* and *Sustainable Development Policy*.

#### ***Recommended Action:***

*1.1 Support sustainable commercial food production planning with potential entrepreneurs and communities that express a strong interest in growing food for profit.*

## B) Vision

To increase the diversity, amount and value of foods and goods produced through the development of a safe, self-reliant, environmentally sound agriculture sector, for the betterment of all communities and residents in the Northwest Territories.

The illustration below captures the current state, and future vision, of food production in the Northwest Territories. It recognizes that a number of food producers are already involved in an array of private, commercial, community, or non-profit initiatives. Examples include egg production, commercial and non-commercial gardens and greenhouses, farmers markets, and number of community-based food gardens.

While recognizing the importance of food production for personal and community use, this Strategy focuses on developing and supporting the needs of a commercial sector engaged in food production, processing and secondary industry development.



## C) Strategy Development Process – Public Engagement

Led by the Department of Industry, Tourism and Investment (ITI) and in partnership with the Northern Farm Training Institute (NFTI) and the NWT Association of Communities (NWTAC), ITI facilitated a number of community engagements in the summer of 2015 to gather input for the development of this Strategy.

Input was received from approximately 200 individuals. Public engagements took place in Fort Simpson, Hay River, Fort Smith, Fort Resolution, Norman Wells, Fort Good Hope, Inuvik and Yellowknife. Additional site visits and interviews occurred in Enterprise and Tuktoyaktuk. Key themes and findings identified in these engagements are summarized in the October 2015 report *Towards a Northwest Territories Agriculture Strategy – What We Learned* (available online).

Key themes identified from the engagement process are summarized below:

What we heard...	Goals and objectives in response to community feedback
<b>Invest more</b>	
Support the safe, sustainable development of food production systems	Increase investment in viable, sustainable, commercial food production. Boost the local economy to create food producers, employment and access to local foods and markets. Support the commercial and economic benefits of primary and secondary industry.
<b>Teach more</b>	
Encourage and support the transfer of food production skills	Increase investment and supports for local training, skill and capacity building programming.
<b>Promote/sell more</b>	
Increase availability of local foods for northern residents	Develop marketing plans and campaigns to promote NWT produced foods and related products. Provide local food producers with opportunities for larger market access to buyers. Inform consumers about the value of supporting local food systems as well as the overall sector.
<b>Research and innovate</b>	
Provide northern solutions for food production in the NWT	Increase investment in research and innovation for northern agriculture and food production. Create initiatives that enhance the agri-food sector.
<b>Report and monitor</b>	
Provide NWT residents with evidence of progress on the strategy implementation	Develop key performance indicators for monitoring and reporting of progress.

## Pillar 2 – Community Leadership, Partners and Collaboration

### A) Community Leadership

Feedback was clear. The development of the agriculture sector needs to be driven by community leadership and NWT residents. Initiatives will be defined by the capacity, commitment and personal ownership of those involved – whether this involves producing food or a commitment to buy locally-produced food.

Every region or community will be encouraged to establish local coordinating committees to provide input, foster support and lead the economic development and growth of its agriculture sector. Community committees and partners will be best positioned to identify and support individuals or groups who have a strong commitment and interest in one or more aspects of food production.

***Recommended Action:***

*2.1 Assist with the development of coordinating committees among communities, government departments and agencies involved in the implementation for agriculture and economic growth initiatives.*

### B) Partners and Collaboration

A strong working relationship between community leaders, GNWT departments, producers, and agencies is essential to establishing the feasibility and strength of this Strategy.

Strong partnerships are particularly essential in the development of regulatory measures and requirements, cost-sharing initiatives, key resources and many other levels of supports for the agricultural sector. Maintaining collaborative and supportive interactions through interdepartmental working groups as well as engagements with key stakeholders is important to move the agriculture sector forward.

***Recommended Action:***

*2.2 Work collaboratively with GNWT departments and regulatory authorities to share expertise on specific aspects and to identify policy gaps for integrating agriculture into regulatory systems.*

## Pillar 3 – Regulatory Measures

In order to build an agriculture sector, regulations, legislation and policies are required at all levels of government, to enable it to grow and function. Under current legislation, the NWT's agriculture sector has very little room to grow and a supporting agriculture policy framework has yet to be developed. Most jurisdictions with established agriculture sectors have specific legislation and/or regulations to meet their community needs and protect public interest.

The federal government regulates numerous agricultural activities through federal legislation and Acts governing animal welfare, livestock transportation, meat processing and occupational health and food safety. Additionally, the NWT is required to comply with regulatory obligations established by Agriculture and Agri-Foods Canada.

Developing NWT-specific Acts, legislation, regulations, policies and guidance documents is an important step needed to accommodate the NWT agriculture sector.

Legislation must govern specific needs, interests, and concerns for commercial animal husbandry, food processing and production under which all commercial agriculture enterprise needs to comply. Acts that involve land use for agricultural development, environmental protection, public safety and food safety already in existence will be reviewed and updated or new ones created to support food production.

A review of current legislation has identified a number of gaps specific to agriculture. Additional regulations are needed to meet the needs of producers involved in areas ranging from animal handling to product marketing.

Animal health and welfare is also essential for the production of safe and high-quality meat, eggs and dairy products. A territorial animal health regulatory surveillance and management system will need to be considered to manage health issues for domestic animals, animal and animal by-product movement within and beyond the NWT, wildlife and the protection of residents.

The development of agricultural regulations and policies related to the environment, soil, water, wildlife and domestic animal protection, reportable and notifiable disease regulations, meat and animal-byproduct (abattoirs, dairy, retail sales of meat), and marketing to facilitate producer entrance into a supply chain, have been identified as priority areas for the NWT agriculture sector. Regulatory measures related to land use are also recognized to be critical.

GNWT departments with these mandates recognize the need to address various issues. This includes clarifying where current regulations need development or where updates are needed to address their application to agriculture.

Additionally, this Strategy recognizes the importance of public awareness and education updates on the status of regulatory work, interim guidance and best practices, and other documents that ensure transparency and understanding.

