



YUKON AGRICULTURE

2008-2009 Interim Report
"An Assessment of Leading Indicators"



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Government of Yukon, Department of Energy, Mines and Resources, Agriculture Branch
Agriculture and Agri-Food Canada

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PHOTOS

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List of acronyms

AAFC	Agriculture and Agri-Food Canada
ACAAF	Advancing Canadian Agriculture and Agri-Food
AIAC	Agriculture Industry Advisory Committee
AUM	Animal unit months
BSE	Bovine spongiform encephalopathy
CAAP	Canadian Agricultural Adaptation Program
CAIS	Canadian Agricultural Income Stabilization
CFIA	Canadian Food Inspection Agency
COABC	Certified Organic Association of BC
CSA	Community supported agriculture
CWD	Chronic wasting disease
EGDD	Effective growing degree days
FDP	Farm Development Plan
GDD	Growing degree days
GE	Genetically engineered
GF	Growing Forward
GoOFY	Growers of Organic Food Yukon
PARC	Pacific Agri-Food Research Centre
WWOOF	World-Wide Opportunities on Organic Farms
YAA	Yukon Agricultural Association
YESAA	<i>Yukon Environmental and Socio-economic Assessment Act</i>
YESAB	Yukon Environmental and Socio-economic Assessment Board

INTRODUCTION

From the roof top gardens of Dawson at the turn of the 20th century to today's computerized air seeders, Yukon's agriculture industry continues to evolve. As elsewhere in Canada, it is an industry that is built on the hard work of farm families that have seen an opportunity to generate income and realize a wonderful lifestyle. In turn, these families help to reduce food imports, build the economy, and diversify the options for work in our communities. As in the past, Yukon farms continue to play an important role providing fresh, healthy products for local consumption.

There are many challenges facing agriculture in Yukon. The local industry continues to be relatively small, growing conditions often require novel solutions, operating costs are high and local markets can be limited. Nonetheless, despite these challenges, Yukon has a vibrant, diverse agriculture and agri-food industry. Local farmers are expanding their market share of fresh food products and supplying local retailers and farmers' markets here.

This report provides a description of the agriculture industry in Yukon for 2008 and 2009. In assessing the state of the industry, this report examines a range of indicators, from land availability to industry associations.

The target readership of this report includes farmers, agricultural land applicants, other government departments, the general public, and non-government organizations such as agriculture industry associations.



Green peppers and eggplant in Dawson City.

INDUSTRY HIGHLIGHTS OF 2008-2009

January 2008 – Yukon Wildlife Damage Compensation Program announced.

February 2008 – Master Gardener course offered in Faro, the first Master Gardener course to occur outside of Whitehorse.

March 2008 – Implementation of the Agriculture Policy Framework (APF) Continuity agreement, extending program delivery until the Growing Forward agreement can be finalized.

April 2008 – Transition from the Canadian Agriculture Income Stabilization program to the new Business Risk Management program suite including producer savings accounts (AgriInvest) and a margin-based income stabilization program called AgriStability.

April 2008 – Definition of Yukon Grown adopted.

May 2008 – Haines Junction agriculture subdivision land lottery phase 1 completed with three lots released.

Summer 2008 – Community gardens open in Dawson City.

July 2008 – Yukon signs the Growing Forward multi-lateral framework agreement with Canada at the annual Ministers conference in Quebec City, increasing agriculture development funding by 80% over the previous five year APF agreement.

December 2008 – Completion of the Multi-Year Development Plan for Yukon Agriculture 2008-2012. The report outlines goals, objectives and strategies for development of the Yukon agriculture and agri-food industry over the next five years.

Winter 2008/2009 – Cooperative equipment purchased by the Yukon Agricultural Association including a John Deere 1590 No-till Drill, a Leon 375 Manure Spreader, and an Aerway C-Flex Aerator.

April 2009 – Roll out of the Canada-Yukon Growing Forward programming which includes new programs designed specifically for Yukon agriculture.

July 2009 – Elk hunting permitted to help reduce crop predation in the Takhini Valley.

June 2009 – Canadian Organic Standards implemented. The Organic Production Systems General Principles and Management Standards and the Organic Production Systems Permitted Substances Lists are updated in December 2009.

Summer 2009 – This summer will be remembered as a great growing season followed by a mild winter. Average July temperature was two degrees above normal.

AGRICULTURE LAND AVAILABILITY

“Providing farm land for farmers.”

AGRICULTURAL SUITABILITY

Less than two per cent of the Yukon’s 483,450 square kilometres is suitable for agriculture development because of limitations of geography, climate and soils.

The Yukon is part of the Canadian Cordilleran region, which is characterized by mountainous terrain. Soil-based agriculture is limited to major river valleys including those of the Yukon, Takhini, Pelly, Stewart and Liard. For the most part, agriculture activity is located on river sediments. In the Takhini and Dezadeash valleys, typical soils suitable for agriculture are formed on silts and clays deposited by glacial Lake Champagne. Agricultural land use in these valleys is divided into a number of uses with 19% in dryland crop and 7% in irrigated lands.

The Yukon has a sub-arctic continental climate with temperatures reaching as high as 30°C in the summer and as low as –50°C in the winter. The average frost free period ranges from 93 days in the Watson Lake area to 21 days at Haines Junction. Frost free periods also vary substantially from year to year at any location. Long hours of daylight during the summer promote rapid growth and compensate, to some extent, for the cooler summer temperatures experienced at a latitude north of 60°.

Average annual precipitation ranges from about 20 centimetres west of Whitehorse, to more than 40 centimetres in Watson Lake. Southwest Yukon, where most agriculture production occurs, lies within the rain shadow created by the St. Elias and Coastal mountains. This area is subject to droughts between April and July, which is a serious problem for crop germination.

Yukon soils are generally deficient in nitrogen and phosphorous. Potassium and sulphur abundance is often dependent on local geology and is difficult to predict. Since testing started in 1984, more than half of the soils tested by the Yukon Agriculture Branch have been deficient in potassium. The most common micronutrient deficiencies are boron and magnesium. Soils throughout the Yukon are low in organic matter, and salinity has been identified as a problem in localized areas. Permafrost is found throughout Yukon, varying from sporadic discontinuous in southern agriculture areas, and increasing to extensive discontinuous at the northern extreme of agriculture activity in the territory.

OBTAINING LAND FOR AGRICULTURE

There are two methods for obtaining land for agriculture: through private sale or through the Crown. Private land prices vary depending on the proximity of the property to Whitehorse. Through the later part of this decade, titled agriculture lands within 30 minutes from Whitehorse have been valued over \$3,000 per acre while land from 30 to 60 minutes from Whitehorse has been valued around \$2,500 per acre. The price throughout the rest of the territory has been approximately \$600 to \$1,000 per acre based on estimates from the Multiple Listing Service.

Yukon is one of the few places in Canada where Crown land can be obtained for agriculture purposes. To qualify for Crown (government) land, an applicant must be a Canadian citizen or permanent resident of Canada, must be at least 19 years of age, and must have lived in Yukon for at least one year prior to the date of application.

The process begins with an application to the Agriculture Branch of the Department of Energy, Mines and Resources. The application must describe the intended uses of the land and the applicant must submit a Farm Development Plan (FDP) within 60 days of making the land application. The FDP is a part of the application and must be approved by the Agriculture Branch. Applicants must also declare that they will retain their Yukon residency for the duration of any agricultural agreement for sale that may result.

Since the program started many years ago, the total amount of land that has been disposed of by the Yukon government for agriculture use is 12,180 hectares in 303 dispositions. Land dispositions are dominantly around the Whitehorse area, with over 70% of these lands within 60 kilometres of the capital city.

REVIEWS OF AGRICULTURE LAND APPLICATIONS

The Yukon *Environmental and Socio-economic Assessment Act* (YESAA) lays out a comprehensive arms-length-from-government environmental assessment process. A YESAA review includes input from governments (including First Nations), interest groups and the public. Agricultural land applications are submitted to the Yukon Environmental and Socio-economic Assessment Board (YESAB) for determination of the environmental and socio-economic effects, including cumulative effects, of the proposed project. Review by YESAB is generally triggered by the section of the assessment regulations pertaining to clearing land using self-propelled power-driven equipment (Section 13.12). A YESAB review results in a recommendation that the proposed project either proceed, proceed with terms and conditions, or not proceed.

