



Northwest Territories Agriculture

State of the Industry

2000

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Prepared For:
Territorial Farmers Association
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Territorial Farmers Association



**Agriculture and
Agri-Food Canada**

Canada



Canadian
Farm Business
Management Council

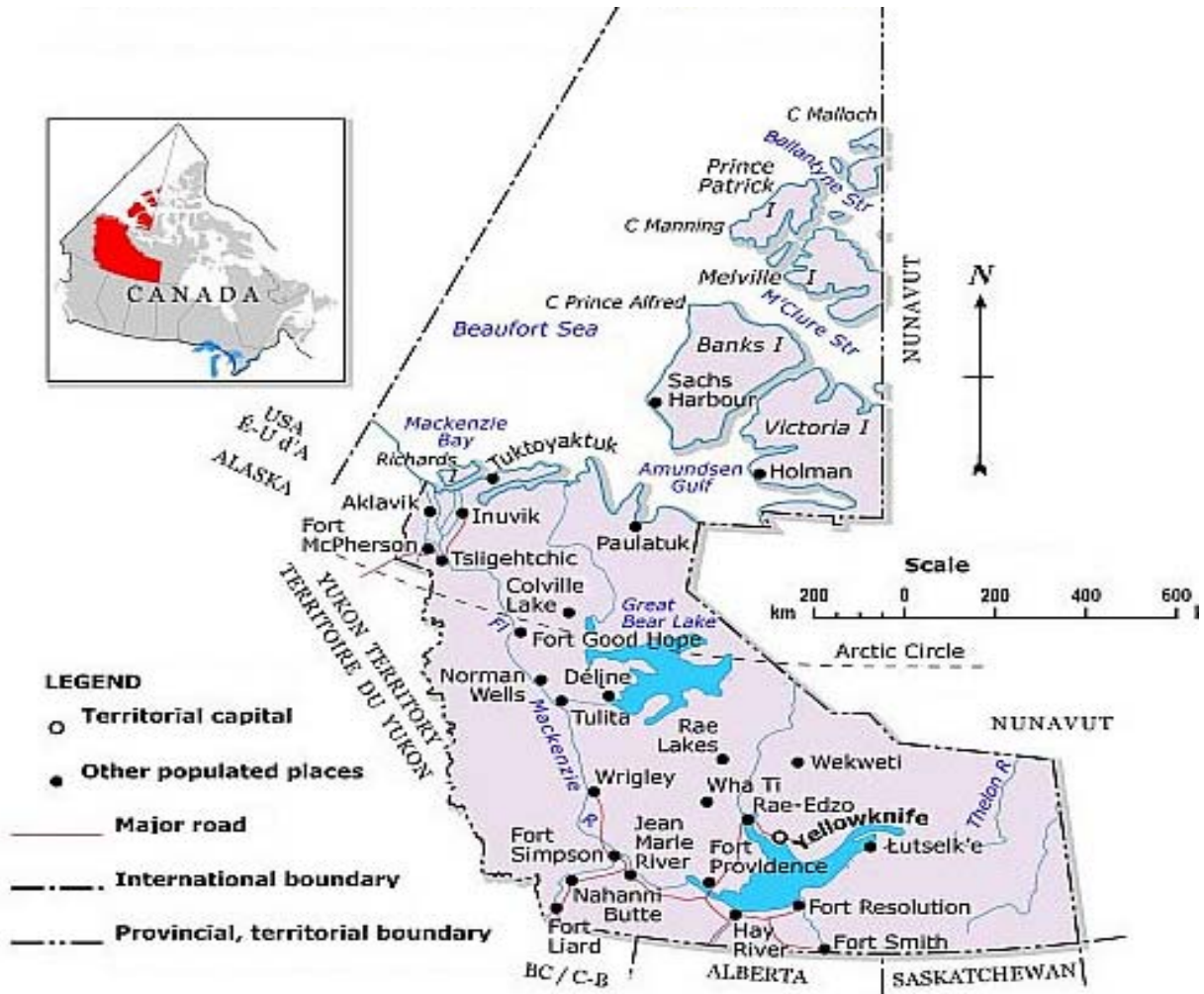
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**Resources, Wildlife and
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Northwest Territories



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INTRODUCTION

This document provides a status report on agricultural programs, services, and policies administered by the Northwest Territories and federal governments, as well as a summary of initiatives taken by the private and non-government sectors. The target readership includes individual farmers, non-governmental organizations like the Territorial Farmers Association, agricultural land applicants, other government departments, and interested public.

This report summarizes the agriculture sector's activities and developments from 1970 to the year 2000. Included is a history of agriculture in the Northwest Territories from its beginning in the late 18th century to the present. This background gives an insight into how agriculture in the north has emerged and developed over the years.

The geography, climate, and soils of the north are also discussed in this report. Producers in the Northwest Territories face many challenges from local soil capabilities and climatic conditions. Through experimentation and innovative methods greenhouse, livestock and market garden operations have been successful despite harsh arctic and sub arctic conditions.

In the future the Territorial Farmers Association hopes to see a proposed agricultural policy adopted by the Territorial Government. This would hopefully allow access to land and increase agricultural production in the north. Eventually the TFA would like to see the Northwest Territories on the same footing as agricultural producers in the rest of Canada in regards to agriculture programs, subsidies and benefits.

HISTORY

Agricultural production has had a long history in the Northwest Territories starting with vegetable gardens and early agricultural ventures by traders of the Northwest Company and the Hudson's Bay Company. The first recorded garden was near the mouth of the Athabasca River in 1789. In this year Alexander Mackenzie, on his way to explore the river that now bears his name, reported an excellent garden around the fur trading post of Peter Pond. Soon after this, the fur trading posts and missionaries established gardens at several other points. Every Hudson Bay Post as far north as Aklavik had its own garden by 1826.

In 1880, the NWT included Alberta, Saskatchewan, the Yukon and most of the current Western NWT. The Keewatin included the current region plus Manitoba. The North East Territory included part of Nunavut plus Labrador, Northern Quebec and parts of Ontario. By 1895 Canada and the NWT had changed significantly. There were no longer a Northwest or Northeast Territories. The NWT was split into the Yukon, Mackenzie, Keewatin and Baffin districts. The Northern part of Alberta and Saskatchewan were grouped into the Athabasca region. In 1905, as agricultural settlement spread into the Prairies, the provinces of Alberta and Saskatchewan were created. Their expansion north to the 60th parallel gave rise to requests from Manitoba, Ontario and Quebec for northern extensions. In 1912 these provinces attained their present limits and boundaries of the Northwest Territories remained fixed until the creation of Nunavut in 1999.

Roman Catholic Missions in the South Slave and along the Mackenzie River undertook garden trials for the Department of Agriculture in 1911. The Mission operated a sub-station of the Dominion Experimental Farm Services that included trial locations at settlements such as Fort Resolution, Fort Providence, Fort Smith, and Fort Good Hope. The major objective of the project, and at most sites the only objective, was to determine what crops could be grown and the best varieties for home and garden use. Unfortunately, the experiments failed to satisfy all scientific criteria due in part to the Mission's lack of scientific expertise.

In 1915, a research station was established at Beaverlodge, Alberta and experimental plots began in both Fort Resolution and Fort Smith. In Fort Smith, the Anglican Mission and the Hudson Bay Company participated in the growing of crops and vegetables such as potatoes, turnips, carrots, beets, onions, cauliflower, cabbages, peas, and barley.

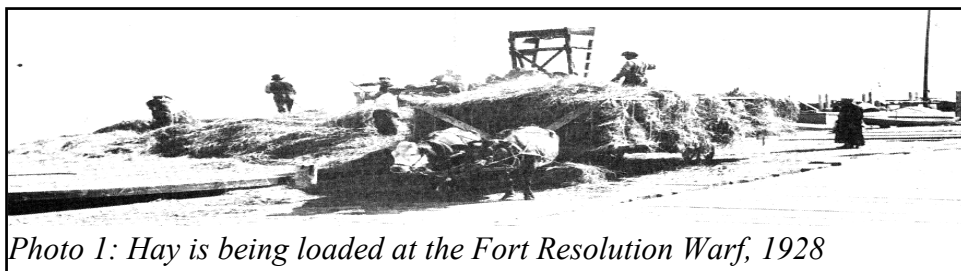


Photo 1: Hay is being loaded at the Fort Resolution Warf, 1928

Agricultural activities were monitored by various government agencies during the 1930's and 1940's. In the 1930's the Department of the Interior reported on the crops grown in the Mackenzie District which included cereals, grasses, vegetables, root and cole varieties. Crops and vegetables grown included wheat, barley, western ryegrass, timothy, brome grass, red top, carrots, turnip, potatoes, cabbage, swiss chard, parsnips, cauliflower, beets, beans, celery, lettuce, radishes, tomatoes and occasionally fodder corn and cucumbers. In 1930 the late Dr. Albright described the gardens along the Mackenzie River including three inside the Arctic Circle. He found peas a meter high, on July 2nd at Fort McMurray, apple trees which had been bearing for years at Fort Resolution, tomatoes ripening from field seeding on the Liard River and many others. The Dominion Experimental Farm Services in 1943 revealed that the total amount of land under cultivation in the NWT had reached 103 hectares, representing 148 gardens and 10 farms.