***Recommended Actions:***

*3.1 Develop a list of all current Acts, Regulations and Policies that relate to one or more aspects of agriculture and identify those that need to be created or updated to support the agriculture sector.*

*3.2 Establish a GNWT inter-departmental committee to review current Acts, Regulations, Policies and guidance documents that require some updating. Where gaps exist, work with the committee to create necessary reference documents or amendments, as identified by priority, such as meat and dairy production and harvesting.*

*3.3 Develop specific Agriculture Policies and regulatory frameworks with key departments. For example, Health and Social Services for food safety measures, Lands with respect to land tenure and land use planning and Environment and Natural Resources regarding wildlife and animal welfare.*

*3.4 For the commercial agriculture sector, support agricultural policies that direct the allocation of funding and investment for the growth of the sector.*

*3.5 Provide information, guidance documents and tools to key stakeholders, including community governments, to ensure full transparency and understanding of Agriculture Regulatory frameworks.*



## Pillar 4 – Training and Capacity Building

A successful agriculture sector is dependent on having a sufficient number of interested local producers and processors with specialized skills and expertise in food production. A common theme that emerged from all public engagement sessions was the need for information sharing to support agricultural production, particularly in specific areas, for example, technical expertise for commercial crop and greenhouse techniques. The development and transfer of such knowledge and skills in northern contexts is essential to advance NWT food production. Linkages will be created with partners to develop effective training programs that meet regional and local needs.

A common recommendation was to create capacity-building opportunities using a Train the Trainer approach. This involves the transfer of knowledge and basic skills from one trained individual to another individual or group. Opportunities exist to build on training successes already achieved, such as workshops and other training initiatives across the NWT.

Experiential learning and mentorship opportunities will be explored to improve skills and knowledge development. This can include knowledge networks in the NWT and across the circumpolar north. Educational resources that support awareness and interest in all aspects of food production through hands-on learning can be initiated at a young age and are important to foster an early understanding of the importance and value of locally-produced food.

The GNWT will focus support and research activities in order to develop resources that facilitate education and experiential learning and by seeking the support of organizations, such as Aurora College and the Aurora Research Institute, the Inuvik Greenhouse, the Northern Farm Training Institute and Ecology North.

### ***Recommended Actions:***

- 4.1 Support access to agricultural training and expertise in order to meet the needs of communities and regions.*
- 4.2 Support appropriate agricultural training, using a Train the Trainer approach, outreach or extension services that improve regional and local capacity.*
- 4.3 Investigate opportunities for experiential learning at all levels to further develop skills, knowledge and confidence in one or more areas of commercial food production.*
- 4.4 Develop commercial agriculture and food production education resources to include resources related to topics such as livestock production, processing, distribution and marketing.*
- 4.5 Develop and offer educational resources supporting the inclusion of agriculture into a variety of educational environments to raise awareness, skill and build capacity related to agricultural initiatives for communities, families, youth and children.*

Feedback from the engagement process included recommendations for a centralized, on-line repository for historical documents, research, learning resources and current information specific to agricultural production in the north. A central repository will also enhance the sharing of information to fill gaps, reduce duplication and create awareness of sector development and advancements.

In support of continued learning and training, information and networking resources will be created and shared. This will include information on training opportunities, conferences, circumpolar and pan-territorial networks and other topics identified by food producers.

**Recommended Actions:**

*4.6 In partnership with other organizations, create a central repository that supports knowledge dissemination, research, and best practices for northern conditions.*

*4.7 Create a networking resource, such as a website, to share information and promote greater awareness of agriculture initiatives.*

## Pillar 5 – Resources

To be successful, the agriculture sector has a set standard of needed resources to facilitate development. The following primary resources have been identified for the NWT, with supporting recommendations for each:

- A. Land
- B. Biodiversity
- C. Soil
- D. Water
- E. Power and Heat
- F. Funding

### **A. Land**

Agriculture development in the NWT must respect traditional Aboriginal values and community priorities. Land management in the NWT is linked inextricably to land claim agreements. Currently, there are four settled land claim agreements for the Sahtu, Gwich'in, Inuvialuit and Tłı̨chǫ. Respective Aboriginal governments play a lead role in the administration and management of their lands. In addition, a number of land use planning boards are instrumental in determining how land can and should be used in relation to municipal authorities. Where finalized land claim agreements are not yet in place, land management decisions are more complex. GNWT Departments will work together and with Aboriginal governments and communities to determine opportunities to develop agriculture initiatives, and the appropriate available lands for these initiatives.

Where current land administration leasing systems do not specifically address agricultural land use, the GNWT will establish and review land tenure policies and procedures to ensure practices for agricultural land use are addressed as part of broader land management frameworks. For example, this may include discussions on specific lease terms and conditions for different types of agricultural use within and outside community boundaries. Once areas of land are identified for agricultural or agri-foods operations, next steps would involve land tenure and required authorizations such as land use permits and water licenses. These should be done in advance of any agricultural operations.

A common thread raised during community engagements was the need for clarity and certainty surrounding the use of land. Specific issues differ between communities and types of food production needs. For example, the need for soil-based agricultural purposes for a 60 acre+ operation is quite different than a non-soil type of operation that requires considerably less land.

The GNWT Land Use and Sustainability Framework guides decision-making processes with respect to land use, including the development of land for agricultural use. Other considerations for development include land use guidelines, approved land use plans, community values, priorities, suitable locations, negotiations, interim-measure agreements, land withdrawals as well as environmental and wildlife considerations.

From a municipal perspective, agriculture plans, such as the one developed by the Town of Hay River, can help a community with current and future agricultural development considerations. This type of plan could provide a model for other communities interested in developing similar agriculture plans that involve urban agriculture, the designation of agricultural lands and the support of agricultural development.

Access to land for agriculture will be addressed by the GNWT through collaborative processes with all relevant groups and key stakeholders including the Department of Lands, municipalities, Aboriginal governments and land use planning boards.

Wherever possible, the GNWT will encourage the development of agricultural land use plans for commercial food production through collaborative processes to ensure conditions are in place to advance the development of agricultural activities. Templates for new or existing commercial operations can help to support new enterprises or support the expansion of existing ones.

Various types of land usage also occur outside of land claim agreements within or near communities. In these cases, municipalities have developed guidelines for land use planning. Agricultural land use can also be supported by zoning, financial inputs, low cost or longer-term lease options and loans to help initiate food production. The GNWT acknowledges that the current land tenure system may not allow access to certain loan or funding programs available, and is committed to working to address this issue.

***Recommended Actions:***

*5.1 Work with the Department of Lands to develop a land use and tenure approach that supports the agriculture sector. This will include a review of land administration legislation, regulations, policies and procedures.*

*5.2 Ensure those interested in agriculture are informed of the processes involved to secure land tenure and other regulatory requirements prior to operation.*

*5.3 Work with GNWT departments, and others, to develop an inventory of land that is viable and available for agricultural purposes, including land within and outside of municipal boundaries, and make this information available to the public for land use planning.*

*5.4 Consider agriculture in the broader land management context when developing and implementing government initiatives.*

*5.5 In collaboration with partners such as the NWT Association of Communities, develop template municipal bylaws that comply with agriculture-related regulations and Acts.*

## **B. Biodiversity**

The NWT is located in two major climatic zones: the arctic and subarctic. The arctic region has shorter, cooler summers (40 – 60 frost free days) while the sub-arctic is relatively mild, exhibiting warm, dry summers (70 – 90 frost free days). Both have long hours of daylight. The NWT is recognized as a leader in the successful co-management of wildlife resources within these climatic zones. Land use decisions

affecting wildlife and agricultural activities are shared between governments, users and renewable resource boards, set up under land claim agreements.