The recommendation from YESAB is considered by the Director of Agriculture who is the Delegated Decision Maker for the Yukon government on applications for agriculture land dispositions and irrigation projects. The Director of Agriculture accepts, rejects or varies (accepts with changes, usually minor) the YESAB recommendation. A decision by the Director of Agriculture that the project proceed results in a letter of offer to the applicant and following a survey of the applied-for parcel, the land is released to the applicant under

an agreement for sale. If an irrigation project proceeds, a water licence and/or land use permit is granted.

The agreement for sale is a development contract and the appraised value of the parcel becomes the purchase price. Under the Vision of Yukon Agriculture: 2006 Yukon Agriculture Policy, every dollar of approved development work completed by the applicant results in one dollar of the purchase price being forgiven. The total expenditure on approved agriculture developments must equal the appraised market value after any development costs incurred by the Yukon government are subtracted. If the applicant meets all the obligations of the agreement for sale within seven years or less, the Agreement is considered complete, and title issued.

Table 1. Agricultural land applications, agreement for sales and titles issued.

	2005		2006		2007		2008		2009	
	#	ha	#	ha	#	ha	#	ha	#	ha
Agriculture land applications	38		25		25		25		16	
Agreement for sales	10	507	10	416	8	347	12	352	11	416
Agriculture titles issued	10	528	7	249	13	437	13	638	13	614

*Agriculture land applications refer to spot land applications, including grazing, and successful lottery applicants.

AGRICULTURE LAND PLANNING

The 2006 Yukon Agriculture Policy places an emphasis on the release of agriculture land through planned agriculture developments. Planned development is preferred because it:

- provides for the coordinated use of infrastructure such as roads and electricity;
- places less demand on services such as school busing;
- allows for the orderly planning of future services; and,
- allows agriculture to be developed in accordance with regional and sub-regional plans where they exist.

Planned agriculture allows basic infrastructure (roads and power) to be established prior to land sales. The public, municipalities and First Nations will continue to be part of the planning process for planned agriculture areas. Background work is being carried out for further planned agriculture areas in several different locations.

Table 2. Agreement for sales from planned areas.

Year	Total sales		Sales from planned		Number from planned to total	Area in ha from planned to total
	#	ha	#	ha		
2005	10	507	2	11	20%	2%
2006	10	416	0	0	0%	0%
2007	8	347	4	79	50%	23%
2008	12	352	3	30	25%	9%
2009	11	416	0	0	0%	0%

Agriculture land availability

Planned agriculture lots prior to 2009 were sold through a public land lottery process. In 2009, there was no public land lottery because the Agriculture Branch was switching to a new planned land application process that would allow the applicant with the best business plan to be successful. In 2008, there were three lots released in May in the Marshall Creek Subdivision near Haines Junction. Since 1996, there have been seven public land lotteries, resulting in 21 agriculture lots released for a total of 325.7 ha.

Planned Agriculture Dispositions over the years:

- May 2008 – 3 lots released in the Marshall Creek Subdivision, Haines Junction
- October 2007 – 4 lots released in the Marshall Creek Subdivision, Haines Junction
- July 2005 – 2 lots released along Gentian Lane, Golden Horn
- December 2003 – 1 lot released in West Dawson
- February 2001 – 2 lots released in Upper Liard
- January 1998 – 2 lots released in M’Clintock
- November 1996 – the first agriculture land lottery, with seven agriculture lots released in the Takhini Hotsprings Agricultural Subdivision

AGRICULTURE RESERVES AND LAND INVENTORY

The continued focus on planned agriculture development areas requires that land suitable for agriculture must be identified, created and released.

There is a high demand found primarily in close proximity to communities. The Agriculture Branch has used the local area planning process to identify agriculture lands during planning and plan review. Approximately 130 ha of land have been identified west of Dawson. Another approximately 130 ha of land will be proposed for Marsh Lake planning area.

There are a number of parcels under Agriculture Reserve in several areas including Upper Liard, McGregor Creek, Marshall Creek, near Champagne, near Cowley Lakes, along Gentian Lane, along the Takhini Hot Springs Road, and in the Ibex valley.

There is also interest in central Yukon, which is a large area of low demand. The climate in central Yukon is capable of reliably growing grains and for that reason will be an important growth opportunity for Yukon agriculture.

IMPROVED LAND UTILIZATION OF EXISTING AGRICULTURE PARCELS

The Yukon government is anticipating a 50% increase in improved land utilization on existing agriculture parcels by 2016. Sixty hectares in 2008/09 were applied for through the Growing Forward Underutilized Land Initiative. This program provides up to \$250 per hectare to improve a previous field that is now in forest regrowth. Changes in land utilization will be examined in the 2011 census.

- 2006 census – 2,658 ha in crop
- 2011 census – projected 3,323 ha in crop
- 2016 census – projected 3,987 ha in crop

SUBDIVISION OF TITLED AGRICULTURE PROPERTIES

The 2006 Agriculture Policy provides for limited subdivision of agriculture land. In 2007, the *Subdivision Act* was amended to provide statutory authorization for the homesite subdivision process.

A one time subdivision is allowed when a farmer who is living on their farm, but is no longer interested in farming, wishes to subdivide their parcel so he and/or she can stay living there and pass the rest of the parcel on to someone else who will farm it. This allows for the continued utilization of developed agriculture land beyond the current landowner's interest. By December 2009, the Land Planning Branch had received 13 applications for homesite subdivision. It was estimated in 2007 that there were 55 agriculture properties that met the requirements for homesite subdivision with an additional 10 properties becoming eligible in each subsequent year. To date, all the interest in agriculture land subdivision is in the Whitehorse region.

GRAZING PROGRAM

“Providing leases on public lands for grazing.”

To meet the grazing needs of Yukon livestock owners, the Yukon government grants grazing rights on designated areas of public land to eligible applicants. Grazing rights are given to the applicant in the form of a grazing agreement. Table 3 summarizes grazing program activities from 2008-2009.

Applications for grazing agreements are submitted to the Agriculture Branch for initial screening for conflicts with wildlife, existing land and resource uses, other land applications and aboriginal claims. The Agriculture Branch inspects the application area and assesses its suitability for grazing by determining the grazing capacity.

If the land included in the grazing application is suitable for grazing, further review will be required. Most grazing applications are subject to a YESAA assessment by the appropriate YESAA-designated office. The designated office will assess the project proposal and make a recommendation to the Yukon government. If no major conflicts are identified through the review process and there is adequate graze, a grazing agreement can be issued. In cases where no fencing is required as part of the grazing management plan, the application will not be subject to YESAA and will instead undergo a review by the Agriculture Branch.

For each grazing agreement, the Agriculture Branch prepares a grazing management plan, which outlines management practices required for sustained grazing. Agriculture Branch personnel monitor grazing agreements throughout the tenure of the agreement to ensure compliance with grazing management plans.

Table 3. Summary of grazing program activities 2008-2009.

Number of...	2008	2009
Grazing agreements under administration	39	39
Hectares under grazing agreements	11,341	10,383
Animal Unit Months* under grazing agreements	2,413	2,260
Grazing applications received	4	1
New grazing agreements granted**	1	1
Average size of grazing agreements	291 ha	266 ha
Smallest grazing agreement area	11.1 ha	7.3 ha
Largest grazing agreement area	1,286 ha	1,286 ha

* Animal Unit Month (AUM) is the amount of forage consumed by an adult cow or horse in one month.

**Not all grazing applications are approved in the year that they are received.

GROWING SEASON CONDITIONS

“Monitoring microclimates for variability.”

Climate is often the limiting factor to production in Yukon. Air temperature and precipitation are monitored in various regions of Yukon to determine the extent to which climate limits production. Over the years, the comparisons of different agriculture areas in Yukon have shown interesting contrasts between regional climates.

The regions can be broadly divided into four areas:

- Whitehorse plateau and surrounding area, where the majority of the producers and consumers are located.
- Central Yukon basin, which is known to have a warmer climate. This area includes Dawson, the first agriculture area to be developed in Yukon.
- Southwest Yukon, Haines Junction, which was home to Agriculture Canada’s research station from 1944 to 1968. This research station evaluated agricultural suitability for the area.
- Southeast Yukon, Watson Lake, which is another suitable agriculture area of Yukon and has a warmer climate and more precipitation than Whitehorse.