Between 1945 and 1970, Fort Simpson was the site of an agriculture research station that eventually became a sub-station of the Agriculture and Agri-Food Canada's Beaverlodge Research Station. During the start of cooperative agricultural experiments at Fort Simpson, an interdepartmental committee was formed to assist with the improvement and promotion of agriculture in the NWT. This committee recommended that soil and horticultural surveys be conducted in the Mackenzie District between 1944 and 1945. Trials also began in 1948 on cereal grain and forage crops.

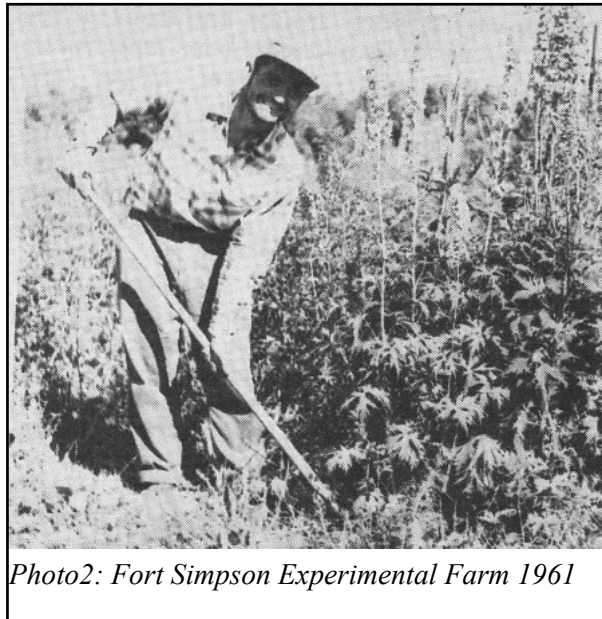


Photo2: Fort Simpson Experimental Farm 1961

Production of vegetables was a proven success. The horticultural survey revealed considerable success in growing vegetables for local consumption, and that specific farm enterprises could be pursued economically. On the other hand, livestock was scarce, perhaps due to the high cost of imported feed. There were only a total of 71 head of horses and cattle reported in 1944. There were also a few goats and sheep.

The livestock that were kept in Fort Smith and Fort Simpson were fed on locally grown grain and hay. In recognition of the potential for livestock farming, the Medical Officer stationed in Aklavik commenced a dairy experiment in 1946. He used native grasses in the summer and in winter, locally produced green oats and grasses harvested from sedge meadows in the Delta. The experiment was of limited success. Several settlements also kept poultry for meat and eggs.

Agriculture continued to flourish and expand as the demand for fresh produce grew with rising populations. An experienced agriculturist was appointed to take charge of the Fort Simpson experimental station in the fall of 1947. The Yellowknife substation was bypassed as it was felt at the time that the lands in the Fort

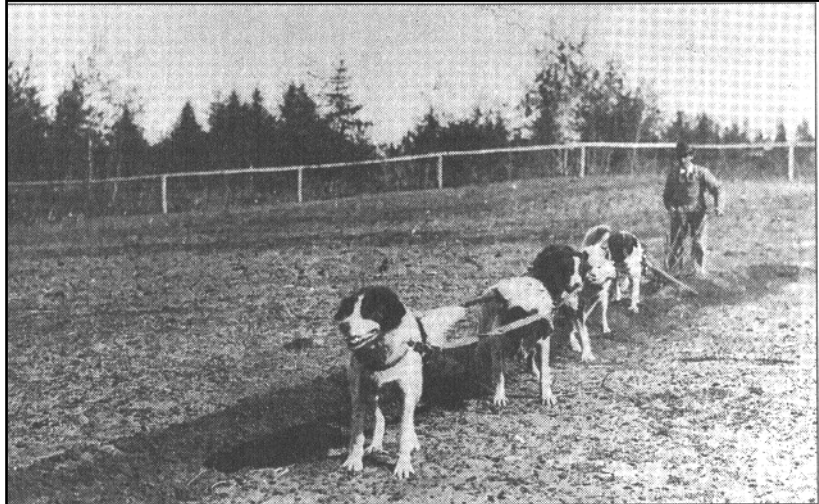


Photo 3: Dog team being used to plough in Fort Smith

Simpson area and the southern region of Great Slave Lake had greater potential for agriculture development. Major studies were done and the development of early maturing varieties pushed the Canadian agricultural frontier northward and westward.

In the Eastern Arctic, agricultural activities had seemed impractical. However, some government officials, merchants and missionaries grew vegetables in greenhouses using imported soils and fertilizer. At Chesterfield Inlet, it was even possible to grow lettuce successfully on small plots of native soil without the aid of greenhouses.

Local interest in agriculture weakened in the 1960's with the construction of highways connecting communities in the Mackenzie, Liard and Slave River Valleys as they permitted the replacement of locally grown subsistence agricultural products by imports. A few people continued to be engaged in agricultural activities, usually on a part-time hobby farm basis. In spite of the decline of agriculture, land was readily available. Prospective farmers were able to purchase up to 65 hectares of arable land or lease up to 259 hectares for farming purposes or up to 259 hectares for grazing.

The Fort Simpson Experimental Station continued to demonstrate the technical feasibility of agriculture in the NWT. Experimental plots were started at Inuvik to test gardening over permafrost. The results were positive and encouraging. In 1965, the station had six permanent agriculturalists that conducted field trials at various locations in the Mackenzie District. In 1966, in an effort to save agriculture in the NWT, the Advisory Commission on the Development of Government in the Northwest Territories recommended the creation of "... a department of lands and resources, with jurisdiction over game, forestry, agriculture, and surface rights to land and adjacent to the settlements." This was to no avail: in 1970 the Department of Agriculture closed the Fort Simpson experimental farm because commercial agriculture was not following and because at that time it did not appear that the "North" would ever be anything but a wilderness area.

There was a brief revival of interest in agriculture following the phenomenal increase in beef prices in 1970. The interest was directed at low cost grazing lands for potential operations that would serve southern markets. That interest was accompanied by applications for large tracts of land for grazing purposes. In one particular case, the Federal-Territorial lands Advisory Committee received an application for 20,263 hectares for agricultural development on



Photo 4: Red McBryan's Calves

unsurveyed land whose agricultural capability was not fully known. Growing interest culminated the incorporation of the Territorial Farmers Association in 1973 with the purpose of providing a representative organization for all agricultural producers in the Northwest Territories

On January 10, 1975, a temporary suspension of land disposition for large-scale agricultural operations was introduced, due to Land Claim issues, pending fieldwork and the development of long-term land disposal policies. In 1977 the Federal and Territorial governments jointly announced a policy allowing 10 hectares, within block land transfer areas, for market gardens. The same year, the Legislative Assembly stated its objective was to “develop a positive agricultural policy to enable the north to reduce as far as is economically justifiable its dependence on outside sources of supply”. In 1979 the Federal Government again initiated that they would consider disposition of certain well-defined tracts of land for agriculture if the Government of the NWT developed an agricultural policy.

Also during the 1970's, Agriculture Canada conducted a series of Soil Reconnaissance Survey's in the Liard River, Upper Mackenzie, and Slave River Lowland areas. In approximately 1971 or 1972, the territorial government hired the University of Alberta to conduct tests of the feeding and grazing of musk ox in the Horn River area for the purposes of establishing a musk ox ranch. However, the Land Claim issues ended the musk ox ranch proposal.

In May of 1981, consideration for the Development of an Agricultural Policy was tabled in the legislative assembly as it was felt that this policy would be defeated. In the mid 1980's, intensive agricultural projects such as the egg operation in Hay River sparked the GNWT to renew its work on the development of a policy. In 1990, the then Dept. of Economic Development and Tourism worked on a background report for a policy.