To date, northern agriculture and agri-foods production has had minimal impact on wildlife and wildlife habitats. However, biodiversity can be threatened with unsustainable agriculture practices such as the cultivation of uniform crops, the introduction of pests or disease such as anthrax or rabies, water pollution and/or soil degradation. Other possible threats to biodiversity include invasive species (plants, animals and insects), the potential for genetic pollution, direct damage to wildlife and wildlife habitats and risks inherent in the transfer of diseases from wildlife to domestic animals and from livestock to wildlife.

This Strategy recognizes that additional work is needed, in partnership with key stakeholders, to ensure that wildlife friendly agricultural practices are followed. These practices will be outlined in regulatory and guidance documents to minimize risks and protect wildlife, domestic species, the environment and NWT residents.

***Recommended Actions:***

*5.6 Work in partnership with key stakeholders to establish a broad regulatory framework that addresses disease transfer as well as a Pests, Pathogens and Invasive Species Council as it applies to agriculture and wildlife.*

*5.7 Work in partnership to assess, minimize and respond to health risks associated with the transfer of pathogens and parasites from domestic livestock, wild species and other native species.*

### **C. Soil**

There are approximately two million hectares of land identified for potential agriculture use in the NWT. In 2008, the Soil Survey Enhancement Project identified 826,326 hectares of Class 3 soil in the floodplains of the Hay River, Liard and Mackenzie Rivers, where nutrient-rich sediment has been deposited over hundreds of years.

Access for producers to soil science expertise and the capacity for soil testing for agricultural purposes are important resources needed for commercial food production. Soil quality guidelines and soil sampling analyses are needed to ensure soil meets minimum nutrient quality standards required to support the growth of healthy food. Soil testing is especially important in areas of the territory where there are known soil concerns, such as contamination from mine sites. Existing guidelines from the Canadian Council of Ministers of the Environment can be adapted to develop NWT guidelines.

***Recommended Actions:***

*5.8 Support the development of local quality soil resources accessible to growers, in partnership with cost-sharing initiatives, such as the creation of soil amendments.*

*5.9 Support education and development of locally produced, high-quality soil amendments as secondary food production products.*

*5.10 Encourage agriculture as a potential land use by providing expertise and recommendations on soil science and testing.*

## D. Water

Some of the best sites for agriculture are located near local water systems. Careful water management practices need to ensure the ecological integrity of northern waters, reduced impacts on the natural environment, that water is available for production and the continued use of water for municipalities.

Regional land use plans can offer guidance and direction on maintaining the quality and quantity of water within settlement regions. Agricultural practices must be consistent with GNWT regulations that protect the integrity of community water supplies, for example, the Yellowknife Watershed Regulations.

The NWT experiences low levels of annual precipitation. Irrigation may be a consideration that enhances production, however, care is needed to protect and access uncontaminated water supplies through the proper use of water systems.

Many partners are involved in the protection and use of water, including federal, territorial and municipal organizations and agencies. Various acts must be considered in the development of agriculture and water use, including the *Mackenzie Valley Regional Management Act*, the federal *Fisheries Act* and the *NWT Waters Act*. These Acts regulate the deposit of harmful substances including fertilizer, pesticide runoff, fuel, manure and suspended solids into waterways.

### ***Recommended actions:***

*5.11 Work in partnership with federal, territorial and municipal organizations and agencies to ensure that relevant legislation related to water access, use and licensing is effectively integrated and communicated as part of agricultural planning processes.*

## E. Power and Heat

Power and heat are important for food production, particularly for commercial production. Alternate energy sources such as solar, wind power, biomass, geothermal energy and other new technologies can help reduce food production costs.

Innovation and research opportunities for cost-efficient power and heat sources are needed to support a wide range of food production needs. Such cost-effective options were identified through the engagement process, particularly heating systems for greenhouses during the transition of seasons. In some regions, biomass combustion systems have proven successful. Waste heat collection presents an opportunity to recycle energy and reduce input costs. New construction projects could also consider, as part of their design, how commercial greenhouses or growing spaces could be added to avoid stand-alone, expensive construction costs.

Differentiated power rates may also need to be examined to help support agricultural developments. This could increase the feasibility of longer-season operations and reduce costs for commercial greenhouse or cold storage operations.



***Recommended Actions:***

*5.12 Work in partnership with other departments and organizations to provide guidance, support and incentives for alternate energy systems for growing food, as well as processing and cold storage facilities.*

*5.13 Seek out opportunities to facilitate access to alternate energy sources as part of existing or planned community infrastructure or new construction projects.*

*5.14 Review the possibility of differentiated power rates specifically for agricultural purposes.*

## **F. Funding**

In addition to providing a variety of local foods for residents, agricultural activities play an important role in creating economic diversity. Regardless of size, agricultural activities enhance local economies by providing a means of revenue and employment.

Investment is necessary to help producers turn their initiatives into viable commercial operations or to expand existing operations. Investments will be leveraged from various levels of government and the private sector to support, create and sustain business opportunities and economic growth.

Based on the interest fostered to date, it is anticipated that some not-for-profit activities may become commercial enterprises – if they can access eligible funding.

Funding resources currently available through ITI to support agricultural development include:

- 1. Growing Forward 2 – Bi-Lateral (federal/territorial cost share) agriculture and agri-foods programs;*
- 2. The Northern Food Development Program (fish and agriculture program funding); and*
- 3. Support for Entrepreneurs and Economic Development (SEED) a suite of programs and supports for general business development including the agriculture sector.*

Funding sources to support various aspects of non-commercial food production – such as community gardens, skill building, health and well-being, community and public infrastructure, and others – may be available through other GNWT departments.

Stakeholder feedback also suggested improvements to agricultural program funding, administration and providing access to credit for commercial food production enterprise. Residents suggested that investments in capital would help meet the need to further develop food production opportunities.