Potato harvest at Yukon Grain Farm, 2008.

2008

The growing season for 2008 was marred by cold summer weather. The yearly analysis of the climate data collected from weather stations across the territory showed below-average growing season temperatures. The central Yukon basin and Watson Lake agriculture regions saw a reduction in the number of crop options compared to normal growing seasons. Haines Junction and the Whitehorse area proved to be cool through the summer resulting in severe limitations that restricted the range of crops to forages, improved pastures and cold-hardy vegetables. June and July had temperatures well below the 10-year average. An in-depth evaluation of historical monthly average temperatures found that June, with an average temperature of 10.5°C in 2008, had not been this cool since 1987.

On the plus side, the territory received above-normal rainfall in 2008, which improved dryland production and reduced the need for irrigation. However, similar to past years, the bulk of precipitation arrived in July and August with very little precipitation in May when it is needed most. The Mayo area received the greatest amount of rainfall with heavy rain events in July and August resulting in well above-average accumulated precipitation.

2009

The 2009 growing season was a great success in Yukon terms. This growing season had the warmest recorded temperatures since 2004. More frost-free days and a longer growing season provided excellent conditions for research and demonstration projects. The Whitehorse airport weather station reported 340 more effective growing degree days in 2009 than in 2008. Above normal temperatures led to crop and forage yields comparable to farms south of 60°.

Precipitation for the 2009 season was slightly less than the 10-year average. In seasons with average or below-average precipitation, access to water and appropriate irrigation equipment becomes critical to crop production.

SUMMARY

The central Yukon and Watson Lake areas have shown the best agroclimatic capabilities. Central Yukon is warmer, providing good growing conditions allowing for a wider variety of crop options. The higher level of rainfall in Watson Lake decreases irrigation demands which may make production more viable. Crop productions in the Whitehorse and Haines Junction areas have climatic restrictions that have been overcome by the resourcefulness of agriculture producers and an awareness of the climate in these areas.

PRODUCTION

“Yukon agriculture by the numbers.”

With a few exceptions, Yukon agriculture production is generally small scale and geared towards the local market. Direct sales are the norm, although there are a number of agriculture products available on local store shelves and through the vibrant community markets. There are also exports of bedding plants, nursery stock, sod and hay to Alaska, and occasional sales of velvet antler from game-farmed elk into international markets.

The majority of farming activity occurs around the Whitehorse area because of access to markets and off-farm income. Unfortunately, Whitehorse experiences a cooler summer climate than most other areas of Yukon making some crops difficult to produce.

Information on production is obtained through data from Statistics Canada, with whom the branch collaborates for the national census of agriculture which occurs every five years. The next census will occur in 2011, with data available early in 2012. The Agriculture Branch also conducts formal surveys through the Yukon Bureau of Statistics, such as the 2009 meat processing working group survey, and informal surveys through producer groups, such as one the Fireweed Community Market conducted in 2009.

Of note for 2008-2009, is the purchase of cooperative equipment with the assistance of Growing Forward programs. These purchases have contributed to input cost reductions and improved efficiency in a number of production sectors.

PRODUCTION HIGHLIGHTS FOR 2008-2009 BY SECTOR

Livestock

Yukon livestock are grown for various reasons. There are animals such as hogs, elk, cattle, bison, goats and sheep that are slaughtered for meat; animals such as horses that are used for work; and animals such as cattle and goats that are used for dairy. Elk velvet antler is harvested when prices are high, and wool is sheared from goats and sheep, contributing to the economic return from these animals.

Cattle

According to the 2006 Census of Agriculture, there were 220 cattle and calves in the territory; these numbers were similar in 2008-09. The beef cattle industry has had slow growth over the years. Some producers bring in calves in the spring and slaughter in the fall and a few have cow/calf operations. The Yukon Multi-Year Development Plan recommends research into perennial forages that will lower the cost of production, and improvements in meat processing infrastructure as ways to stimulate cattle production and provide better access to market.

Hogs

Hog production in Yukon is a small industry, with seven farms reporting 160 hogs in the last census. Most operations bring in weaner pigs in the spring and butcher them for direct sales in the fall. Imported feed costs are cited as a barrier to the economics of production.

Horses

The 2006 census indicated that there were 629 horses in Yukon on 58 farms. This is a decrease from the last census and is also lower than the 2003 survey of horse owners, which indicated there were 1,750 horses in the territory. The difference in numbers is accounted for by horses that were not located on farms surveyed as part of the 2006 census, but rather were work horses for outfitting or pleasure horses used by guides and equestrians.

Elk

As a result of Chronic Wasting Disease being discovered in Saskatchewan in 2000, the elk industry downsized from an export industry in breeding stock and antler velvet. The industry has now stabilized and is predominantly focused on meat sales with some sale of antler velvet. By the end of 2009, there were 62 game-farmed elk in Yukon on four farms.

Bison

One farm in Yukon operates a cow-calf operation with approximately 150 wood bison. These animals are mostly sold as meat, but they also provide high quality breeding stock. The majority of animals are marketed directly from the farm, although the mobile abattoir has been used on occasion to process animals for banquets and special events.

Goats and sheep

There are a number of goats in Yukon, used for both dairy and fibre. Seven farms reported 113 animals in the last census and these numbers increased in 2008-09. One farm expanded its goat herd to provide for increased milk and cheese production, and a new farm specializing in lamb and wool production came on line. A wool room for shearing was funded through Growing Forward to assist with fibre collection.

Llamas

This exotic, domestic livestock sector started to develop in the mid-1990s and has remained relatively static since. Five farms reported 21 animals in the 2006 census. The animals are raised for breeding and fibre, as well as for pack animals.

Poultry

• Broilers (meat birds)

In 2008 and 2009, there was no poultry abattoir operating; therefore, the broiler industry operated from the farm-gate. In the 2006 Census of Agriculture, there were sales of 9,698 kilograms of meat representing about 3,750 chickens. Fourteen farms reported

chickens. There has been a decrease in the number of birds since the last census because of the drop in production in central Yukon. The potential market is high as Yukoners consume approximately 500,000 birds per year. Poultry meat is commonly marketed locally at \$4 per pound, or for certified organic meat, up to \$6 per pound. The cooperative purchase of an uninspected mobile poultry processing unit has helped to offset the closure of the Partridge Creek abattoir and reduced the work load associated with on-farm slaughter.

- **Turkeys**

In the last census, nine farms reported raising turkeys. Total production was 1,933 kilograms from about 500 birds. Several turkey producers used the mobile processing equipment in 2008-09 and, as a result, production has increased. Turkeys were only available through farm gate sales as no inspected facilities were in operation during this timeframe.

- **Layers (eggs)**

Overall egg production has decreased as a result of reduced production in central Yukon. According to the 2006 census, there were 3,886 layers producing approximately 75,000 eggs with 23 producers reporting. Small laying flocks are scattered throughout Yukon, supplying communities through direct sales and farmers markets. Fresh, local eggs typically sell for \$4 per dozen or more.



Nielsen Hay Farm.

Field crops

- **Grain**

The production of cereal grains (barley, oats, wheat) in Yukon is primarily limited by the market and, in the case of wheat, by climatic conditions. Barley and oat grain production has increased in the Whitehorse area to supply feed for livestock. Currently, the barley and oat acreage is approximately 120 acres across Yukon. An increase in the livestock sector, especially hogs and chickens, would lead to increased demand for local grain production, which would increase grain acreage. Wheat production is possible in central Yukon and could provide the wheat that is necessary to make a feed mix with appropriate nutrients and vitamins for livestock rations.

- **Greenfeed**

Greenfeed involves the production of oats, and sometimes barley and fall rye, as forage crops. This has always been an important component of fodder for Yukon livestock.

Oats are most often used and harvested in bundles or bales. The number of acres in oat greenfeed was 1,300 at the time of the 2006 Census of Agriculture and was similar for 2008-2009.