From 1989 to 1991, several members of the Territorial Farmers Association (TFA) conducted Horticultural Research and Demonstration Projects that focused on horticultural variety testing and trials. Trials were performed on cole and root crops in the South Slave area, Fort Smith, and Hay River. Although valuable information was generated, the TFA members desired more variety trials and alternate growing techniques. Over the past several years, agricultural research has continued through the efforts of the TFA with field trials being conducted for soft fruits, cole crops and forage crops in Fort Smith, Hay River, Enterprise, and Fort Providence. The TFA has classified field trials as Northwest Territories Agricultural Research and Demonstration Projects and has incorporated the methodologies and equipment practices in the growing of the respective crops. Field trial results varied in success and involved a variety of seeding, cultivation, and irrigation methods applied at different sites to several varieties of cabbage, broccoli, cauliflower, strawberries, and forages. The objectives of the agricultural research and projects conducted by the TFA were to expand market garden production, forage production, and apiarian production (bee production), and improve animal husbandry techniques for domestic livestock.



Photo 5: Greg Haist's Field near Hay River, Summer 2000

In January of 1995 the TFA submitted a draft NWT Agriculture Policy to the GNWT interdepartmental working group. The intentions of the policy were to:

- Encourage agricultural development;
- Ensure that development is sustainable and in accordance with sound conservation practices;
- Release agricultural land for sale or lease in a fair and equitable manner;
- Preserve agricultural land; and
- Ensure that competing land uses are fully considered.

The document was reviewed and returned for revision and clarification. The Government of the Northwest Territories identified a need to determine the costs and benefits to the GNWT of this draft policy.

In October of 1997 the TFA undertook an economic impact of the proposed NWT agricultural policy on the Government of the Northwest Territories. The study provided a quantification of direct and indirect costs and benefits resulting from the activities of farm operations on the GNWT. The target market share was estimated at 25% of the NWT consumption of select food ingredients for a 5 year timeframe. Benefits to the economy were estimated based on the numbers directly employed in farming, the spending pattern of those individuals, the number of additional jobs this spending would support, and the income generated by the spending of the operations themselves. The costs were determined based on the premise the policies as drafted were fully implemented. The findings of the study are as follows:

- A minimum of 80 jobs would be created in the NWT as a result of minimal support for an agricultural sector.
- An agricultural policy would stimulate a minimum of \$6.0 million in production of red meat, poultry, dairy, fresh vegetable, forage, cereal, and other agricultural products in the NWT.
- An agricultural industry could have a very positive impact on the NWT economy with the sum of effects giving a total industry output (multiplier) greater than \$2.5 million annually.
- Based on comparable costs of agricultural programs in neighboring jurisdictions, costs to the GNWT are estimated to range between \$540,000 and \$639,000 to implement equitable policies.
- The Territories has not leveraged its Federal partners for their share of support for rural development.

The GNWT requested a second economic study be completed shortly after receiving the first one. Unlike the previous study, this one would include the Western Arctic only and would provide the following:

- The present and potential level of market penetration of Fort Smith region produced products in the NWT market.
- Outline and substantiate obstacles to reaching full domestic market potential.
- Better define consumer needs and expectations relative to domestic food products.
- Quantify the economic impacts resulting from the food production activities on the Northwest Territories.

Serecon Management Consulting Inc prepared the Northwest Territories Agricultural Research Business Plan for the Territorial Farmers Association in December 1998. The objectives of the study were to:

- Determine the activities required to establish a research facility;

- Outline the key operational requirements of such a facility, the scope of potential research strategies;
- Identify the proposed research requirements for the first five years of operation of the facility;
- Estimate the costs associated with the establishment and administration of the facility; and,
- Provide guidelines for research project solicitation, acceptance, and progress monitoring.

Considerable work and the purchase of capital (land, buildings, equipment etc.) are required to put the Plan into action. Currently TFA funding is not available for capital projects.

On April 1, 1999 Nunavut was created out of the eastern portion of the Northwest Territories reducing its area by more than half. The Territories were split along a boundary running from the Saskatchewan-Manitoba border through the arctic islands to the North Pole (see map). The division is not expected to have a negative impact on northern agriculture, as most present and projected agricultural activity is concentrated in the Western Arctic. There may actually be an opportunity for improving the agricultural industry in the north. Greater support and interest is expected from the MLA's of the remaining Northwest Territories toward agricultural pursuits as they will now benefit the majority of the communities within the territory. The MLA's of the Eastern Arctic were not usually in support of agricultural initiatives, as they did not have a significant impact on their region.



Map 1: N.W.T. and Nunavut

THE AGRICULTURAL LAND BASE

GEOGRAPHY

Nunavut borders the Northwest Territories to the east, Saskatchewan, Alberta, and British Columbia to the south, and Yukon Territory to the west. In the north the territories extend far above the Arctic Circle to incorporate numerous islands; several islands are also divided between the NWT and Nunavut, notably Victoria and Melville islands. The territories have an area of 1,526,300 square km (589,300 square miles) and a population of approximately 41,400.



Photo 6: View of Inuvik area from helicopter

Two main types of landscape blend into one another along the timberline, which runs southeastward from near the Mackenzie River delta on the Arctic Ocean to northwestern Manitoba and is just west of --and roughly parallel to--the border with Nunavut. Southwest of this line lies the northernmost part of the Canadian boreal forest (taiga), extending westward to the mountain ranges that border Yukon Territory. North and east of the timberline stretches the relatively barren grounds of the Arctic: reaches of flat, often poorly drained lowlands underlain by Precambrian rock more than 540 million years old in the east and more varied terrain in the north. Within each of these two regions, the surface vegetation and the animal life it supports vary with soil and climatic conditions. The Mackenzie Mountains in the west and southwest contain the highest and most rugged relief in the territories; elevations reach 2,773 meters (9,098 feet) at an unnamed peak in the southwest near Mount Sir James MacBrien, itself 2,762 meters (9,062 feet) high.

CLIMATE

Two major climate zones, the arctic and subarctic are present in the Northwest Territories. While both regions have extremely cold and long winters, the arctic climate has a shorter and cooler summer with the average monthly temperature remaining below 10°C (50°F). The subarctic climate has a longer and warmer summer, with at least three months having average monthly temperatures exceeding 10°C. During the long, cold winter, temperatures often reach -50°C (-60°F) in both climate zones.

The arctic climate is the most northerly in the world. It lies north of the tree line and is associated with tundra vegetation. The daily mean temperature in Inuvik is -28°C (-19°F) in January and 13.8°C (56.8°F) in July. On average, the frost-free period ranges from 40-60 days although freezing temperatures can occur in any month in the arctic. Annual precipitation is light, averaging not more than 6 cm near the arctic coast, and the soils, where they exist at all on the heavily glaciated surface, are usually sandy and thin. Mosses, lichens, and many small hardy flowering plants survive in these conditions. The northern Mackenzie is the “land of the midnight sun”, featuring 23 hours of sunlight or more through much of June and July. This increased sunlight allows for successful greenhouse operations and the production of root crops and green vegetables where ample soil deposits exist.

The subarctic climate prevails over most of the Northwest Territories, particularly in the Mackenzie Valley, where forests of black spruce and white spruce mixed with deciduous species extend north to the Mackenzie delta. The climate there is relatively mild, with warm and dry summers during which mean July temperatures of 16°C (60°F) are recorded at most of the settlements along the Mackenzie River. The winters are long and cold, with an average mean January reading at Yellowknife, on the northern shore of Great Slave Lake, of -28°C (-18°F). With only about 70 frost-free days, the growing season is short. During this time however, wildflowers and grasses flourish, and root and cereal crops can be cultivated. The growing season is longer in Hay River with approximately 95 frost-free days allowing for more substantial crop production. In much of the Mackenzie Valley the shorter growing season is offset by the long hours of daylight. There are about 20 hours of daylight in June in the Southern Mackenzie and the area averages eight hours of bright sunshine a day throughout the summer. Annual precipitation in the Mackenzie Basin is light, ranging from 23 to 38 cm and snowfall averages about 127 cm.

NORTHWEST TERRITORIES AGRICULTURAL AREAS

The four areas of the NWT considered most suitable for agricultural development, based on soil and climatic conditions, are the Slave River Lowlands, the Upper Mackenzie River Area, the Hay River Valley and the Liard River Valley. Reconnaissance soil surveys at a scale of 1:250,000 have been done in the Liard River Valley (Day 1966), Slave River Lowlands (Day 1972) and the Upper Mackenzie River area (Day 1968). Preliminary soil surveys, scale not known, have also been done in the Hay River Valley (Kozak and Rostad 1977).