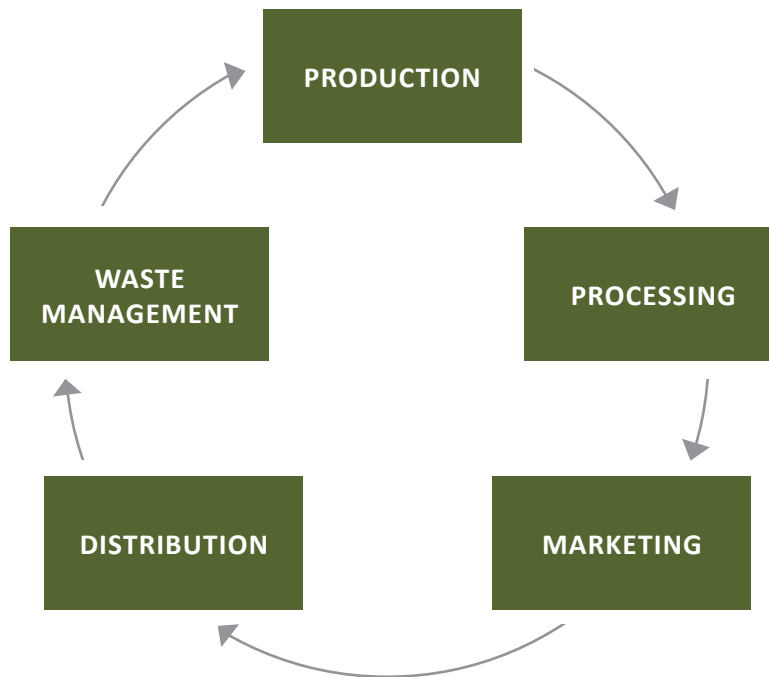
***Recommended Actions:***

*5.15 Review funding opportunities and access to credit for commercial food-production initiatives.*

*5.16 Review government-funding programs to ensure they are aligned with the needs of food producers.*

## Pillar 6 – Food Production

Each phase of the food production cycle has unique challenges and opportunities. Indicated below are the five major phases of food production and recommended actions that support each phase.



### A. Production

Successful operations in the agriculture and agri-foods sector are designed to generate incomes for producers. Across the country, commercial food production plans are usually developed for all phases of the food production cycle. Commercial opportunities in the NWT include the sale of meat products, harvested fish, eggs, dairy, cheeses, honey, mushrooms, syrups, teas, vegetables, fruit and many others.

Stakeholders indicated the importance of food production and harvesting as a focus for supporting local sustainability and job creation opportunities. They also stressed the importance of having local food available for purchase in retail stores and the availability of local foods in public institutions.

#### ***Recommended Action:***

*6.1 Facilitate food production plans and support agricultural business planning expertise for regions and communities interested in commercial food production.*

### B. Processing

Processing ranges from minimally altered foods (for example, packaged-greens, dried fish) to foods with added sweeteners, spices, oils, flavours, colours and preservatives. Commercial food processing is relatively small in the NWT and generally focused on sales at local markets, small stores and restaurants.

Stakeholder feedback indicated that a variety of processing facilities should be created or expanded for those interested in developing value-added products that can be sold to other communities or wider markets. Opportunities for value-added production (the process of changing a product from its raw state to a more valuable state (e.g. turning cabbage into coleslaw, turning milk into cheese, etc.) will be explored for NWT-grown and processed food products, ensuring that relevant regulatory mechanisms for micro-dairies, mobile abattoirs, meat processing and retail sales are in place.

Regulatory frameworks need to include mechanisms to ensure appropriate food safety measures to guarantee public safety. The development of legislation and regulations, similar to those developed in other jurisdictions, will improve consumer confidence and that local food production, processing and marketing results in a safe food supply.

Other activities to encourage food processing will include training opportunities facilitated by experienced, local experts and others as needed. Industry-standard commercial facilities that may currently exist, or new ones that are soundly constructed and regularly inspected, could play a key role in the processing and preservation of a wider variety of foods, and help move processed foods beyond the local level, thus creating additional income opportunities.

***Recommended Actions:***

*6.2 Review existing regulatory frameworks and current facilities available for local and value-added food production.*

*6.3 Identify opportunities for potential expansion of facilities for food production.*

## **C. Marketing**

Food producers, harvesters and processors want more opportunities to sell their products. Recommended actions from the engagement process included the need for larger markets and more point-of-sale and online business opportunities. This Strategy will consider opportunities to market and sell locally produced foods and related products through farmers markets, farm gate operations and direct sales.

Showcasing northern agricultural successes, profiling farmers, food growers and producers – and promoting NWT foods that are fresh, healthy, and environmentally friendly – will encourage and increase demand for various unique or niche food products.

Effective branding will create a unique identity for NWT products. A campaign that promotes local foods under a banner such as *locally produced in the NWT* will work to showcase, create demand for, and promote NWT foods and products to target markets. *BC fruit, Alberta beef, and PEI potatoes* are examples of quality trademarks established by the delivery of consistent, high value products.

Consumer awareness has been shown to enhance the demand, purchase and consumption of healthy, local foods. Food choices are influenced by factors such as cost, taste, health, culture, traditions and the values consumers are now placing on eating local foods and supporting local food producers. Consumers are also showing increased interest in the origins of their food and in agri-tourism. Overall, the public has become increasingly aware of the potential environmental and social implications of large commercial agriculture operations. Clearly, there is a desire to return to healthy, locally-produced food and reduce the dependence on imported food from outside of the NWT.

**Recommended Actions:**

*6.4 Ensure appropriate food safety measures are established for all commercial food production and processing.*

*6.5 Support the development of direct-to-market channels for retail markets, institutions and the private sector.*

*6.6 Develop programs that give preference to the use of locally produced and processed food and secondary products.*

*6.7 Support and encourage value-added opportunities for food products locally harvested and produced.*

*6.8 Develop an agricultural awareness action plan to promote the agriculture and agri-foods sector. This action plan will include communications and marketing plans for NWT foods and the benefits of buying locally.*

**D. Distribution**

Food needs to be distributed from producers and processors to retailers and consumers. Stakeholder feedback indicates that residents want processes created for the sale and distribution of local products. Distribution plans for products that can be sold within and beyond the local level will be established especially when local supply outpaces local demand.

Many NWT products are unique due to their pristine and naturally organic origins. With distribution processes in place, a number of existing products can be commercially viable to niche markets including tourists.

Interest also exists for the procurement of local foods by restaurants, grocery stores and mining camps throughout the NWT. While the bulk of food for northern communities is currently imported from southern suppliers, facilitating the supply of locally-produced and processed foods to stores and public institutions will serve to increase the economic viability of local production.

Transportation processes and systems need to be reliable and efficient for distributing food. Recognizing that even local foods may need to be transported long distances, a review is needed of subsidies for inter-settlement trade, food transportation between communities and priority perishables imported from the south.

In the case of imported foods, consideration will be given to opportunities to divert funding from subsidies into local food production reducing competition between imported and locally grown foods.