- **Forage crops**

Hay production is the single largest agriculture product grown in Yukon, both in terms of acreage and value. Over 1,800 hectares (4,400 acres) of hay are produced annually. According to the recently completed Multi-Year Development Plan, it is estimated that this sector yields \$1.8 million in gross annual revenue and represents close to 75% of seeded crop lands. Yukon weather for 2008 did result in poor growth for some crops, although the response to the cooler temperatures did not always result in large yield losses. Hay crop yields in the Whitehorse area were not affected by the cold June and July as observed by reported yields and were on par with much warmer summers. The cool-season hay fields fared well because of the warm start to the season, a cooler summer and above-average precipitation which resulted in less plant stress. In 2009, the higher than normal temperatures caused a challenge for forage producers who didn't have access to irrigation.

YUKON AGRICULTURE BRANCH

“Working for Yukon’s farmers.”

The Yukon Agriculture Branch was established on April 1, 1986, with a staff of two full-time employees and one part-time employee. With the growth of the agriculture sector over the past decade, the branch has expanded to seven permanent employees, including a Director, Administrative Assistant, Agriculture Development Officer, Agrologist, Agriculture Research Technician, Agriculture Land Coordinator and an Agricultural Lands Technician. There is also one auxiliary Grazing Management Coordinator and one auxiliary on-call Meat Inspector.

STAFF

The Director is responsible for the overall management and administration of the branch. Duties include developing policy and regulations, developing and managing the budget and finances, administering industry programs, supervising staff, and meeting with the public, both in the office and on their farms.

The responsibilities of the Administrative Assistant include administrative support to the employees of the Agriculture Branch, its activities and programs, and to the Agriculture Canada office. This person greets the public when they arrive at the branch office, and assists them or refers them to the proper staff member. The Administrative Assistant also plays an active role in planning conferences, seminars and other extension functions.

The Agriculture Development Officer is responsible for monitoring agreements for sale to ensure compliance with development requirements, farm extension services, supervision of territorial meat inspectors, and coordination of pound keepers to provide livestock control services. This person also assists land applicants with the development of farm management plans, and attends committee meetings addressing land-related issues.

The Agrologist is responsible for the design and management of the Agriculture Branch research and demonstration program, farm production and marketing-related extension work, as well as publication of the branch quarterly newsletter, InFARMation, and yearly research reports. The Agrologist also works throughout the year on educational seminars, courses and conferences for growers and producers.

The Agriculture Research Technician assists in research plot establishment, maintenance and harvest, as well as data collection, summarization and database compilation. This person helps in developing and implementing new research projects, and is responsible for setting up and monitoring test site weather stations. The agriculture technician also assists in writing research reports, state of the industry reports and the branch quarterly newsletter, InFARMation.

The Manager of Agriculture Land Resources receives, processes and tracks agricultural and grazing applications, and maintains a database of the applications. This person also administers grazing lease agreements, in co-operation with the Grazing Management Coordinator, and agricultural agreements for sale, in co-operation with the Agriculture Development Officer. Other work includes working with the Agriculture Lands Technician in receiving and processing land inquiries and applications; providing support in all agriculture land matters and planned agriculture; administering and providing support in agriculture projects under YESAA assessment; preparing agricultural and grazing agreement documents; raising title to completed farm developments; and providing other support and assistance to the Agriculture Branch.

The Agriculture Land Coordinator receives, processes and tracks agricultural and grazing applications, and maintains a database of the applications. This person also administers grazing lease agreements, in co-operation with the Grazing Management Coordinator, and agricultural agreements for sale, in co-operation with the Agriculture Development Officer. Other work includes working with the Agricultural Lands Technician in receiving and processing land inquiries and applications and providing support in all agriculture land matters and planned agriculture, administering and providing support in agriculture projects under YESAA assessment, preparing agricultural and grazing agreement documents, raising title to completed farm developments, and providing other support and assistance to the Agriculture Branch.

The Agriculture Lands Technician evaluates planned agriculture areas for suitability and proposes sites for development. This person provides technical support to the Agriculture Land Program by evaluating agricultural capability of land applications, and deals with specific land application issues on a case-by-case basis, as well as providing expertise in soil-related extension activities.

The Grazing Management Coordinator develops conditions of lease for grazing leases, and identifies and evaluates plant species and natural vegetation communities on grazing agreement lands. This person is also responsible for range improvement programs, development (conditions of lease) and administration of grazing management agreements, and related extension work.

The Meat Inspector is responsible for inspecting meat and poultry during slaughtering in the abattoir, and checking for disease and quality to ensure consumer safety. This person also advises livestock producers on animal health and nutrition, and production of quality meats.

RESEARCH

“Field testing innovative ideas north of 60°.”

CROP PRODUCTION RESEARCH

The Agriculture Branch has maintained a research farm at the Gunner Nilsson and Mickey Lammers Research Forest since 1988. The initial thrust was to test a wide variety of crops for suitability and to act as a demonstration site for Yukon agriculture. Over the years, the site has continued crop variety assessments along with evaluations of soil conservation techniques, soil enrichment practices, and irrigation optimization. Today, research and demonstrations continue in the key areas of variety evaluation and demonstration, soil enhancements and management, technologies and management practices, and economics of production.

Generally, research and demonstration projects fall into more than one of the key areas and are therefore reported individually. It should also be noted that not all the research is done at the research farm; projects have been conducted in partnership with other farms and in various areas of Yukon. The partnerships take advantage of on-farm expertise and the variation in sites gives insight into the diverse climates in Yukon and the potential that may exist in other areas beyond the research farm.



Frost seeding of spring wheat.

Results for research and demonstration trials can be found in the yearly Yukon Agriculture Research and Demonstration progress reports. Copies can be obtained online at www.agriculture.gov.yk.ca or at the Agriculture Branch front counter.

The 2008 Yukon Agriculture Branch research and demonstration projects were a continuation of demonstrations and trials from previous years as well as new trials. The research focused on the evaluation of biodegradable mulch, a two cut system for forages, raspberry orchard production, oilseed production for biodiesel and the analysis of yearly climate data.

In 2009, the Agriculture Branch's research and demonstration program continued with many of the projects from 2008, such as forage demonstration of various grasses and legumes, biodegradable mulch evaluation, oilseed production for biodiesel evaluation, raspberry input management and economics of raspberry production, and a new wheat and pea variety trial.

Forage: The forage demonstration is an ongoing project at the Agriculture Branch research farm. A variety of forage species have been planted and yearly assessments of winter survival and total yields recorded. Results show that although Carlton smooth brome may not be the most winter hardy, it continues to provide superior yields compared to other forages in this trial. One-cut versus two-cut systems were also evaluated; yields from each system varied significantly depending on the forage. In 2009, peas were added to the forage mix with three varieties included in the trial. The varieties were mixed with oats and also seeded stand alone and produced over 10 tonnes per hectare. The meadow brome and creeping red fescue both yielded well in the double-cut system.

Biomulch: A biodegradable mulch trial was conducted to evaluate a new micro perforated biodegradable and compostable mulch film from BioTelo™. It is a non-toxic, cornstarch-based raw material that is promoted as being easily degradable. The trial evaluated the irrigation needs of the mulch and results showed the microperforation did allow for the transmission of overhead irrigation and rainfalls to the soil. This biodegradable mulch appeared to be a good choice for row crops, providing all the benefits of a standard mulch, yet decaying in the field so it does not present a disposal concern.

Biofuel: In 2006, a four-year research project was started to determine if Yukon can produce its own biofuel. It was determined that using oilseeds would be the best fit, in large part because they are more suited to the cooler Yukon climate. Two varieties of canola (*Brassica rapa* and *Brassica napus*) and two varieties of flax (*Linum usitatissimum* and *Camelina sativa*) were used.

The 2008 growing season provided valuable insight on the year-to-year suitability of oilseed production in the Whitehorse area. The cold season severely affected oilseed production resulting in poor to no maturity and reduced yields compared to the previous two years. *Camelina sativa* and *Brassica rapa* showed signs of marginal maturity,

although the combination of low yields and poor quality would not warrant a harvest on a large scale.

In 2009, the production was much higher than the other years. *Brassica napus* performed well at all sites, producing between 0.13 to 3.66 T/ha of seed. Most of the numbers were well above the Canadian averages for canola yield, with 11 samples above 2 T/ha. The *Camelina sativa* and *Linum usitatissimum* varieties did favourably in central Yukon at a site near McCabe Creek.