SOIL

Because NWT soils have developed in a cold climate over a relatively short period of time (approximately 10,000 years) most soils considered suitable for agricultural development occur on fluvial and lacustrine deposits in river valleys or immediately adjacent to rivers or lakes. The elevation of most of these lands is usually around 550-600 feet (168-183 m) above sea level. The soil profiles are usually weakly developed (Orthic Regosols and Orthic Brunisols) and have low organic matter and nutrient (nitrogen and phosphorous) contents in the surface mineral horizons. Soil textures range from sandy loam to silty clay. Permafrost is scattered throughout the southern Northwest Territories and is continuous in the northern regions.

In 1966 a reconnaissance soil survey of the Liard River Valley was undertaken. The southwest corner of the Northwest Territories was surveyed including the lands adjacent to the Liard River from the 60th parallel to the Mackenzie River, and along the Mackenzie River between Martin River and longitude 121°00' at Green Island.

A 1968 soil survey of the Upper Mackenzie River Area covered an area of 1,922,065 hectares. The area surveyed included the lands west of the Hay River in a wide band around the west end of the Great Slave Lake and down the Mackenzie River to Green Island at longitude 121°00', and a narrow band on both sides of the Yellowknife Highway between mile 40 and Frank Channel near Rae.

Survey work was conducted in 1972 to determine the agricultural potential of the Slave River Lowland. The Slave River Lowland is in the southwestern part of the Northwest Territories. It is bounded on the south by the NWT-Alberta border, on the north by Great Slave Lake and on the east and west by the Taltson and Little Buffalo Rivers.

In 1977, a soil survey and land evaluation was done of the Hay River Valley Area (Kozak and Rostad 1977). The survey area included the lands on either side of the Hay River extending from the 60th parallel to Great Slave Lake forming a band approximately 22 km wide and 112 km long. The results from these soil surveys are summarized in table 1.

	Liard River Valley	Upper Mackenzie River Area	Slave River Lowland	Hay River Valley	Total Class
Class 2	30,729				30,729
Class 3	153,239	231,377	155,777	19,355	559,748
Class 4	126,235	318,381	48,557	4,786	497,959
Class 5	138,138	262,470	482,612	109,617	992,837
Class 6			39,045		39,045
Class 7 & 0	98,543	943,158	78,052	123,633	2,236,223

Table 1: Hectares of Soil Capability of Classes in the Upper Mackenzie River and Slave River Lowland

Source: Agriculture Canada, Soil Survey Maps, Day 1966, 1968, and 1972; Kozak and Rostad 1977.

- Class 2:** Soil and climate limitations are moderate. Good soil management and cropping practices can be applied without serious difficulty.
- Class 3:** Soil and climate limitations in this class are moderately severe restricting the range of crops or making special conservation practices necessary.
- Class 4:** Soil and climate limitations in this class are severe restricting the range of crops or requiring special conservation practices or both.
- Class 5:** Soil and climate limitations in this class are very severe restricting production to perennial forages. Improvement practices are feasible.
- Class 6:** Soil and climate limitations in this class restrict production to forages only. Improvement practices are not feasible.
- Class 7:** Soil and climate limitations in this class make production impossible.

SETTLEMENT PATTERNS

The Territories are among the most sparsely populated habitable regions of the world. Nearly all the population lives in small settlements along the Mackenzie River, with smaller numbers along the Arctic coastlines of the mainland and northern Islands. In addition to Yellowknife, the main towns are Hay River, Fort Smith, and Inuvik; all are in the Mackenzie area.

TRANSPORTATION

An ongoing northern roads program, launched in 1966, is helping to open up the area. The Liard Highway, opened in 1984, ties Ft. Simpson to the Alaska Highway. Other highways link Inuvik to the Yukon and Hay River and Yellowknife to the highways of Alberta. In winter, some frozen rivers and lakes are used for road traffic. Transport providers include trucking, barging and rail services. Barges are operated seasonally on the Great Slave Lake and connecting waterways. Major airports are located in Yellowknife, Inuvik, Hay River, Fort Smith, and air charters and courier services are available throughout the NWT.

LAND POLICIES

The NWT Ministries in charge of investments in infrastructure related to agriculture such as land development, roads, services (electricity, fuel, etc.) are the Department of Indian and Northern Affairs and Northern Development (DIAND), the Department of Municipal and Community Affairs (MACA) and the Department of Resources, Wildlife and Economic Development (RWED). As set out by legislation, disposition of agricultural lands is under the legislative authority of the Commissioner of the Northwest Territories. DIAND will administer the federal territorial lands, whereas the GNWT will establish the agricultural policy and infrastructure to support it. DIAND will participate in co-management planning, land use and water boards. Water use and quality is controlled by DIAND, the Department of Fisheries and Oceans and Environment Canada's Environment Protection services. The GNWT does not own land and natural resources, but has legislative powers over private property and Commissioner's Lands, and some operational, safety and conservation matters. Commissioner's Lands (1% of NWT) are in and around the settled communities.

Acquiring Crown Land in the NWT is dependent on:

- Negotiations of land claims of the Dene, Metis and Inuit with the Department of Indian Affairs and Northern Development;
 - Selection of the site to be acquired, accompanied by a Land Agent; and,
 - The adherence of the various Acts and regulations identified below:
1. *Commissioner's Land Act and Regulations* applies to the sale, lease or other disposition of Commissioner's land. Land Agents have the power to accept or reject applications in accordance with the Act. Under the *Area Development Act*, the Commissioner may designate any area in the Territories as a development area where the Commissioner considers that it will be necessary in the public interest to regulate the orderly development. This area must not exceed 150 km². Orderly development addresses development of permits and building requirements, appeals, zones and uses including the allocation of land in the area for agricultural purposes.
 2. Under the *Planning Act*, a council of a municipality may prepare a general plan for development with considerations given for orderliness, the economy and convenience, surveys, studies of land use, population growth, the economic base of the municipality relating to transportation, communication, public services and social services. Council may provide for acquisition, assembly, consolidation, subdivision and sale or lease by the municipality of lands and buildings that are necessary to carry out the development scheme; and reserving land for future acquisition.
 3. In accordance with the *Land Valuation Policy or Land Pricing Policy*, the GNWT will price Commissioner's land for lease, sale or other disposition administered by the Department of Municipal and Community Affairs. The Minister may approve a MOU to transfer ownership of Commissioner's land to a community government and request Cabinet approval for exceptions to the Policy. Under this policy, agricultural

land will be priced according to the higher of market value or development cost; annual lease fees will be 5% of this price; and agreements may be made for the forgiveness of part of the sale price or lease fee in relation to improvements made to the land.

4. Under the *Municipal Land Policy*, Land Administration Agreements enable the Minister to designate a municipal corporation as sole agent for disposal of crown lands to public within that municipality.
5. *Land Lease Only Policy* refers to the public disposition of certain Crown lands within the local government boundaries of communities within the Dene/Metis (Gwich'in, Sahtu, North Slave, South Slave and Deh Cho) Settlement Areas. Exceptions are lands under sales construction, lands for which planning is incomplete, and lands for development under the Community Development Plan.
6. All establishments must comply with the *Public Health Act*. Section 25 contains regulations which relate to the location, construction, ventilation, lighting, heating, equipment, water supply, drainage, toilet and washing facilities, excreta and garbage disposal, protection against rodents and vermin, cleansing, disinfecting and sanitation aspects which may influence agricultural production and processing operations.

Other acts and regulations that apply to wildlife management include:

- Wildlife Act Preserves: James Bay, Norah Willis Michener Territorial Park Game Preserve, Peel River Preserve;
- Wildlife Management Zones; and,
- Wildlife sanctuaries include Bowman Bay, Mackenzie Bison, Thelon Wildlife, and Twin Islands.

The First Nations and Northerners, in partnership with DIAND are assuming greater control over their land, social and economic direction and governing laws. There are seven settlement regions within the NWT. Four land claims have now been settled: the Inuvialuit, Sahtu, Gwich'in, and Nunavut claims. The Inuvialuit Final Agreement was signed in 1984, providing 2,500 Inuvialuit with 91,000 km² of land, \$152 million over 13 years, a \$10 million Economic Enhancement Fund, a \$7.5 million social Development Fund and guaranteed hunting and trapping rights. The Gwich'in Agreement provides for 24,000 km² of land in northwestern NWT, a non-taxable payment of \$75 million over 15 years and royalties from the Mackenzie Valley. The Nunavut Land Claims signed in 1993 is the largest comprehensive claim in Canada, providing 17,500 Inuit with 350,000 km² of land, \$1.17 billion over 14 years and royalties to resources and hunting rights. The Sahtu Dene Metis Agreement signed in 1994 provides 41,437 km² of land, a share of resource royalties from the Mackenzie Valley, guaranteed wildlife harvesting rights and \$75 million over 15 years. The Land Claim Settlements have progressed from the most northerly peoples towards the south. Negotiations with the North Slave, South Slave and Deh Cho peoples are ongoing.