Centralized food distribution systems have been successful in other jurisdictions, since they offer access to wholesale, retail and institutional markets and make it possible for commercial producers to enter larger, broader markets. Various organizations could maintain centralized locations that connect farmers, growers, producers and suppliers with commercial or surplus food products.

***Recommended Actions:***

*6.9 Explore new opportunities for larger markets for primary and secondary (value-added) products grown, produced or processed in the NWT.*

*6.10 Review and make suggestions to existing federal programs related to the subsidization and transport of imported and/or local foods such as Nutrition North Canada.*

**E. Waste Management**

A sustainable food system includes the reduction of food waste and using compostable organics to supplement soil to grow produce. This practice is common in most jurisdictions. Collecting organic waste and turning it into compost is critical in the north, where soil may be nutrient-deficient and costly to import.

Disposal of waste in landfills results in substantial financial and environmental costs. Organic waste breaks down in landfills and is a source of methane. Ensuring that the agriculture sector has the capacity to manage, reduce and divert waste through sound practices will be supported through training and coordination, in collaboration with the GNWT Department of Environment and Natural Resources. This will help ensure compliance with regulatory requirements and minimize the negative impacts on the natural environment, such as runoff from compost piles.

Agricultural activities involving domestic animals require collection, storage, composting and disposal of animal waste using best practices and requiring regulatory compliance. The GNWT will work with partners to ensure waste management procedures do not attract wildlife, particularly predators that could pose risks to livestock and public safety.

Growers, producers and processors will be encouraged to use sustainable practices to reuse resources, recycle and use environmentally friendly packaging and other practices. Spin-off opportunities in the NWT already include the commercial production and sales of compost, such as Rooster Booster from Hay River and from the City of Yellowknife landfill site.

Preventing and reducing agricultural waste through complete product use is the preferred waste management option. Using products with minimal waste, finding markets for all by-products, recyclable packaging, and using animal feed by-products will be promoted. Northern soil, known to be low in nitrogen, can benefit from organic soil amendments to increase productivity, lower costs and increase efficiency. Other organic waste products could be developed for sale, such as fish fertilizers.

***Recommended Actions:***

*6.11 Promote the management, reduction and diversion of organic waste products for agricultural use, ensuring that waste management procedures do not negatively affect wildlife or public safety.*

*6.12 Encourage sustainable, environmentally friendly processing practices, such as recyclable or compostable packaging.*

*6.13 Investigate opportunities for the production of organic waste for sale, such as fish fertilizer.*



# Conclusion

The GNWT will work collaboratively with all partners to implement this strategy designed to support the growth of the NWT agriculture sector.

Specific timelines and the formal identification of resources are needed to implement this Strategy and will continue to require the input and involvement of many partners including Agriculture and Agri-Foods Canada. Ongoing engagement and collaboration will also be established with Aboriginal governments and organizations.

Recommendations outlined in this Strategy are planned for the short, medium and long-term. In the immediate and short-terms, priority will be given to areas of regulatory development and land use. Over the short and medium terms, training and educational resources will be addressed to enable and allow producers to learn from a variety of individuals and experiences.

NWT residents and food producers are looking forward to the growth of the agriculture industry across the territory. To ensure public transparency and accountability, the GNWT will keep residents and stakeholders informed of the progress, partnerships and contributions that support the implementation of this Strategy. Monitoring, evaluation and reporting measures will assess how effectively recommendations are met.

## Monitoring, Evaluation and Reporting

Effective monitoring and evaluation of the recommendations identified in this Strategy will ensure that progress is consistent within the timeframe set out in the Action Plan (see Appendix A). By consistently monitoring the state of the agriculture sector, potential opportunities will be identified and successes acknowledged.

### ***Recommended Actions:***

*7.1 Create annual progress reports that provide progress for producers, funders, organizations and the public.*

*7.2 Establish a baseline to measure and monitor activities and goals, such as numbers of farmers, food producers, variety of foods produced, commercial sales volumes, exports and other indicators.*

# Appendix A | Action Plan

The Strategy is built on the premise that many segments of the NWT, such as governments, communities, food producers, agencies and society all have a role to play in advancing and realizing a commercially viable agriculture sector. Through the Department of Industry, Tourism and Investment (ITI), the GNWT will advance the following recommended actions by working collaboratively with its partners.

## ACTION PLAN ELEMENTS EXPLAINED

<b>Recommended Action</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline and Partners</b>
Recommended action to achieve under each of the six pillars.	Short explanation of the reason for the recommendation and/or the manner in which it might be implemented.	Subsectors of the main pillars, where applicable.	<i>ITI – In cooperation with: (Departments &amp; Agencies)</i> Immediate = Within a year Short-term = 2 – 3 years Medium-term = 3 – 5 years Long-term = 5 – 10 years

# Pillar 1: Planning

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
1.1	Support sustainable commercial food production planning with potential entrepreneurs and communities that express a strong interest in growing food for profit.	The focus for the future of agriculture in the NWT is to grow the commercial sector, as identified by community consultations. EOS, ITI and GNWT mandates clearly identify economic investment for the industry.	Planning	Short-term and Medium-term  Industry, Tourism and Investment (ITI)  Agriculture and Agri-Foods Canada

# Pillar 2: Community Leadership, Partners and Collaboration

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
2.1	Assist with the development of coordinating committees among communities, government departments and agencies involved in the implementation for agricultural and economic growth initiatives.	Consultation feedback indicates that the development of the agriculture sector needs to be driven by community leadership and residents, in partnership with other agencies that can support communities.	Community Leadership	Short-term and Medium-term  NWTAC  Various GNWT Departments  Food Producers  Key Stakeholders
2.2	Work collaboratively with GNWT departments and regulatory authorities to share expertise on specific aspects and to identify policy gaps for integrating agriculture into regulatory systems.	Providing co-ordinated proactive support will move the sector forward, including collaboration on the development of regulations that support the agriculture sector. Other organizations would be consulted on legislative proposals and other regulatory matters.	Partnership and Collaboration	Immediate and Short-term  Various GNWT Departments

# Pillar 3: Regulatory Measures

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
3.1	Develop a list of all current Acts, Regulations and Policies that relate to one or more aspects of agriculture and identify those that need to be created or updated to support the agriculture sector.	All legislation, regulations and policies (including other jurisdictions) related to the agriculture sector need to be compiled for review. The identification of gaps for new regulations needs to be addressed so that the agriculture sector can move forward.	Regulatory Measures	Immediate and Short-term  Various GNWT Departments
3.2	Establish a GNWT inter-departmental committee to review current Acts, regulations, policies and guidance documents that require updating. Where gaps exist, work with the committee to create the necessary reference documents or amendments, as identified by priority, such as meat and dairy production and harvesting.	Providing co-ordinated proactive guidance and regulations to the agriculture and agri-foods sector aims to safeguard residents against any unintended consequences and allow producers to sell their products.	Regulatory Measures	Immediate and Short-term  Various GNWT Departments
3.3	Develop specific Agriculture Policies and regulatory frameworks with key departments. For example, Health and Social Services for food safety measures, Lands with respect to land tenure and land use planning and Environment and Natural Resources regarding wildlife and animal welfare.	Providing co-ordinated proactive guidance and regulations to the agriculture and agri-foods sector aims to safeguard residents against any unintended consequences.	Regulatory Measures	Immediate and Short-term  Various GNWT Departments