Raspberry: The raspberry orchard assessment, which started in 2005, continued to evaluate input management and the economics of production. Three varieties of raspberries were used: Kiska which is an Alaskan variety, and Souris and Boyne which are similar and were grouped together for the trial. The raspberry production in 2008 was affected by environmental stresses due to the cold growing season and frequent frosts. The total harvest was significantly lower than the yields in previous years. Even with the lower yield, the 2008 results showed a possibility for a profitable raspberry orchard using a u-pick operation. A high tunnel row cover may have been useful in protecting the plants from frost damage.

The 2009 season showed favourable results, producing high yielding Kiska raspberries. Using a u-pick business model and keeping expenses low showed an opportunity to run a profitable raspberry orchard in south-central Yukon. The high tunnel row cover had a positive effect on the raspberry production, producing berries sooner in the season and close to optimum yields. The irrigation system provided the orchard with the required water and fertilizer. As with previous years, a lower fertilizer rate appears to yield better results.

Wheat and pea: Wheat and pea trials were added in 2009 to explore different management practices and new varieties. The wheat yields at the central Yukon site were much greater, and of superior quality, than the wheat grown in the Whitehorse area. A second year trial will be initiated to see if further trends can be determined from the different seeding dates and varieties.

The field peas grew very well with consistent maturity and yields that were higher than expected. At both the research farm and central Yukon sites, regardless of variety, yields were over 4.4 T/ha. The central Yukon site had the highest yields, with the Polstead variety at 6.5 T/ha.

GOVERNMENT OF CANADA RESEARCH FUNDING

Advancing Canadian Agriculture and Agri-Food Program (2008/2009)

The Advancing Canadian Agriculture and Agri-Food (ACAAF) program was a five-year, \$240 million initiative that helped to position Canada's agriculture and agri-food sector at the leading edge to take advantage of new opportunities. Launched in April 2004, ACAAF brought an innovative, industry-led approach to funding projects at the national, multi-regional and regional level. 2008/2009 was the final year for this program.

The objectives of the ACAAF program were to:

- expand the industry's capacity to respond to current and emerging issues;
- position the sector to capture market opportunities;
- actively and continuously engage the sector to contribute to future agriculture and agri-food policy directions; and,
- integrate sector-led projects tested and piloted under ACAAF into future government or industry initiatives.

In Yukon, the ACAAF program was delivered through the Yukon Agricultural Association with a budget of \$256,000 per year. Projects funded by the program in 2008 and 2009 are listed in Table 4.



Tomatoes grown near Dawson City.

Table 4. Advancing Canadian Agriculture and Agri-Food Program Project Funding 2008 and 2009

Projects	Funding (\$)
Growers of Organic Food Yukon Legume Culture Study (Years 4 and 5)	46,713
Oilseeds Production For Biodiesel Potential In Yukon	9,525
Survey of Mesofauna in Yukon Soils	7,158
Bluebell Gardens Perennial Research Study	9,908
Great Green Growers Cooperative	39,263
Yukon Multi-Year Development Plan Meat Processing Working Group	13,913
Meat Processing Infrastructure Study	15,375
Dairy Feasibility Study Terms of Reference	4,195
Study on Use of Farmed Fish Byproducts as Pig or Poultry Feed	2,640
Study on Elimination of Fish Feed Taint in Red Meat	3,000
Market Assessment on Need for Agriculture/Veterinary Laboratory Services in Yukon	6,140
Yukon Multi-Year Development Plan Agriculture Research Committee	8,586
Gathering Wild Wisdom – Medicinal Food Plants of Yukon	34,000
Fireweed Community Market Base Survey	8,745
Total	209,161

CANADIAN AGRICULTURAL ADAPTATION PROGRAM (2009)

The Canadian Agricultural Adaptation Program (CAAP) is a five-year (2009-2014), \$163 million program with the objective of facilitating the agriculture, agri-food and agri-based products sectors' ability to seize opportunities, to respond to new and emerging issues, and to find and pilot solutions to new and ongoing issues in order to help it adapt and remain competitive.

The CAAP is a successor to the ACAAF program and will continue to support industry-led initiatives at the national, regional and multi-regional levels. CAAP will fund sector-identified projects that align with priorities identified by industry and/or government.

The Yukon Agricultural Association (YAA) signed the agreement in October 2009 to deliver CAAP in Yukon. YAA has established the YAA CAAP Council which will be responsible for administration of the program, evaluation of project proposals and project funding decisions. The Council is currently developing a priority plan that will provide direction for Yukon CAAP. No projects were approved for funding under CAAP in 2009 due to the late implementation of the program.

EXTENSION SERVICES

The Agriculture Branch provides a wide array of extension services to assist Yukon producers. By and large, the most sought-out service is the advice of the branch's knowledgeable staff. They can provide up-to-date information and advice on a variety of topics including:

- land acquisition;
- farm management;
- production;
- marketing;
- conservation techniques;
- new farm technology; and,
- farm financing.

Consultations are done through several channels, from emails to on-farm visits.

The Agriculture Branch continues to rely on research, both at the research farm and at a number of participating Yukon farms, to provide Yukon-specific advice to farmers. Through the extension services, a link is created between this research and its on-farm application. The chapter on research (see page 17) provides more information on the work being carried out by the Agriculture Branch.

In addition to ongoing research, the branch has a number of other information resources available to farmers. Agricultural publications, books and magazines are accessible through the Energy, Mines and Resources library, located on the third floor of the Elijah Smith Building.

Since 1987, the quarterly bulletin, InFARMation, has been produced by the Agriculture Branch to keep producers up-to-date on industry activities and events. The newsletter contains articles on crops, production services, livestock husbandry, industry trends and research.

The branch also continues to run an extensive soil, feed and water testing program. Commercial farmers can submit samples for analysis. Nutrient analysis is conducted on contract with labs from Alberta or Manitoba. Between 2008 and 2009, over 200 samples were sent for feed analysis to Exova Labs in Edmonton, Alberta. The feed, soil and forage testing service is one of the branch's most popular programs. Farmers can determine if their soils, feeds or water sources are deficient in any important nutrients and take corrective action.



Agriculture field day 2009.

SEMINARS AND SYMPOSIA

The North of 60° Agriculture Conference is the main agriculture seminar held every year. It is organized by the Agriculture Branch and co-sponsored by Agriculture and Agri-Food Canada. This seminar provides an opportunity for local producers to share their experiences and hear from experts on a variety of topics.

In 2008, the North of 60° Agriculture Conference focused on management techniques to reduce energy requirements on the farm. Optimizing fertilizer and diesel use is critical for maintaining a profitable farm. Add to this the management of forages and animals and maintaining good health of each helps the bottom line. Speakers included Dr. Surya Acharya on overwintering forages, Cliff Hanna on Horse Dentistry, and Kent Lamoureux from Sturgeon Valley Fertilizers on fertilizer requirements for forage and other crops.

In 2009, the North of 60° Agriculture Conference focused on adding value to the farm. The main workshop was the Canadian Farm Business Management Council's Value Plus workshop with Gary Morton. The workshop investigated ways for producers to diversify production, add value customers will appreciate, and capture new markets, better pricing and a stronger future.

Other topics in 2009 included a Young (and New) Farmer's Forum, which examined the challenges and opportunities that exist in Yukon agriculture and highlighted the tools available to new/young farmers. In addition, Meriam Karlsson, a Professor of Horticulture at the University of Alaska Fairbanks, gave a talk on northern greenhouses. She was joined by local greenhouse experts Roy Ness and Bob Sharp.

MASTER GARDENER COURSE

The Master Gardener course was offered in both 2008 and 2009. In 2008, it was offered outside of Whitehorse for the first time, with the Yukon College campus in Faro hosting the course with resounding success. The course began in 1997 with help from the University of Alaska Fairbanks Cooperative Extension Service (<http://www.uaf.edu/ces/>). Each year, local gardening experts and Agriculture Branch staff instruct 25 experienced northern gardeners. Students are provided with the training and are asked to commit 40 hours of volunteer time to the community to educate other gardeners. A society of master gardeners was formed in 2003 to help connect the graduates and other gardeners.

MARKETING

“Spreading the word of Yukon Grown.”

Over the past two years, the marketing of Yukon agriculture products has been predominantly through face to face sales, industry associations, and the Agriculture Branch.