Homesteads are not available in the NWT. Small acreages of land are available for growing truck crops for local markets and community gardens for individual use (market gardening) and lands under municipal and/or the Commissioner's administration are given priority in meeting this demand.

Residential land may be available outside communities if it is required in connection with a business operation located outside the community.

PRODUCTION

LIVESTOCK

CATTLE

In the summer of 2000 a herd of 13 Dexter cattle were brought to Paradise Valley in Hay River. In the past there were cows kept at many of the mission sites as well as cattle operations in Aklavik, Hay River, Fort Smith, Horn River and Yellowknife.



Photo 7: Dexter Cow

Beef

Over the last 30 years there have been beef operations in the Horn River, Fort Smith and Hay River areas. Hereford and Shorthorn cattle were brought to the Horn River in the early 70's but found to be plagued with black fly infestations, they were replaced with Aberdeen Angus cattle. The Horn River operation died out in the mid 70's. In the early 80's there were Herefords, Charolais and Highland cattle on Ryan Island near Fort Smith. Highland cattle were purchased and located near Hay River in 1970. Originally 2 cows and 1 bull were purchased, then the Highlands were crossbred with Angus. In the early 90's the herd of 38 cattle were sold off due to the owner's health.

Dairy

In 1985 Agriborealis, a local company, decided to get milk production going. A 70-cow dairy production and processing operation was then established in Yellowknife. This plant was capable of producing enough milk for about one third of the Yellowknife market. The plant was shut down in 1987 due to strict regulations that had been brought into effect and enforced.

PORK

Other than the hog barn that closed down in 1997 there has been no commercial pork production. There are a few privately owned pigs such as the two pictured here.



Photo 8: Pigs in Mud

SHEEP

There has been a sheep farm in Trout Lake. The flock has been as high as 17 animals.

GAME FARMING

Processing plants have been established at Cambridge Bay and Rankin Inlet in order to handle the harvest of wild caribou and musk ox; the Rankin Inlet plant also handles fish.

Reindeer

There is a reindeer herd in the Mackenzie Delta that has largely fallen into disuse as a meat source due to disease. The herd was originally from Russia, brought over to establish Alaskan herds, the reindeer arrived in the Mackenzie Delta in 1934-35. The journey from Alaska took 7 years. The main harvest today is velvet, from the antlers, which is sold to Asian markets.

Bison

The first bison ranch in the NWT was The Hanging Ice Ranch established in 1990 on the Slave River down from Ft. Smith. In 1996 the herd of 100 bison was moved to the Edjericon Bison Ranch 1 km west of Little Buffalo River, 25 km from Ft. Resolution.

Fur Farming

In 1985 there was a silver fox farm on a river flat acreage about two kilometers south of Paradise Valley on the Hay River Corridor. The farm began with 50 animals then closed down about seven years later, pelting-out 650 foxes. The closure was due to a major drop in fur prices.

OTHER

Poultry

There are two commercial egg producing barns in the Hay River area. There is room for growth in the broiler chicken industry, as there are no commercial broiler operations in the NWT. The major limiting factor to a meat bird operation at this point is the lack of an abattoir.

There are limited numbers of broiler chickens, ducks, geese, turkeys and game birds being raised in the NWT but mainly for private use.



Photo 9: Goose

Rabbits

Rabbits have been raised for meat but not as commercial operations.

CENSUS OF AGRICULTURE

Due to small number of respondents many numbers from the census have been kept confidential, which makes it hard to get a good idea of the number of livestock in the NWT at this time.

	1976	1981*	1986	1991	1996
Total # of Farms	9	15	11	27	23
Cattle	-	47	X	X	X
# of Farms reporting	-	-	1	2	1
Horses	5	10	X	7	X
# of Farms reporting	-	-	3	3	2
Hens & Chickens	333	760	X	X	X
# of Farms reporting	-	-	1	5	2
Other Game	-	-	-	47122	X
# of Farms reporting	-	-	-	3	2

Table 2: Census of Agriculture results for the NWT from 1976 - 1996

X confidential to meet secrecy requirements of the *Statistics Act*

- nil or zero

*note the 1981 census included land outside the Territories owned by NWT residents.

FIELD CROPS

GRAIN

The production of cereal grains in the Northwest Territories is limited, primarily due to climatic conditions, and especially the high risk of frost during the growing season. There are new varieties of grains being developed that mature earlier than traditional varieties. These new strains may be beneficial to northern growers. Grain has been produced in the NWT, mainly to meet requirements for feed. South of Hay River, Red McBryan



Photo 10: Red McBryan's baler and hay field

currently grows alfalfa oats and brome. He has had success with canola in the past but found that it was too far to take his crop to the grain elevator. The main field crop grown in the north is potatoes. In 1996 seven farms reported growing a total of 16 acres of potatoes.



Photo 11: Red McBryan's alfalfa field

FORAGE CROPS

Much of the agricultural land in the Northwest Territories is suitable for forage crops. Forage can be grazed directly or made into hay. Forage production is primarily based on the growing of brome grass and to a much lesser extent, timothy, and a legume such as alfalfa. Greenfeed involves the production of oats, and sometimes barley and fall rye, as forage crops.

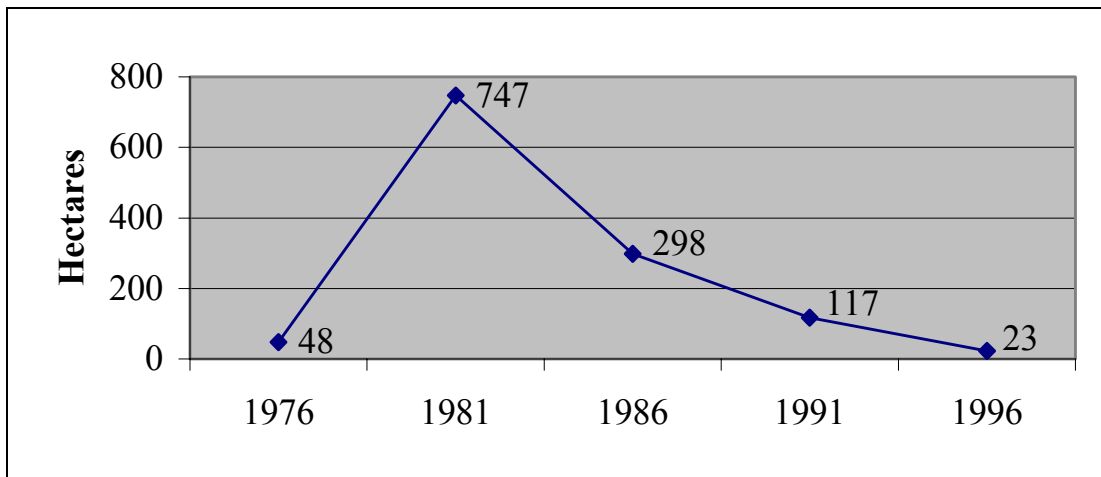


Figure 1: Field crops grown in the NWT

*Note the 1981 census included land outside the Territories owned by NWT residents.

GREENHOUSE PRODUCTS

Greenhouse production is strong in the NWT. Greenhouses are used to produce flowering bedding plants along with vegetables. There are currently commercial greenhouse operations in Inuvik, Norman Wells, Ft. Smith and Hay River. According to the 1996 census there were 4 operations with a total of 493m² under glass while there were 3 farms actually operating greenhouses reporting that 493m² were in use on May 14, 1996.

The Community Garden Society of Inuvik started the Community Greenhouse Project in Inuvik in 1998. The purpose of the greenhouse is to ensure a more successful harvest and allow production of a greater variety of crops in an area where fresh economical produce

is often unavailable. Garden plots are available for the residents of Inuvik for a small annual fee. The 370m² commercial greenhouse produces bedding plants and hydroponic vegetables to cover operation and management costs.



Photo 12: Greenhouse at Paradise Gardens

VEGETABLES AND BERRIES

Various berries have been produced successfully in the Northwest Territories. On the 1996 survey it was reported that strawberries, raspberries, blueberries and other berries (such as saskatoons) were grown for sale.



Photo 13: Saskatoon Berries at Paradise Gardens

Some vegetable crops such as tomatoes, cucumbers and lettuce have been grown for sale at market gardens.

NATIVE MOREL MUSHROOM HARVEST

Prolific fruiting of native morel mushrooms is triggered by forest fire activity, especially in the year following the fire. Studies have concluded that when there are burns with easy road access morel mushroom harvesting can be profitable in the NWT.