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
3.4	For the commercial agriculture sector, support agricultural policies that direct the allocation of funding and investment for the growth of the sector.	Agricultural policies require input from GNWT departments responsible for land use and the identification of specific requirements, such as securities and thresholds.	Regulatory Measures	Immediate and Short-term  Various GNWT Departments  Federal Government
3.5	Provide information, guidance documents and tools to key stakeholders, including community governments, to ensure full transparency and understanding of Agriculture Regulatory frameworks.	Feedback from communities and producers indicated a lack of clarity regarding land use and other issues involving regulations. Providing information on a regular basis will improve communications.	Regulatory Measures	Immediate and Short-term  Various GNWT Departments  Aboriginal Governments  NWTAC

## Pillar 4: Training and Capacity Building

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
4.1	Support access to agricultural training and expertise in order to meet the needs of communities and regions.	Develop education resources and other training material that meets the needs of those interested in commercial enterprise.	Training and capacity building	Immediate and Short-term  Various GNWT Departments  Food Producers

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
4.2	Support appropriate agricultural training, using a Train the Trainer approach, outreach or extension services that improve regional and local capacity.	Community consultations indicated that residents/food producers would benefit from having local expertise in agriculture and the means to teach others necessary skills readily available and as close to their communities as possible.	Training and capacity building	Immediate and Short-term  Various GNWT Departments  Food Producers
4.3	Investigate opportunities for experiential learning at all levels to further develop skills, knowledge and confidence in one or more areas of commercial food production.	Many food producers in the north identified that they are under-equipped in terms of technical expertise in a number of areas related to the agricultural industry, such as field and greenhouse production.	Training and capacity building	Immediate and Short-term  Various GNWT Departments  Specialists in areas of agriculture production (access external expertise to support food producers in the short term, as needed)  Food Producers
4.4	Develop commercial agriculture and food production education resources to include resources related to topics such as livestock production, processing, distribution and marketing.	There is a lack of educational resources to increase knowledge and support the growth of the agricultural sector in the NWT, particularly in emerging areas.	Training and capacity building	Immediate and Short-term  Various GNWT Departments  Specialists in areas of agriculture production and design of educational resources  Key Stakeholders



	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
4.5	Develop and offer educational resources supporting the inclusion of agriculture into a variety of educational environments to raise awareness, skill and build capacity related to agricultural initiatives for communities, families, youth and children.	Educational materials can build awareness of agriculture as well as introduce agriculture as a career option. Basic education and the introduction of basic food growing techniques can increase awareness and interest in agriculture.	Training and capacity building	Medium-term Various GNWT Departments Key Stakeholders Food Producers
4.6	In partnership with other organizations, create a central repository that supports knowledge dissemination, research, and best practices for northern conditions.	Feedback from residents indicated that anecdotal evidence about successful historical practices, such as those use by experimental farms, is not easily accessible. Therefore, the central repository will have this type of information available to all NWT residents.	Training and capacity building	Medium-term Various GNWT Departments Key Stakeholders Food Producers
4.7	Create a networking resource, such as a website, to share information and promote greater awareness of agriculture initiatives.	Information for producers and residents about agriculture will benefit the sector. Relevant resources will be collected into an easily accessible website (in addition, potentially, to an electronic newsletter format, for distribution throughout the NWT), to support the agriculture sector.	Training and capacity building	Medium-term Various GNWT Departments Key Stakeholders Food Producers

## Pillar 5: Resources

### LAND

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
5.1	Work with the Department of Lands to develop a land use and tenure approach that supports the agricultural sector. This will include a review of land administration legislation, regulations, policies and procedures.	The Department of Lands can provide information on the requirements needed to secure land tenure to those interested in land for agricultural purposes.	Land	Immediate and Short-term  Lands and Various GNWT Departments  Aboriginal Governments
5.2	Ensure those interested in agriculture are informed of the processes involved to secure land tenure and other regulatory requirements prior to operation.	Due to the high level of interest in obtaining land for agricultural purposes, land availability needs to be identified in conjunction with meeting existing and new regulatory requirements.	Land	Immediate and Short-term and On-going  Lands and Various GNWT Departments  Aboriginal Governments  NWTAC
5.3	Work with GNWT departments, and others, to develop an inventory of land that is viable and available for agricultural purposes, including land within and outside of municipal boundaries, and make this information available to the public for land use planning.	Due to the high level of interest in obtaining land for agricultural purposes and lack of clarity regarding availability, mapping tools can assist in identification of lands that are viable and available for agricultural needs.	Land	Immediate and Short-term  Lands and Various GNWT Departments  NWTAC  Aboriginal Governments

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
5.4	Consider agriculture in the broader land management context when developing and implementing government initiatives.	Permanent resolutions of land issues are complex but need to be resolved in order to move the sector forward. Agricultural use of land will be considered in the context of all land needs, including municipal requirements, recreation, business development and land claims, in order to make land available for agriculture use.	Land	Immediate and Short-term  Various GNWT Departments  Aboriginal Governments  NWTAC
5.5	In collaboration with partners such as the NWT Association of Communities, develop template municipal bylaws that comply with agriculture-related regulations and Acts.	Providing municipal template by-laws related to agriculture can help support communities to comply with agriculture regulations and Acts.	Land	Medium-term  Various GNWT Departments  NWTAC

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## BIODIVERSITY

5.6	Work in partnership with key stakeholders to establish a broad regulatory framework that addresses disease transfer as well as a Pests, Pathogens and Invasive Species Council as it applies to agriculture and wildlife.	An NWT Pests, Pathogens and Invasive Species Council can assist in coordinating actions and strategies on the early detection, protection and management of pest in relation to the agriculture sector.	Biodiversity	Medium-term and Long-term  Various GNWT Departments  Federal Government
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	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
5.7	Work in partnership to assess, minimize and respond to health risks associated with the transfer of pathogens and parasites from domestic livestock, wild species and other native species.	The NWT Pests, Pathogens and Invasive Species Council can support, and inform, the agriculture sector by helping coordinate strategies that protect domestic livestock, wild species and other native species.	Biodiversity	Medium-term  Various GNWT Departments  NWT Pests, Pathogens, and Invasive Species Council