During 2008 and 2009, the Agriculture Branch, in partnership with industry, developed a new Yukon Grown logo. The logo helps consumers identify locally produced products and takes advantage of the “buy locally” and “local food” movements in promoting Yukon products. Farm products can be identified using the Yukon Grown logo as long as they meet the Yukon Grown Guidelines as follows:

For livestock production, Yukon Grown is defined as livestock or the meat or meat products derived from livestock that were born and raised in Yukon, and/or have spent a minimum of 51% of its life in Yukon and/or has lived in Yukon for no less than one complete year.

For crop production, Yukon Grown is defined as plants or plant material and the products derived from these plants that originated from a Yukon source and/or were imported from an outside source and grown in Yukon for no less than 51% of its life cycle and/or is a plant that continues to grow and be nurtured in Yukon for no less than one complete year.

The Agriculture Branch developed marketing materials for the Yukon Grown logo, including stickers, bags and tattoos.



The branch also continues to market Yukon agriculture products through the InFARMation newsletter published four times a year and distributed throughout Yukon by free subscription.

In addition to the efforts of the Agriculture Branch, over the past two years some of the best marketing has occurred at the community markets, both in Whitehorse and Dawson City. Other smaller community fairs have also taken place during 2008-2009. The Watson Lake Fall Fair has been an annual event in the community since 1994. Other fall fairs during this time were held in Carmacks, Mount Lorne, Dawson City and Faro.

FOOD SAFETY AND FOOD QUALITY

“Ensuring the best in Yukon-grown food.”

A number of food safety related projects occurred in 2008 and 2009. These projects focused on the continued support of the mobile abattoir and funding for applicable projects through Growing Forward. The Food Safety Strategies Initiative and the Biosecurity Risk Prevention and Mitigation Initiative are key components of the Growing Forward program to fund food safety and quality issues.

The Agriculture Branch, in cooperation with Agriculture and Agri-Food Canada and with funding from Growing Forward, continues to maintain and operate the mobile abattoir providing slaughter, inspection and monitoring services. In each year, 2008 and 2009, the operations and maintenance budget for the abattoir was \$30,000.

Table 5. Recent slaughter numbers in the mobile abattoir.

	Elk	Bison	Beef	Goat
2008	3	8	18	
2009	9	1	28	1

DISEASE MONITORING

The Agriculture Branch works with other government departments and industry to monitor animal and plant diseases. During 2008 and 2009 there were a limited number of plant diseases identified. Yukon appears to avoid some of the devastating late blight issues that growers in southern areas face.

Due to the space afforded by the local farms, animal populations are generally in good health. As part of disease monitoring, the Agriculture Branch oversees the national Chronic Wasting Disease (CWD) program for Yukon cervids. In 2003, the Yukon government implemented both a Mandatory Chronic Wasting Disease Surveillance Program and a Voluntary Chronic Wasting Disease Certification Program. These programs provide a framework for CWD monitoring and assurance to the national and international markets that Yukon has no CWD in game-farmed cervids. Testing from 2001-2009 shows that Yukon game-farmed elk are CWD free. During 2008 and 2009, the Agriculture Branch spent \$21,075 on Ribbon Branding and CWD testing.

Plant disease concerns should be brought to the attention of the Yukon Agrologist at (867) 667-5838 or toll free at 1-800-661-0408, ext. 5838. Animal disease concerns should be brought to the attention of a local veterinarian.

INFRASTRUCTURE DEVELOPMENT

“Strengthening agriculture infrastructure.”

Over the past two years, infrastructure work has primarily focused on increasing meat processing and inspection capacity within Yukon.

The Yukon government provides inspected slaughter services to southern Yukon red meat producers through the mobile abattoir facility. The U.S.-built Featherlite Fifth Wheel was custom designed for Yukon conditions and ensures all territorial regulations and health guidelines are met. It provides slaughter, inspection and refrigerated transportation services for livestock including cattle, bison, hogs, elk, sheep and goats. The operation and maintenance of the mobile abattoir has been contracted to Art Lock of Whitehorse. As a former Yukon hog farmer and outfitter, he has slaughtering experience as well as the mechanical expertise to maintain both the fifth wheel unit and his own truck unit.

Producers and businesses interested in using the mobile abattoir’s services should contact Kevin Bowers at the Agriculture Branch. For those who have used the mobile abattoir, please make arrangements for slaughter services by contacting Art Lock at (867) 393-4978 or by email at lock@northwestel.net

In 2007, a cooperative of local producers purchased a Mobile Poultry Processing trailer with funding provided through joint federal-territorial funding. This set of equipment provides an important service to producers for the efficient processing of birds for the farm gate market. The value of this equipment has proven its worth as there has been an increase in birds presented for slaughter year over year since it arrived. Along with the



John Deere 1590 No-till Drill.

Infrastructure development

efficiencies that this equipment provides, members of the cooperative produced a food safety and operations manual. The food safety processes in the manual are now used as the standard when producers use this equipment for processing birds.

Also in 2008 and 2009, a number of pieces of equipment were purchased by the Yukon Agriculture Association with the help of Growing Forward funding. This equipment includes:

- a John Deere 1590 No-till Drill,
- a Leon 375 Manure Spreader, and
- an Aerway C-Flex Aerator and Valmar 1655 Applicator.

The bulk fertilizer bins, purchased in 2004 by the Yukon Agriculture Association, continue to be used at a number of locations in Yukon.

Work on identifying and developing priority infrastructure projects for the industry will continue in coming years. The Agriculture Branch continues to work on meat processing infrastructure requirements and is looking at options for a multi-use facility. As well, the Fireweed Community Market is determining its infrastructure needs and to this end conducted a survey of members in 2009. It is important to note that the Fireweed Community Market is close to being financially self-supporting.

ENVIRONMENTAL RESPONSIBILITY

“Promoting stewardship of agriculture lands and the surrounding landscape.”

The Agriculture Branch continues to support and promote environmental stewardship through a number of programs. It is also important to note the strong environmental ethics that many Yukon farmers have towards the land they work.

ENVIRONMENTAL AND FOOD SAFE FARM PLANS

Through Growing Forward, a number of beneficial management practices (BMP) are funded at a 50% cost share in order to promote environmental sustainability. Example projects include the storage and handling of fuels and pesticides, cross fencing, and crop protection. In order to access the funding to implement BMPs, producers must first complete an Environmental and Food Safe Farm Plan, a comprehensive questionnaire that identifies the potential agri-environmental risks that exist on one’s farm. By the end of 2009, 42 farms received the Environmental and Food Safe Farm Plan package with 26 farms having completed their plans.

In addition to offering the Environmental and Food Safe Farm Plan, the Agriculture Branch strives for responsible environmental stewardship through several other programs and processes.

UNDERUTILIZED LAND INITIATIVE

This program under Growing Forward provides up to \$250 per hectare to improve the utilization of existing titled farm land that was developed for agriculture use at one time and is in need of reclamation to make it productive again.

WILDLIFE DAMAGE PREVENTION PROGRAM

This program provides assistance to protect high-value crops and pasture lands from damage by wildlife. It provides funding to install approved wildlife fences or to use wildlife deterrents. This includes purchasing a guardian dog or hiring a contractor with herding dogs to herd wildlife away from crop areas to more preferred areas.

Table 6. Agriculture in the environment projects undertaken in 2008 and 2009.

Program	No. of projects	Funding (\$)
Environmental and Food Safe Farm Plan BMPs	12	55,066
Underutilized Land Initiative	9	34,300
Wildlife Damage Prevention Program	6	54,000
Total	27	143,366



Double walled fuel tank.

THE ENVIRONMENT AND AGRICULTURE LAND DISPOSITIONS

The Agriculture Branch strives to ensure key wildlife habitat is protected when land is accessed through the Agriculture Branch land program. Through the *Yukon Environmental and Socio-Economic Assessment Act* (YESAA), the Yukon Environmental and Socio-Economic Assessment Board (YESAB) provides a comprehensive review of the impacts development may have on an area, including input from local First Nations, affected stakeholders, heritage branch, wildlife managers and the public.

ECONOMIC DEVELOPMENT

“Strengthening Yukon’s economy through agriculture development.”

Yukon agriculture directly contributes to the economy through the purchase and sale of farm products, machinery and land, as well as through other transactions such as wages and processing fees. Agriculture also contributes to the Yukon economy by strengthening it through diversification. With the sector’s growth potential, agriculture could make increasingly significant contributions to our economy in future years.