HONEY

Bees have been brought in from the south on several occasions but only on a small scale. The bees brought up north are not over wintered so a new population is brought up each spring. There is currently a commercial honey operation in Fort Simpson.

CENSUS OF AGRICULTURE

Total area of land used for farming in the NWT has decreased over the last few years, this may be due people finding it difficult to obtain land.

	1976	1981	1986	1991	1996
Total # of Farms	9	15	11	27	23
Field Crops (hectares)	48	747	298	117	23
# of Farms reporting	-	-	6	9	8
Greenhouse in use(m ²)	-	-	X	766	493
# of Farms reporting	-	-	1	4	3
Berries (hectares)	-	-	-	9.8	9.5
# of Farms reporting	-	-	-	3	5
Vegetables (hectares)	-	-	-	3.7	2.4
# of Farms reporting	-	-	-	3	4
Total # of tractors	-	-	16	25	12
# of Farms reporting	-	-	8	14	9

Table 3: Census of Agriculture results for the NWT from 1976 – 1996

X confidential to meet secrecy requirements of the *Statistics Act*
- nil or zero

AGRICULTURAL SALES

The total value of agricultural sales has grown steadily from 1986 to 1996 in the Northwest Territories. This is mainly due to the sale of eggs by the two commercial chicken barns as well as the abattoir and the hog barn.

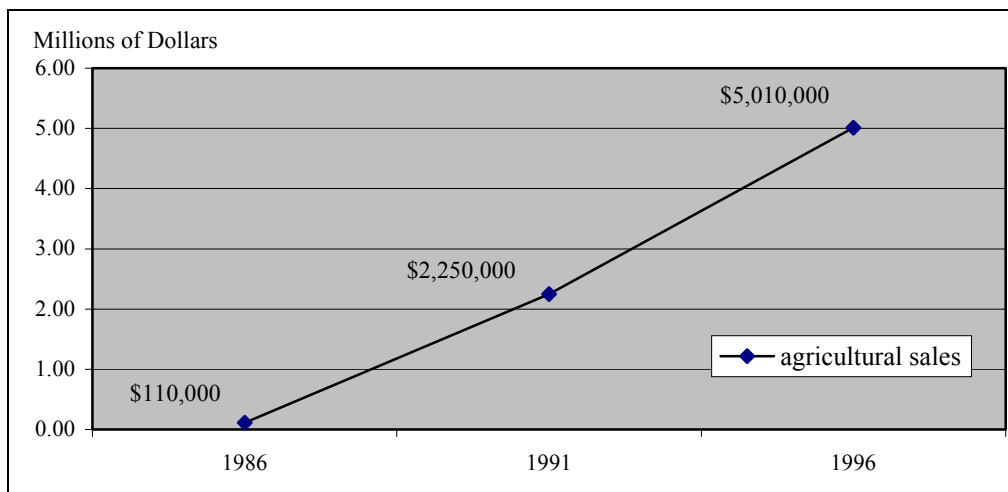


Figure 2: Growth in the value of agricultural sales in the NWT

INFRASTRUCTURE

CHICKEN BARN

Layers/egg production

This sector has seen some decrease over the last few years due to an egg quota. A quota of 115,000 eggs was brought in by the Canadian Egg



Photo 14: Eggs R Us Chicken Barn

Marketing Association (CEMA). Egg producers are currently in the process of normalizing the number of birds each producer has. Currently there are two commercial egg operations in the NWT.

Northern Poultry, located in the industrial area of Hay River, has about 46 000 Leghorn hens. They grade, clean, and package the eggs daily for the local NWT and Yukon markets. The layers in this barn produce about 960 000 dozen eggs a year.



Photo 15: Chickens inside Barn

Eggs R Us is located just south of Hay River. They have about 69,000 hens and make designer products such as eggs with high amounts of Omega 3. These eggs are graded at the Northern Poultry facility then exported out of the NWT.

HOG BARN

Northern Pork, a 100 sow farrow-to-finish operation, began building a barn just south of Hay River in 1991 and production began in early 1992. About 1000 animals were in the barns including brood sows, boars, finishing hogs, from newborns to finished and breeding stock. Three breeds: Yorkshires, Hampshires and Landrace are raised. The pig barn shut down 1997 because of the abattoir closure.

ABATTOIR

A small meat processing plant, with a killing floor, licensed and regulated to domestic standard (i.e. ship product only within the NWT), was built in Hay River in 1996. The abattoir was shut down in the summer of 1997 mainly for political reasons. The processing plant was built to receive and keep animals for up to 4 days. The plant could handle “any four-legged animal, wild or domestic”.

FEED MILL

Another agricultural venture in the NWT is the Feed Mill located near Hay River. This operation was both successful and profitable. The success was partly due a subsidy on imported raw feed products for animals in food production taking place in the NWT. This subsidy was in place until the end of 1995. At it's peak the feed mill supplied Northern Poultry, Northern Pork, Eggs R Us and a number of smaller operations. The Feed Mill employed 7 people.

Currently the feed mill is still in operation at a reduced capacity.



Photo 16: Feed Mill

STABLES

Northcountry Stables is located just outside of Yellowknife. There are about 18 horses currently living at the stables. They have a heated indoor riding ring and stables so they can operate year round. Northcountry Stables has two outdoor paddocks and an outdoor jumping ring along with 45 minutes of trails for riding. The stables own most of the horses but they also board private horses, take people on trail rides, as well as give riding lessons and clinics.

In Fort Smith there is a horse-riding arena enclosed with mesh screening so the insects do not bother the horses or riders during lessons. Private and semiprivate lessons are available at the arena and horses are available to rent for trail rides.

VETERINARY SERVICES

There are veterinary services offered in Hay River, Fort Smith, Fort Simpson, Yellowknife and Iqaluit.

MARKETING AND PUBLIC AWARENESS

SCHOOL PRESENTATIONS

Representatives from the Territorial Farmers Association visit the grade three classes on a yearly basis in Hay River, NT. The students learn what agriculture is, where food comes from and the benefits of agriculture in the Northwest Territories. A program is being developed that can be used in schools both in Hay River and other communities of the Northwest Territories.



Photo 17: Grade 3 students touring Paradise Valley

FALL FAIRS

Fall fairs occur annually in many communities throughout the Northwest Territories. The events showcase different products that are both for display and for sale through farmers markets that coincide with the fall fairs. The categories generally include; garden produce, flower arrangements, preserves, baking, arts, crafts, and family projects. Fall fairs provide an excellent opportunity to inform the general and traveling public about current agricultural activity in the north and upcoming events.

TRADE SHOWS

Trade shows are used by the industry as a tool to inform both potential growers and producers of the benefits of a strong industry in the NWT. They are also used as an educational tool for the general public to better understand the needs and benefits of agriculture. Trade shows are open to the general public and are generally well attended.



Photo 18: Fort Simpson Fall Fair, 1999

GARDEN TOURS

Yellowknife's "Loved Gardens" is an annual garden tour and tea presented by the Yellowknife Ski Club. Interested public tour a number of unique gardens throughout the city then meet up at the *Prospector*, a local restaurant, for strawberry shortcake and tea.

NEWSLETTER

To broaden awareness of agriculture in the north and to share information, the Territorial Farmers Association produces and distributes a quarterly newsletter. It is sent to TFA members, MLA's and a number of municipalities and libraries in the Northwest Territories. The newsletters are also used as an information tool at trade shows and fall fairs.



Photo 19: "water garden" in Yellowknife, August 2000

ANNUAL TFA AGRICULTURAL SEMINAR

The annual seminar brings together Territorial Farmers Association members from all over the NWT to listen to guest speakers on a number of different topics from manure management to flower bed design. The seminar also keeps members up-to-date with on going projects that other members and the Territorial Farmers Association are undertaking.

AGRICULTURAL CONFERENCES

These conferences help north of sixty producers stay in touch with what is happening in agriculture in Canada and the world. The participants are required to write up a report of the conference and submit it to the Territorial Farmers Association. TFA members have recently attended the Alberta Horticultural Congress and Prairie West Trade Show and the 14th Annual Commercial Berry Production School in Edmonton, Alberta.

Canadian Young Farmers Forum

The Canadian Young Farmers Forum was established in 1997 to facilitate the exchange of information between young and beginning farmers from across the Country.

Representatives from the Territorial Farmers Association have attended Canadian Young Farmers' conferences in Ottawa (1998), Regina (1999), and Quebec City (2000). A young delegate was also sent to the World Congress of Young Farmers in Orlando, Florida (2000).

