



Yukon Agriculture

State of the industry
2002-2004



YUKON AGRICULTURE

STATE OF THE INDUSTRY, 2002-2004

Government of Yukon, Department of Energy, Mines and Resources, Agriculture Branch

Agriculture and Agri-Food Canada, Research Branch

April 2005

Prepared by:

T. Hill

Agrologist, Department of Energy, Mines and Resources, Government of Yukon

D. Beckman

Director, Department of Energy, Mines and Resources, Government of Yukon

D. Lacroix

A/Agriculture Research Technician, Department of Energy, Mines and Resources,
Government of Yukon

V. Whelan

Manager Yukon and Northwest Territories, Market and Industry Services Branch,
Agriculture and Agri-Food Canada

ACKNOWLEDGEMENTS

The authors acknowledge the contributors who provided information about their programs and activities:

- Kevin Bowers: Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon
- David Murray: Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon
- Edward Lee: Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon
- Patricia Smith: Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon
- Scott Smith: Agriculture and Agri-Food Canada, Summerland
- Yukon Agricultural Association
- Growers of Organic Food Yukon
- Yukon Game Growers Association

Cover photos supplied by Photography Unit, Government of Yukon.

Front cover: (*top*) Barley crop and early potatoes, from the Yukon Grain Farm, owned by Steve and Bonnie Mackenzie. (*bottom*) Clear cut logging, Shallow Bay Road farm, owned by Tim Gregory and Stella Pidborochynaki.

Back cover: (*top*) Aurora Mountain Farm, owned by Tom and Simone Rudge. (*bottom*) Potato crop from Mackenzie farm.

For additional copies of this report please contact:

Agriculture Branch
Department of Energy, Mines and Resources
Government of Yukon
Box 2703, Whitehorse, Yukon Y1A 2C6
Phone (867) 667-5838
www.emr.gov.yk.ca/agriculture

CONTENTS

INTRODUCTION

Industry highlights for 2002-2004	1
---	---

THE AGRICULTURAL LAND BASE

Limits to Yukon agriculture	3
Yukon agricultural areas	3
Obtaining Crown land for agriculture use	4
Agriculture land applications	6
Agriculture land planning	8
Grazing program	8

PRODUCTION

Growing season conditions	10
Production overview	12
Production sectors	12
Livestock	12
Poultry	13
Field crops	14
Greenhousing	15
Vegetables and berries	16
Honey production	17

YUKON GOVERNMENT SERVICES AND PROGRAMS

Yukon Agriculture Branch	18
Research and demonstration	20
Extension Services	22
Policy initiatives	25
Agriculture Planning and Advisory Committee	26

INFRASTRUCTURE DEVELOPMENT

Abattoir	27
Veterinary Services	27
Farm capital, investment and benchmarks . .	27

JOINT FEDERAL-YUKON PROGRAMS

Agricultural Policy Framework	28
Canadian Agricultural Income Stabilization Program	29
Food Safety Transportation Incentive	30

FEDERAL GOVERNMENT SERVICES AND PROGRAMS

Agriculture and Agri-Food Canada	31
Agricultural Policy Framework Implementation Agreement	32
Canada-Yukon Industry Transition Program Agreement	32
Canadian Adaptation and Rural Development Fund	32
Agricultural Environmental Stewardship Initiative	34
Advancing Canadian Agriculture and Agri-Food Program	34
Canadian Food Inspection Agency	35
International Markets and Trade Team	36
Science and Innovation Team	37

INDUSTRY ASSOCIATIONS

Yukon Agricultural Association	38
Yukon Game Growers Association	38
Yukon 4-H program	39
Growers of Organic Food Yukon	41

MARKETING AND PUBLIC AWARENESS

Fall harvest fairs	42
Media coverage	42

APPENDIX 1

Publications	44
------------------------	----

List of acronyms

AAFC	Agriculture and Agri-Food Canada
ACAAF	Advancing Canadian Agriculture and Agri-Food
AESI	Agricultural Environmental Stewardship Initiative
ALARC	Agricultural Land Application Review Committee
APAC	Agriculture Planning and Advisory Committee
APF	Agricultural Policy Framework
ATS	Agri-Food Trade Service
AUM	Animal Unit Months
BSE	Bovine Spongiform Encephalopathy
CAIS	Canadian Agricultural Income Stabilization
CARD	Canadian Adaptation and Rural Development

CFIA	Canadian Food Inspection Agency
CSA	Community Supported Agriculture
CWD	Chronic Wasting Disease
CYIA	Canada-Yukon Implementation Agreement
CYITPA	Canada-Yukon Industry Transition Program
GOOFY	Growers of Organic Food Yukon
LARC	Land Application Review Committee
PARC	Pacific Agri-Food Research Centre
WOOOF	World-Wide Opportunities on Organic Farms
YAA	Yukon Agricultural Association
YESAA	Yukon Environmental and Socio-economic Assessment Act

INTRODUCTION

This report provides a description of agricultural programs, services and policies administered by the governments of the Yukon and Canada, as well as a summary of initiatives taken by the private and non-government sectors. The target readership includes farmers, agricultural land applicants, other government departments, the general public, and non-government organizations such as the Yukon Agricultural Association.