In order to continue to strengthen the industry, a number of indicators are monitored including commercial viability and net income. It is anticipated that the agriculture industry will make a net positive contribution to the Yukon economy by 2016. A net positive contribution is calculated as total industry income being greater than total industry expenses. In the 2006 census, there was a total of \$4.1 million in gross sales and \$4.3 million in operating expenses; this will be reassessed once the 2011 census data is available.

COMMERCIAL VIABILITY OF FARMS

Using cost of production analyses and through the business planning programs offered through Growing Forward, farmers are able to identify and focus on business models that are commercially viable. Through the Business Planning and Advisory Initiative five applicants received funding to complete farm business assessments. Commercial viability depends upon a number of factors, including consistent production, access to finance, manageable costs, and access to markets.

Sector productivity is discussed in the section entitled Production (see page 11). It is anticipated that there will be 200% increase in the production and sales of Yukon-grown agriculture products by 2016. This trend will be analyzed when the 2011 census data is available.

- 2006 census – \$4.1 million in gross sales
- 2011 census – projected \$8.2 million dollars
- 2016 census – projected \$12.3 million dollars

ACCESS TO FINANCING

There are a number of avenues to access financing, from a line of credit at one of the local banks to loans from Farm Credit Canada. In June 2009, the federal government launched the *Canadian Agricultural Loans Act* (CALA) to help support farm financing.

ENABLING COMPETITIVE ENTERPRISES AND FARM DIVERSIFICATION

“Building a sustainable industry.”

HUMAN RESOURCE DEVELOPMENT

During 2008 and 2009, the Agriculture Branch delivered three programs under Growing Forward that provided learning opportunities and resources for Yukon producers and agriculture organizations to build capacity within the industry. Through these programs, the Agriculture Branch hopes to build a sector that is better equipped with the knowledge and resources necessary to succeed in an increasingly demanding and complex business environment. The programs will continue until the end of the Growing Forward program in March 2013.

Agriculture Training Program: This program provides support for the presentation of agriculture courses, seminars, workshops and conferences, both on-farm and in more formal, educational settings to develop the human resource capabilities of Yukon’s agriculture, agri-food and agri-based products industry. This program also provides support for individuals to attend agriculture courses, seminars, workshops and conferences.

Agriculture Internship and Mentorship Program: This program provides opportunities for established members of the Yukon agriculture and agri-food industry to hire new entrants to the industry as agricultural interns in their agri-business. It also provides new entrants into the industry with an opportunity to access agriculture and agri-food industry mentors.

Agriculture Education Program: This program provides educational resources for “agriculture in the classroom” activities and similar educational activities presented by agriculture organizations and supports the development of agri-based curriculum and communications materials for schools. In addition, the program provides funding for agriculture-related youth development and leadership programs and supports the development of agricultural communication tools, such as newsletters or websites.

Table 7. Human resource development projects, 2008 and 2009.

Program	No. of projects	Funding (\$)
Agriculture Training Program	8	21,677
Agriculture Internship and Mentorship Program	9	41,633
Agriculture Education Program	2	17,324
Total	19	80,634

ENHANCING AGRICULTURAL OPPORTUNITIES

Also in 2008 and 2009, the Agriculture Branch delivered four programs under Growing Forward's Enhancing Agricultural Opportunities to develop marketing activities and strategies, strengthen and support the diversification of Yukon agriculture, and assist industry development through investment in infrastructure, equipment and land. The initiatives help to support economic diversification and increase value-added processing within the industry, along with helping industry to identify and develop new market opportunities and in turn enable competitiveness and innovation within the sector.

Market Development Initiative (MDI): This initiative provides resources to investigate and capture new market opportunities and enhance the competitive capability of the industry. Activities include marketing and agri-food promotional activities, events and communication materials, market development strategies, and support for marketing organizations such as community farmers' markets and cooperative market facilities.

The most significant project supported under this initiative in 2008 and 2009 was the Fireweed Community Market. The market was established through funding from the Canada-Yukon Agricultural Policy Framework Program in place from 2005 to 2008, and continued to grow with support from the MDI. The market has now opened an office and "Yukon Made" store in Shipyards Park along with a cooperative commercial kitchen that can be used by Yukon food processors. The Fireweed Community Market expects to be fully self-supporting by the end of the Growing Forward Program in March 2013 and continues to negotiate with the City of Whitehorse for a permanent market location where Yukon producers can sell their products.

The MDI also supported Yukon agriculture industry participation in the Dawson City Gold Show in 2008 and 2009, the Lorne Mountain Community Association Wildwood Festival in 2008 and A Taste of Canadian Living – Yukon Style Cooking Show in 2009.

Agricultural Development Initiative (ADI): This initiative provides funding to develop agriculture projects that enhance regional economic development and contribute to sustainability in rural communities. Activities include the introduction of new agriculture technologies and processes, consultant services to provide professional, technical and analytical support, and activities to encourage the development and commercialization of Yukon agri-based or native country foods. This initiative also provides funding for agriculture infrastructure, equipment and facilities required to support agriculture or country food development.

During 2008 and 2009, the Yukon Agricultural Association (YAA) supported two major activities with funding under ADI. The first was the purchase of new fertilizer storage bins to expand YAA's existing program that allows producers to purchase fertilizer in bulk in order to reduce input costs. The second provided for the purchase of farm equipment that Yukon producers can access through the YAA equipment rental program. To date, a manure spreader, no-till drill, Aerway aerator and reversible plough have been purchased.

The YAA contracts with individual producers who are responsible for rental of the equipment as well as equipment maintenance, repair and storage.

Diversification and Value-Added Initiative (DVAI): This initiative is available to individual Yukon producers who want to diversify their operations to take advantage of market opportunities that will increase profitability on the farm. The program also provides assistance to further process or develop products that add value to primary agriculture products. The program encourages partnerships and alliances that improve the competitiveness and commercialization of the agri-foods sector. There was only one industry project supported by the DVAI in 2009 and it is expected that take up of this initiative will increase over the lifetime of the Growing Forward Program.

Business Planning and Advisory Initiative: The objective of this initiative is to provide assistance for individuals, farm groups, cooperatives and non-profit organizations to access consultant services to review past records and financial situations, discuss objectives, and help determine current options in meeting profitability goals. The initiative gives applicants up to three days of consultant services and results in each applicant receiving a business profile, a statement of assets and liabilities, a farm business ratio analysis, an income and expenses statement from the previous two years, projections, and other information related to the applicant's business. Five Yukon producers accessed this program in 2009.

Table 8. Enhancing agricultural opportunities.

Program	No. of projects	Funding (\$)
Market Development Initiative	7	82,541
Agricultural Development Initiative	8	188,344
Diversification and Value-Added Initiative	1	4,175
Business Planning and Advisory Initiative	5	29,478
Total	21	304,538

REDUCING BUSINESS RISK

“Working with farmers to build a stable business.”

During 2008 and 2009, Yukon producers had access to a suite of Business Risk Management programs delivered through Growing Forward. These programs are designed to help producers move beyond crisis management to long-term profitability and competitiveness. The main risk management programs accessed by Yukon producers in 2008 and 2009 were AgriInvest, AgriStability, and the Wildlife Damage Compensation Program.

AGRIINVEST

This program is designed as a producer savings account to help producers protect their margin from small declines. AgriInvest replaces the coverage for margin declines of less than 15%, which was previously covered by the Canadian Agricultural Income Stabilization (CAIS) program. The Yukon currently has seven people enrolled in AgriInvest.

AGRISTABILITY

This income stabilization program, together with AgriInvest, replaces the coverage previously provided by the Canadian Agricultural Income Stabilization (CAIS) program.

AgriStability is based on program and reference margins. A program margin is defined as allowable income minus allowable expenses in a given year, with adjustments for changes in receivables, payables and inventory. These adjustments are based on information submitted on the AgriStability harmonized form. A reference margin is defined as the average program margin for three of the past five years, with the lowest and highest margins being dropped from the calculation.

Of the applications made in 2008 and 2009, there were two payments made totalling \$16,617.