Circumpolar Agriculture Conference

Circumpolar Agricultural Conferences are designed to provide valuable information to delegates from Iceland, Greenland, Finland, Denmark, Russia, Norway, Sweden, Alaska, the Yukon and the Northwest Territories. The conference provides a chance for these countries to compare situations and work together toward common goals, solutions and technology to ensure sustainable agriculture in the circumpolar environment.

The first Circumpolar Agricultural Conference was held in Whitehorse in September 1992. The conference was initiated by members of the Yukon Agricultural Association and focused on information sharing between circumpolar countries. In 1995 the second Circumpolar Agricultural Conference was held in Tromo, Norway and the 1998 conference was in Anchorage, Alaska. Iceland is planning on hosting the fourth Circumpolar Agriculture Conference in 2001.



Photo 20: Dairy farm in Alaska during circumpolar conference in 1998

INDUSTRY ASSOCIATIONS

TERRITORIAL FARMERS ASSOCIATION

The Territorial Farmers Association (TFA) was formed in 1973 for the purpose of providing a representative organization for all agricultural producers in the Northwest Territories. The TFA receives funding from Agriculture Canada through the Canadian Adaptation and Rural Development Fund (CARD). The TFA CARD initiative is to promote development and expansion of the agri-foods production sector of the Northwest Territories economy and to assist the NWT agri-foods industry in becoming competitive, self reliant and progressive as it integrates into the national economy. To help in achieving this, the TFA undertakes activities under the following areas:

- Production development, food safety and quality,
- Innovation and marketing,
- Environment sustainability, and
- Rural and human resource development.

The TFA has established a CARD Steering Committee to establish priorities and administer funds. The CARD Steering Committee consists of five voting members from the TFA and two ex-officio, non-voting representatives, one member from each of the Federal Government and the Government of the Northwest Territories.

HORTICULTURAL SOCIETY

The Hay River Horticultural Society was formed in 1978. The objectives of the society are:

- To illustrate the features of a high quality product, and aid in teaching the methods and techniques to achieve high quality;
- To encourage creativity and originality;
- To encourage efficient and effective use of products grown or available in the home;
- To aid in developing personal pride in doing quality work and in demonstrating skills to others.

Communities in Bloom is one of the events put on by the Horticultural Society in cooperation with The Town of Hay River. It is a Nation wide program to recognize



Photo 21: Sunflower

community participation in projects involving beautification, heritage and environmental awareness. Hay River, Fort Simpson, Fort Smith and Yellowknife have all been participants in the Communities in Bloom program. Each community is judged on a municipality's success in meeting objectives that involve all levels of the Community; beautification by planting trees, flowers, etc., and by improving the appearance and upkeep of public and private green spaces. The objectives also include the environmental awareness of the community by judging tidiness, composting and the care and protection of heritage properties.

INUVIK COMMUNITY GREENHOUSE

The Inuvik Community Greenhouse is the most northerly greenhouse in Canada and is an effective model for northern communities. The idea of creating a community greenhouse in Inuvik was initiated when the Grollier Hall Arena was scheduled for demolition. The Community Gardening Society of Inuvik (CGSI) approached Aurora College, who owned the arena, and requested permission to turn it into a greenhouse.

Work on the greenhouse began in January 1999 with the first plants sprouting last June. The greenhouse consists of seventy-five community plots, which are used by Gardening Society members for a small annual fee. A number of plots are available free of charge to local charities and Elder's Homes, and the remaining plots are rented out to local residents to plant vegetables and flowers as they wish. A second-floor smaller commercial greenhouse is being set up to grow bedding plants and hydroponic vegetables. As the CGSI is a not-for-profit organization, the bedding plants and vegetables are sold only to cover operating and management costs.



Photo 22: Inuvik Community Greenhouse, Summer 2000

FEDERAL GOVERNMENT SERVICES AND PROGRAMS

DOMINION EXPERIMENTAL STATION AT FORT SIMPSON

In 1945, J.A. Gilby established an agricultural research station on an island off Fort Simpson at the confluence of the Liard and Mackenzie Rivers. Research was conducted on crop rotation, summer fallowing, tillage, fertilizers on wheat, windbreaks, irrigation, and pesticides. Animal husbandry included one Yorkshire sow and one boar raised on a diet of local grains, vegetables, and minerals. Poultry trials were also included in the station's research program.

As market garden endeavors developed, trials were conducted in 1953 on the growing of fruit trees such as apple, crab apple, plum and cherry. Tomatoes had been successfully grown at the station during 1965/66. In addition to the Fort Simpson site, experimental plots were established at Yellowknife, Inuvik, and other locations.

Research emphasis shifted in 1965 to the potential of cattle production in the South Slave Lowlands. Other research activities included calculating the number of frost-free days required for cool-season crops, and the establishment of trials for vegetables, cereals, forages and soft fruit. The Fort Simpson research station became a sub-station of the Beaverlodge Research Station in 1965. Unfortunately, due to insufficient agricultural activities in the NWT, the station closed in 1970.

CANADIAN ADAPTATION AND RURAL DEVELOPMENT FUND

The Canadian Adaptation and Rural Development (CARD) Fund was established by the Federal Government in 1995 to "help the sector and its rural communities adapt, on a sustainable basis, to changes in domestic and international circumstances and to major government agricultural policies".

The Northwest Territories' share for the CARD I initiative for 1997-1999 was \$150,000. The NWT share for the CARD II initiative for 2000-2003 is \$311,289. The money is in the form of a grant and is distributed by the CARD Steering Committee to worthy projects throughout the Northwest Territories.



Photo 23: Receiving CARD I funding

TFA PROJECTS FUNDED THROUGH CARD

➤ Compost Demonstration Project

A Composting Demonstration Project was initiated in 1998 to help local sawmill and chicken barn owners manage their waste. Different ratios of chicken manure and sawdust were combined to determine a suitable mixture to produce viable compost. A successful combination of sawdust to manure was not determined due to the experiment being brought to a halt sooner than expected because of a land lease problem. The need to have a scientific partner was recognized and Olds College, where a similar experiment is being conducted, was contacted for assistance. The project is to be repeated during the summer 2000.



Photo 24: Checking temperatures at the compost demo project

➤ Soil Sampling – Fort. Resolution, Deninu Kué First Nations

The Edjericon Bison Ranch and Hook-Lake Bison Recovery Project are both located in the Fort Resolution area. Shipping food from the south to feed the two hundred and fifty bison is very costly. Information from soil sampling could be used to determine whether it is more economical to ship goods from the south or to produce forage crops for the bison and vegetables for the people of Fort Resolution locally.

A soil-sampling project was initiated in 1999 in the Fort Resolution area to determine soil type, fertilizer prescription and the crops best suited to the sampled areas. The feasibility of growing fleet meadow brome, boneal fescue, crested wheat grass, climax timothy, spredor II alfalfa, carrots, potatoes, turnips, cabbage, lettuce, tomatoes, peas and beets was then examined.

➤ Horsemanship Clinic

The first NWT Horsemanship Clinic was held in Fort Smith in September 1999. There were six participants in the clinic and two instructors from Fairview College. Stable Management and options to consider before building a barn were discussed as well as various health issues.

➤ Garden Soil Sampling

The TFA offered garden soil sampling to interested members. Soil samples were tested for nitrate, phosphorous, potassium, sulfate, pH and electrical conductivity. All soil samples were sent to Northwest Labs in Lethbridge, Alberta. Copies of the results remain on file at the TFA office.



Photo 25: Soil sample taken at Kakisa Community Garden, June 2000

➤ Hook-Lake Bison Recovery Project

The impact of the Hook Lake Wood Bison Recovery Project on the residents of Fort Resolution is currently being studied. The commercial potential of the project is being documented and the potential for extending production systems to be incorporated into the economic base of the area is being evaluated.

WESTERN AGRI-FOOD INSTITUTE (THINK TANK)

The Western Agri-Food Institute (Think Tank) was developed and set up by the Western CARD Councils – the Manitoba Rural Adaptation Council, the Saskatchewan Council for Community Development/Canadian Adaptation Rural Development Saskatchewan; the Agriculture and Food Council of Alberta; the British Columbia Investment Agriculture Foundation; the Territorial Farmers Association and the Yukon Agriculture Association. It is also supported by a wide range of people, firms and organizations interested in objective research and analysis in the agriculture, agri-food and rural development sectors. Think Tank was created to study emerging economic, social, and environmental trends that could have an impact on the agricultural sector. Data collected by the Institute is disseminated through electronic and printed documents, as well as through conferences and workshops to members of the Institute and all stakeholders in the industry.

ARTISAN FOODS LTD

Artisan Foods Ltd. is a corporate entity under the operating ownership of the Hay River Metis Development Corporation, and linked with the Territorial Farmers Association. It was proposed that Artisan Foods would take over the operation of Western Arctic Foods

that was in business over the period of February 1996 to July 1997. Artisan Foods' core business will be fresh, frozen, and processed pork, beef, and wild game.