## SOIL

5.8	Support the development of local quality soil resources accessible to growers, in partnership with cost-sharing initiatives, such as the creation of soil amendments.	Local, high-quality (non-contaminated) soil resources and amendments, need to be developed and made accessible to food growers.	Soil	Medium-term  Various GNWT Departments  Commercial Soil Enterprises
5.9	Support education and development of locally produced, high-quality soil amendments as secondary food production products.	Soil survey enhancement projects have provided information on general areas where good quality soils may be found, however, skills are still needed to identify specific local soil resources and methods for accessing them.	Soil	Medium-term  Various GNWT Departments  Commercial Soil Enterprises  Food producers
5.10	Encourage agriculture as a potential land use by providing expertise and recommendations on soil science and testing.	Those interested in land for agriculture use can benefit from the sharing of existing reports and guidance specific to soil.	Soil	Medium-term  Various GNWT Departments  Key Stakeholders

## WATER

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
5.11	Work in partnership with federal, territorial and municipal organizations and agencies to ensure that relevant legislation related to water access, use and licensing is effectively integrated and communicated as part of agricultural planning processes.	Ensure that water resources, and the protection of water, is included in all agriculture production plans. Responsible use of water is a key element of agricultural food production.	Water	Medium-term  Various GNWT Departments  Federal government  Applicable Water Review Boards and Agencies

## POWER AND HEAT

5.12	Work in partnership with other departments and organizations to provide guidance, support and incentives for alternate energy systems for growing food, as well as processing and cold storage facilities.	The cost of electrical or gas heat in many communities is prohibitive. Biomass combustion (wood or pellets), solar or geothermal energy could be investigated as potential alternatives, especially in the spring and fall.	Power and Heat	Short-term and Medium-term  Various GNWT Departments  Key Stakeholders  Food Producers
5.13	Seek out opportunities to facilitate access to alternate energy sources as part of existing or planned community infrastructure or new construction projects.	Consideration should be given to the needs of the agriculture sector in all new developments, including infrastructure that can support reduced costs, or using alternative sources, for power and heat.	Power and Heat	Short-term and Medium-term  Various GNWT Departments.  Key Stakeholders
5.14	Review the possibility of differentiated power rates specifically for agricultural purposes.	Electricity is a significant cost, particularly for many types of agricultural operations. Affordable utilities that provide power would assist the viability of the sector.	Power and Heat	Short-term and Medium-term  Various GNWT Departments

## FUNDING

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
5.15	Review funding opportunities and access to credit for commercial food-production initiatives.	NWT food producers may not have ready access to commercial-scale credit through local banks. Access to capital may also be required as enterprises grow in size, recognizing funding contingencies, including compliance with land tenure regulations and thresholds.	Funding	Medium-term and Long-term  ITI  Agriculture and Agri-Foods Canada  BDIC
5.16	Review government funding programs to ensure they are aligned with the needs of food producers.	Community feedback included the need for greater transparency as well as a review of how funding is allocated to ensure equality.	Funding	Short-term and Medium-term  Various GNWT Departments  Federal Government

## Pillar 6: Food Production

### PRODUCTION

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
6.1	Facilitate food production plans and support agricultural business planning expertise for regions and communities interested in commercial food production.	Commercial enterprise will be moved forward and facilitated by support to regions and communities through appropriate food safety regulations, programs and services.	Food production	Short-term and Medium-term  ITI



## PROCESSING

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
6.2	Review existing regulatory frameworks and current facilities available for local and value-added food production.	Key stakeholders have identified the need for an inventory that will gather information on the current status of the agriculture sector, including current facilities for potential food processing opportunities.	Processing	Medium-term Various GNWT Departments NWTAC Food Producers Key Stakeholders
6.3	Identify opportunities for potential expansion of facilities for food production.	Based on the inventory of the current status of facilities for potential food processing, additional opportunities could be examined for the potential for expansion.	Processing	Medium-term Various GNWT Departments Canadian Food Inspection Agency (CFIA) Food Producers Private Industry

## MARKETING

6.4	Ensure appropriate food safety measures are established for all commercial food production and processing.	Effective regulatory systems to enable agricultural production require a review and an assessment of gaps in these systems in order to move the sector forward.	Marketing	Immediate Various GNWT Departments CFIA Food Producers
6.5	Support the development of direct-to-market channels for retail markets, institutions and the private sector.	Community consultations identified the need for marketing channels for the sale of the products produced in the NWT. This process will be facilitated by ensuring all applicable food safety measures are in place to support this need.	Marketing	Short-term and Medium-term Various GNWT Departments Food Producers

	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
6.6	Develop programs that give preference to the use of locally produced and processed food and secondary products.	Government institutions use significant quantities of food. Incorporating local foods can achieve many positive outcomes, industry growth and economic benefit.	Marketing	Medium-term Various GNWT Departments Food Producers
6.7	Support and encourage value-added opportunities for food products locally harvested and produced.	Policies and programs that support the marketing of foods grown and processed in the NWT are required as the agriculture sector grows and processes more products for sale.	Marketing	Medium-term Various GNWT Departments Food Producers
6.8	Develop an agricultural awareness action plan to promote the agriculture and agri-foods sector. This action plan will include communications and marketing plans for NWT foods and the benefits of buying locally.	An agricultural awareness action plan (communications, awareness, promotion materials, etc.) will promote local foods, increase demand and enhance local economies.	Marketing	Medium-term ITI Food Producers Key Stakeholders

## **DISTRIBUTION**

6.9	Explore new opportunities for larger markets for primary and secondary (value-added) products grown, produced or processed in the NWT.	Food distribution channels within and beyond communities need to be established in order to sell locally produced products when more supply is available than demand.	Distribution	Medium-term Various GNWT Departments Food Producers Federal Government
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	<b>Recommendation</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
6.10	Review and consider changes to existing programs related to the subsidization and transport of imported and/or local foods, including Nutrition North Canada.	Federal and territorial programs and policies that include the subsidization of foods imported from the south can inadvertently create disincentives for local production through competitive inequity.	Distribution	Medium-term Various GNWT Departments Federal Government Food Producers

## WASTE MANAGEMENT

6.11	Promote the management, reduction and diversion of organic waste products for agricultural use, ensuring that waste management procedures do not negatively affect wildlife or public safety.	Agriculture in the NWT can be a sustainable sector in the NWT by ensuring proper processes for waste management. Using organic waste as part of food production is cost-effective.	Waste Management	Medium-term ENR and Various GNWT Departments Food producers
6.12	Encourage sustainable, environmentally friendly processing practices, such as recyclable or compostable packaging.	Local food production has a number of benefits to the environment. The agriculture sector can also develop environmentally friendly practices to maintain the northern environment.	Waste Management	Medium-term Various GNWT Departments Food producers
6.13	Investigate opportunities for the production of organic waste for sale, such as fish fertilizer.	Innovative solutions for turning waste products into fertilizer are being explored. These initiatives could become viable commercial enterprises.	Waste Management	Medium-term Various GNWT Departments Other Jurisdictions NWTAC