WILDLIFE DAMAGE COMPENSATION PROGRAM

This program was implemented late in 2007 to deal with concerns raised about the significant loss of improved pasture, damage caused by elk entering pastures and foraging on seeded crops, and wildlife mixing with livestock which could lead to potential disease transmission. Until the winter of 2006-07, individual elk and small groups of deer occasionally grazed in farmers' fields, usually during the fall and winter months. In December 2006, however, a group of approximately 100 elk, primarily cows and calves, returned to farmers' fields, remaining until April 2007. Wildlife damage to forage crops, seeded pastures and fences varies significantly from year to year, depending on the severity of winter weather conditions.

- 2008 – 2 claims for a total of \$9,300
- 2009 – 6 claims for a total of \$21,000

INDUSTRY ASSOCIATIONS

“Working with our partners.”

To help in decision making, the Yukon Agriculture Branch works closely with many groups of the agriculture industry, including industry associations, private individuals, agriculture committees and others interested in growing food in Yukon. This includes the Agriculture Industry Advisory Committee (AIAC), a group of appointed industry members that advise government on agriculture policies and programs. Members from the Yukon Agricultural Association, Growers of Organic Food Yukon, Fireweed Community Market and Game Growers Association are all a part of this committee.

There are a number of well-organized associations affiliated with Yukon agriculture: Yukon Agricultural Association, Growers of Organic Food Yukon, Yukon Game Growers Association, Yukon 4-H, Fireweed Community Market Society, and Yukon Food Processors Association.

YUKON AGRICULTURAL ASSOCIATION

“If you ate today, thank a farmer.”

The Yukon Agricultural Association (YAA) was incorporated as a non-profit society on May 24, 1974, for the purpose of fostering and promoting Yukon’s agriculture industry. The Association works closely with government and other interested groups to develop and advance policies and pursue goals supportive of agriculture and the needs and interests of its members. It has members around Yukon and an office in Whitehorse. YAA has been involved in the acquisition of a number of pieces of cooperatively owned equipment in 2008 and 2009.

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YUKON GAME GROWERS ASSOCIATION

The Yukon Game Growers Association supports and promotes the game farming industry. There are four active elk farms and one bison ranch in Yukon. The group is a member of the Canadian Cervid Council and also remains a member of the Alberta Elk Commission. In the past, elk and bison farmers in Yukon relied on marketing their animals as breed stock. Yukon is well-known for its quality genetics. However, due to international and national events outside of Yukon’s control, the markets for live game-farmed animals have diminished. There are key signs that the international market for velvet antler will recover to some degree, together with prospects of legislative changes on the horizon in other jurisdictions, thus increasing elk farming viability. Local game farmers have turned to

local meat sales to keep their operations afloat and to help offset the ever increasing feed costs.

There is a strong local market for lean game-farmed meat (elk and bison). Bison and elk meat is largely sold through farm gate sales. Many customers appreciate quality game meat that is low in fat, low in cholesterol and high in protein. There is still a local demand for the velvet antler product, which is sold at health food stores and pet stores in Yukon.

Many of the elk producers have reduced their herd size through meat sales and have decided not to breed their cows until markets return for live game-farmed animals.

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4-H YUKON

4-H is an international program for youth ages six to 20 years of age. It is dedicated to developing well-rounded, responsible, independent citizens. 4-H stands for head, heart, hands and health, which is the members' pledge to their club, community and country. The 4-H Yukon program began in 1981 in Whitehorse with the establishment of the horticultural and beef club. Today, 4-H Yukon oversees the activities of three main clubs, one each in Dawson City, Whitehorse and Watson Lake. The Whitehorse and Watson Lake clubs are structured as multi-clubs, which allow any number of projects to be pursued by members while still providing a central base where leadership skills are practiced.

FIREWEED COMMUNITY MARKET

"It's more than about good food."

The Fireweed Community Market, established in 2005, hosts a weekly market in Shipyards Park from mid-May to mid-September as well as seasonal and special events markets at other locations during the year. The express purpose of the group is to create "an enduring and cooperating community of people who wish to promote local production and consumption." The Fireweed Community Market has been instrumental in connecting producers and consumers and has continued to see an increase in the number of vendors along with increased consumer traffic.

During 2008 and 2009, membership was approximately 140 people. The market focused on improving services already offered. It also continued promoting local production through support for its members and participation in committee work, such as the Agriculture Industry Advisory Committee and round-table discussions at the North of 60° Agriculture Conference. As well, the market provided support for new endeavours such as the Potluck Community Cooperative and the potential conversion of the old Canadian Tire building into a community-owned, non-profit, mixed-use space.

Industry associations

Fireweed Community Market members have been invited to make local products available during the Yukon Wildlife Preserve open house, the Wildwoods Festival, the Olympic Torch Relay celebrations, Frostbite Music Festival, and the Rendezvous Revue.

The Fireweed Community Market currently rents kitchen, office and retail space in the Frank Slim building in Shipyards Park. The Yukon Made Store provides year-round sales for approximately 20 vendors, as well as library space for the Growers of Organic Food Yukon and a home for the Yukon Food Processors Association computer and Genesis database used to create nutrition facts panels for local food processors. Sales in the Yukon Made Store have been steadily increasing. Monthly sales in December were the highest yet, at over \$6,000. The Fireweed Market Kitchen has been used regularly to provide lunch to park visitors during the week, process value-added farm products, cater private and public events, as well as provide the opportunity for fundraising for the market on Canada Day and during Rendezvous.

The Outdoor Summer Market has seen a steady increase in the number of vendors with an excellent showing of hot food vendors as well as farmers, artists and craftspeople. There has also been a good increase in the presence of non-profit organizations participating in the Thursday markets. Response to the market has been overwhelmingly good from both vendors and consumers. By continuing to work together, and assist new vendors as they get introduced to the market community, the market can continue to improve the relationships between vendors and with the market consumers.

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YUKON FOOD PROCESSORS ASSOCIATION

The Yukon Food Processors Association, a non-profit organization, was formed October 15, 2006. Its membership represents all segments of the food and beverage industry including growers, processors, retailers and service suppliers.

www.processors.yukonfood.com

GROWERS OF ORGANIC FOOD YUKON

“To lead local and national communities towards sustainable organic stewardship of land, food and fibre while respecting nature, upholding social justice and protecting natural resources.”

Growers of Organic Food Yukon (GoOFY) is a Chapter of Canadian Organic Growers and has a diverse membership including certified organic producers, non-certified producers, educators and consumers. The membership shares the vision for sustainable, local and organic production, ensuring the protection of the environment and the health of people in this bio-region. GoOFY was first formed in January of 2003 to provide

an opportunity for farmers and gardeners interested in growing organically to share information and resources.

Members of GoOFY are active and share their expertise in the Fireweed Community Market Society, Yukon Agricultural Association, GE Free Yukon, Canadian Biotechnology Network, Poultry Growers Group, Pot Luck Co-op, Slow Food and various committees related to agriculture in the Yukon.

Members participate on various industry committees, such as the Growing Forward Project Evaluation Committee, AIAC, Meat Processors, and CAAP Council. GoOFY has also hosted speakers and produced several events to promote and educate about organic and local production. Growers of Organic Food Yukon has a permanent member and one alternate on the board of the Organic Federation of Canada.

There are currently about twenty members. Four member farms are certified organic and two are in transition as of the summer of 2009. The certifying agency for these farms is the Pacific Agricultural Certification Society (PACS) and all farms certified by PACS are members of the Certified Organic Associations of BC. As of June 30, 2009, all the certifying bodies use the Canadian Organic Standards.

GoOFY member farms raise a variety of livestock, poultry, hay, vegetables, herbs and bedding plants. Several members are part of Yukon Food Processors Association and produce processed products for sale in local stores and at the Fireweed Market. Three farmers process fibre from sheep, goats and alpaca into garments and yarn. Hides are also tanned and sold.

Meat chicken, eggs, turkeys, beef, goat and pork are sold by members at the farm gate. Goat cheeses are produced in Yukon's only certified cheese kitchen at Lendrum Ross Farm. These cheeses are sold at the Fireweed Market, at Alpine Bakery and to local caterers for special events.

Vegetables are sold to local stores, at the Fireweed Community Market and through Community Supported Agriculture and by u-pick.

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Celebrate Yukon Food: www.yukonfood.com

Agriculture Branch, Department of Energy, Mines and Resources:
www.agriculture.gov.yk.ca

Yukon Agricultural Association: www.yukonag.ca