Artisan Foods would be in the business of processing and distributing pork, beef, and wild game products and specialty processed meat items. It would serve the retail, institutional, food service, camps, barges, fishing lodges, and distributor markets in the Northwest Territories. The product line would include fresh pork and beef. Sausage and smoked meat products, prepared and cooked meats, and a variety of other meats (chicken, turkey, caribou) as well as customers demand.

BUSINESS PLAN FOR A TERRITORIAL AGRICULTURAL RESEARCH INSTITUTE

This business plan was developed in 1998 for the purpose of raising agricultural knowledge for the local producers by converting theoretical knowledge to the practical. The report contains an introduction, objectives and scope, a review of selected relevant centers, the proposed development for NWT agricultural research, and a Business Plan for agricultural Research in the NWT.

NWT GOVERNMENT SERVICES, PROGRAMS AND DOCUMENTS

RESOURCES, WILDLIFE AND ECONOMIC DEVELOPMENT

As one of the larger government departments, Resources, Wildlife and Economic Development (RWED) have a broad spectrum of responsibilities. Along with protection and management of our northern environment, RWED is also responsible for developing economic opportunities to support the people of the North.

HISTORY BOOKLET

“A History of the Development of Agriculture in the NWT” is a 46-page booklet prepared for the Territorial Farmers Association by Cardinham Text Creations in Hay River, NWT. The booklet is a summary of major agricultural operations in the NWT in the 20th century and shows the progress of agriculture in the north. The Department of Economic Development and Tourism approved funding to print the booklet in 1995. Two thousand copies were printed in color.

NORTHWEST TERRITORIES AGRICULTURAL POLICY (DRAFT)

A draft NWT Agricultural Policy was created by the Territorial Farmers Association in January 1995.

The purpose of the policy is to:

- Encourage agricultural development;
- Ensure that development is sustainable and in accordance with sound conservation practices;
- Release agricultural land for sale or lease in a fair and equitable manner;
- Preserve agricultural land; and
- Ensure that competing land uses are fully considered.

Continued government support for the agricultural industry is ensured by the policy and it is to be evaluated after the end of the third year, and no later than the fifth year of implementation.

ECONOMIC IMPACT OF THE PROPOSED NWT AGRICULTURAL POLICY

The Economic Impact of the Proposed NWT Agricultural Policy on the government of the Northwest Territories was prepared for the Territorial Farmers Association in 1997. The document reports findings of an analysis completed to determine the economic impact of the proposed policy on the total NWT economy (Nunavut included).

WESTERN ARCTIC FOODS

Western Arctic Foods (WAF) operated the Hay River abattoir from February 1996 to July 1997. Western Arctic Foods’ objective at the time was to assist the development of the agriculture industry in the South Slave region through the purchase of domestic and

wild game meats made available in the area. WAF processed these meats for the institutional, restaurant, hotel, and general public consumers within the Northwest Territories.

Western Arctic Foods was an integrated meat company comprised of livestock receiving, dressing, cooling, cutting, boning, curing, blending, stuffing, and packaging operations. It produced over 80 products under the trade name of Western Arctic Foods. In July 1997, the company ceased operations due to financial losses.

At the start of operations in February 1996, WAF had to establish a market for the products produced. Over the next 18 months, WAF managed to develop a market for its fresh, frozen, and processed meats. Sales achieved a peak of over \$50,000 per month, but WAF was unable to consistently keep sales at this level.

WAF diversified into many other areas such as fish, chicken, and custom processing. Due to the lack of a comprehensive costing system, the profitability of these activities could not be estimated.

ENVIRONMENTAL GUIDELINE FOR AGRICULTURE WASTE MANAGEMENT

The purpose of the Environmental Guideline for Agriculture Waste Management is to establish clear and consistent waste management standards for the Northwest Territories' intensive livestock and agriculture industry.

In 1999 The Environmental Protection Service of the Department of Resources, Wildlife and Economic Development in conjunction with the Territorial Farmers Association developed the guideline by taking into consideration northern conditions. Its intentions are to:

- Increase awareness of agricultural waste management in the Northwest Territories
- Provide direction for the management of wastes from intensive livestock facilities, and
- Protect the environment.

JOINT FEDERAL TERRITORIAL PROGRAMS

HORTICULTURE RESEARCH AND DEMONSTRATION PROJECT 1989

The New Crop Development Research Program was started in the summer of 1989. The program involved seven members from the Territorial Farmers Association and the Hay River Dene Band. They decided that variety vegetable trials would be done on cole crops and root crops in the South Slave area. Hay River and Fort Smith participated in the project.

Two plots, one in Salt River and one in Paradise Gardens, were planted with cole crops and the remaining six plots located in Salt River, Fort Smith, the Hay River Corridor and the Hay River Reserve were planted with root crops.

NORTHWEST TERRITORIES AGRICULTURE RESEARCH AND DEMONSTRATION PROJECT 1992

The agricultural Research and Demonstration Project was initiated in 1992 to continue and expand the work started under the Horticultural Research and Demonstration Project and to also allow work in Animal Husbandry and Forage Crops. The Project was comprised of a number of small projects initiated, developed and implemented by individual farmers. The project was comprised of a steering committee composed of four people from NWT Economic Development and Tourism and the Territorial Farmers Association. The committee was responsible to review and approve projects, monitor projects throughout project duration, collect project reports, collate, write and publish the final report.

Individual projects were limited to \$5000.00 funding which represented not more than 70% of project cost. Total project cost was actual receipted expenditures and did not include cooperator's labor.

Five projects were successfully conceived and executed:

1. Alfalfa Trials in Fort Smith
2. Breeding Honey Bee Queens in Fort Smith
3. Netting Evaluation in Fort Smith
4. Saskatoons in Hay River
5. Strawberry Trials in Fort Smith.

NORTHWEST TERRITORIES AGRICULTURAL RESEARCH AND DEMONSTRATION PROJECT 1994

The NWT Agriculture Research and Demonstration Project in 1994 was comprised of a number of small projects initiated, developed and implemented by individual farmers. The projects were administered by a steering committee that was responsible to review and approve projects.

Individual projects were limited to \$2500.00 funding which represented not more than 70% of project cost. Total project cost was actual receipted expenditures and did not include cooperator's labor.

The five projects conducted were:

1. Forage Trials at Fort Smith (using two different deeding methods)
2. Forage Trials at Fort Smith (growing horse feed)
3. Forage Trials at Fort Providence
4. Forage Trials at km 10, Hwy. #1
5. Forage Trials at Hay River

GREEN PLAN

The objective of the Green Plan is to facilitate the implementation of a number of environmentally sustainable activities that are aimed at conserving and enhancing the natural resources that agriculture uses and shares. It also works to minimize the impact of the agri-food sector on environmental resources required by non-agriculture sectors and protects itself from the environmental impacts caused by other sectors and factors external to agriculture.

GENESIS PROJECTS UNDER GREEN PLAN

➤ Northwest Territories Waste Management Options Phase I

In response to concerns over the expansion of agriculture production in the Northwest Territories, the Territorial Farmers Association and the Territorial Government recognized the need to develop waste management guidelines relative to the handling of livestock wastes, crop residues and by products of the primary and secondary food processing industries. A steering committee, consisting of representatives from the Territorial Farmers Association and the Departments of Economic Development and Tourism, Health and Renewable Resources from the Government of the NWT, was struck to oversee the development of the guidelines.

➤ Northwest Territories Agricultural Waste Management Options Phase II: Evaluation and Recommendations

Phase II formally evaluates agricultural waste management alternatives potentially applicable to the NWT and passes recommendations on how to implement the most desirable options within a regulatory environment suitable to NWT purposes.

The TFA reached a consensus that there will likely be a phase 3 of the Waste Management Study that will concentrate on developing an agricultural code of practice for the north. Phases 1 and 2 were funded under the Green Plan, which ended March 31, 1997.

THE FEDERAL-PROVINCIAL-TERRITORIAL AGRI-FOOD AWARENESS COMMITTEE (FPT)

Agriculture ministers established the Federal-Provincial-Territorial Agri-food Committee in 1996 with a general mandate to improve the public's understanding and awareness of

the agri-food sector. The FPT is comprised of government representatives who have a responsibility for agri-food awareness in their respective jurisdictions. One of the objectives of this committee is to identify and develop awareness programs designed to increase the profile and understanding of the Canadian agri-food sector, and where appropriate, also implement partnerships with key industry and other stakeholders.

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