# Conclusion

## MONITORING, EVALUATION AND REPORTING

	<b>Potential Activities</b>	<b>Rationale</b>	<b>Subsectors</b>	<b>Implementation Timeline + Partners</b>
7.1	Create annual progress reports that provide progress for producers, funders, organizations and the public.	Annual updates are needed to demonstrate progress on the implementation of the Strategy to key stakeholders.	Monitoring, Evaluation and Reporting	Medium-term ITI and Various GNWT Departments Food Producers Federal Government
7.2	Establish a baseline to measure and monitor activities and goals, such as number of farmers, food producers, variety of foods produced, commercial sales volumes, exports and other indicators.	Monitoring, evaluation and reporting indicators will measure whether or not the strategy meets the needs of food producers and residents. Evaluation measures will begin with the collection of baseline data and review of common key performance indicators used in the sector and adapted for the NWT.	Monitoring, Evaluation and Reporting	Medium-term ITI and Various GNWT Departments Food Producers Key Stakeholders

# Appendix B | Glossary

**Abattoir:** also known as a slaughterhouse, where animals are slaughtered for human consumption.

**Agricultural Extension Services:** The application of scientific research and new knowledge to agricultural practices through farmer education. The field of 'extension' encompasses a wide range of communication and learning activities organized primarily for food producers by educators from different disciplines, including agriculture, agricultural marketing and business studies.

**Agriculture and Agri-Foods Sector:** This term refers to the output of the agriculture and agri-foods sectors combined. Overall, the agriculture and agri-foods system includes farm input and services suppliers, primary agriculture, food and beverage processing, food retail/wholesale and food service industries. *Agriculture* is a term used to describe crop and animal production whereas *agri-food* is defined as all food and beverage manufacturing products.

- Agriculture: the science art or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products.
- Agri-food: describes activities related to producing food through agricultural means. This differs from other methods of food production (e.g. fishing, hunting, and gathering).

**Biodiversity:** The variety of plant and animal species in an environment.

**Biosecurity:** Farm biosecurity is a set of measures designed to protect a property from the entry and spread of pests and diseases. Farm biosecurity is usually the owner's responsibility, and of every person visiting or working on the property.

**Biomass:** Organic matter (wood, plant debris, manure, etc.) used as fuel for the generation of electricity.

**Commercial Agriculture:** Agriculture for profit.

**Crop:** A plant or animal or plant or animal product that can be grown and harvested extensively for profit or subsistence; the total yearly production from a specified area

[www.merriam-webster.com/dictionary/crop](http://www.merriam-webster.com/dictionary/crop)

**Educational Resources:** Documents and media related to agriculture - farm management, greenhouse management, composting, manure handling, marketing etc. – to support and foster knowledge on locally produced food.

**Environmental Farm Plan:** Environmental Farm Plans (EFP) are an assessment tool to help producers identify their environmental risks and develop plans to mitigate identified risks.

**Food Distribution:** A method of distributing or transporting food or drink from one place to another.

**Food Production Plan:** A food production plan is essentially a business plan for one or more products – analysis, strategy development and market analysis, financial aspects, control and evaluation.

**Food Security:** The state of having reliable access to a sufficient quantity of affordable nutritious foods (source: Food and Agriculture Organization).

**Genetic Pollution:** The spread of altered genes from genetically modified organisms to other, non-engineered organisms, especially by cross-pollination.

**Geothermal Energy:** The difference in heat between the core of planet Earth and its surface drives a continuous conduction of thermal energy upwards (towards the surface).

**Growing Forward:** The Canada-NWT agreement is a funding program meant to position the agriculture industry to be profitable, sustainable, competitive, innovative and commercial by 2020. Programs include Business Risk Management, Business Advisory Services, Food Safety, Environmental Farm Planning, Training, Marketing, Education, Infrastructure and Innovation.

**Invasive Species:** A plant, fungus, or animal species that is not native to the location in question. These species have a tendency to spread, and strongly compete with native species for resources (land, water, nutrients etc.).

**Large-Scale Farms:** The modern trend to enlarge farms to reach optimal size as a business enterprise rather than as a unit size suited to single family management.

**Livestock:** Animals, such as cattle or swine, kept for home use, or raised for profit.

**Local Food System:** The food system can be broken down into 3 basic components: biology, economic and social/cultural.

**Mackenzie Valley Resource Management Act:** An Act to provide for an integrated system of land and water management in the Mackenzie Valley, to establish certain boards for that purpose and to make consequential amendments to other Acts.

**NWT Association of Communities:** A not-for-profit society formed in 1966 to represent the interest of municipal governments in the Northwest Territories. Communities work together to address common issues, deliver programs and exchange information.

**Non-commercial:** Backyard gardening, community gardens and greenhouses, residential greenhouses, not-for-profit activities.

**Northern Farm Training Institute (NFTI):** An experiential farm training school based in Hay River, Northwest Territories with the aim of empowering northerners to grow their own food.

**Northern Food Development Program:** The overall goal of the program is to increase local food production and availability of northern food products for northern consumers.

**Processed Food:** Food processing is any deliberate change in a food that occurs before it is available to eat. This can include freezing or drying to preserve nutrients and freshness, or as complex as formulating a frozen meal.

**Safe Food Supply/Food Safety:** Describes the handling, preparation, and storage of food with intent to prevent foodborne illness. Defines actions to follow in order to avoid potentially severe public health hazards.



**Soil Amendment:** Also called soil conditioner, helps improve plant growth and health. The type of amendment added depends on the current soil composition, climate, and type of plant.

**Supply Chain:** Describes the system involved in moving a product from supplier to customer. Supply chain activities involve the transformation of raw materials (e.g. cabbage, muskox meat) into a finished product (e.g. coleslaw, muskox sausage) to be sold to a customer.

**Sustainable Agriculture:** The production of food, fibre, or other plant or animal products using farming techniques that protect the environment, public health, communities, and animal welfare.

**Territorial Farmers Association:** This association was initiated in 1973, to support agricultural activities; the association has not been active since 2013.

**Waste Recovery:** Refers to the selective diversion of disposed organics for either livestock feed or composting in order to extract maximum benefits from nutrients, delay the consumption of imported and synthetic versions of these products in order to extend the life of fills.

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