This report summarizes the agriculture sector's activities and developments during the 2002-2004 calendar years.

INDUSTRY HIGHLIGHTS FOR 2002-2004

- The Yukon Game Farm was offered for sale, prompting the formation of “Friends of the Game Farm,” a lobby group formed to seek government assistance to purchase the wildlife preserve for education and research purposes.
- On April 1, 2002, the Agriculture Branch was transferred from the Yukon government's Department of Renewable Resources to the Department of Economic Development. On April 1, 2003, the Agriculture Branch, along with Forestry and Lands, was included in the formation of a new section in the Department of Energy, Mines and Resources.
- The Yukon government signed the Agricultural Policy Framework Agreement with the federal government, bringing Yukon agriculture into the national suite of industry support and development programs.
- In June 2003, the Minister of Energy, Mines and Resources announced the formation of the Agricultural Policy Framework Agreement Advisory Committee, made up of agriculture industry representatives and designed to provide input on the development of programs relevant to Yukon agriculture.
- A survey of horse owners in the territory revealed a divided community on the topic of equine infectious anemia. The survey also reported that 72% of the hay purchased for horse feed now comes from Yukon farms.
- A voluntary chronic wasting disease certification program was developed in the Yukon to provide a higher level of confidence within the industry that Yukon game-farmed elk are free of the disease. One hundred percent of Yukon elk farmers joined the program.
- Mad cow disease was discovered in a single dairy animal on a northern Alberta farm, closing the American border to Canadian beef exports and throwing the national cattle industry into chaos.
- The Yukon government approved the offering of the Canadian Agriculture Income Stabilization program to Yukon farmers, signalling a long-term commitment to industry support in the Yukon.



The Bradley family receiving recognition for 50 years of farming in the Yukon.

- The Bradley family of Pelly Farm celebrated 50 years of farming in the central Yukon. In a ceremony on the farm in June 2004, Hugh Bradley was recognised by Environment Canada for keeping 50 years of weather data. In November 2004, he received the Commissioner's award for contributions to the development of Yukon agriculture.
- In September 2004, the Yukon sent 12 industry delegates to the 5th Circumpolar Agriculture Conference, in Umea, Sweden. This was the largest delegation of industry participants since the inaugural conference in 1992, in Whitehorse.

Between 2002 and 2004, 37 titles for agricultural land were issued, resulting in an increase of 1,179 hectares of titled Yukon agriculture land. This number of new titles is slightly above average, as a result of devolution of federal control over Crown land. Devolution occurred on April 1, 2003, making orders-in-council to transfer Crown land to the Yukon government no longer necessary.

The 2001 Canada census of agriculture reported that the Yukon farm sector is healthy and growing, now supporting 170 farms, with the average farm size increasing from 55 hectares in 1996 to just under 70 hectares in 2001. Land use practices are changing as well. On Yukon farms, over the past five years, there has been a 23% increase in land in crops and a 72% increase in natural land used for pasture. Contrary to the national trend, which saw a 25% decline in summerfallow practices since 1996, Yukon farms saw a 107% increase in this practice over the same period. Approximately 60% of the 11,800 hectares devoted to farmland are in production or under development (Yukon Bureau of Statistics Information Sheet #C01-02).

THE AGRICULTURAL LAND BASE

LIMITS TO YUKON AGRICULTURE

Less than two percent of the Yukon's 483,450 square kilometres is suitable for agricultural development because of limitations of geography, climate and soils.

The Yukon is part of the Canadian Cordilleran region, which is characterized by mountainous terrain and the presence of glaciers and icefields in some areas. Soil-based agriculture is limited to major river valleys, including those of the Yukon, Takhini, Pelly, Stewart and Liard rivers. For the most part, agricultural activity is located on river sediments. In the Takhini and Dezadeash valleys, typical agricultural soils are formed on silts and clays deposited by glacial Lake Champagne.

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 north of 60° latitude.

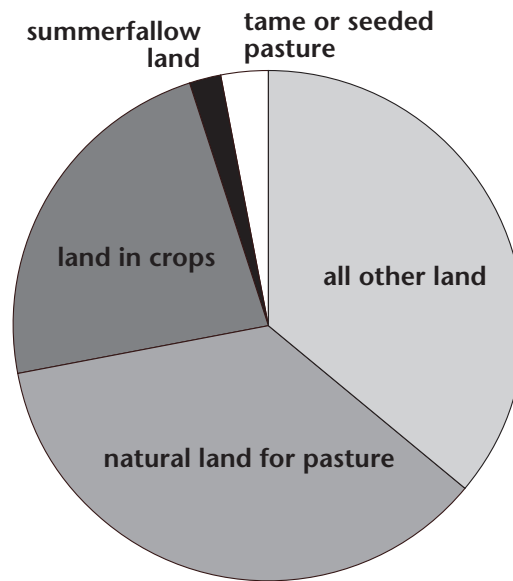
Average annual precipitation ranges from about 20 centimetres west of Whitehorse to more than 40 centimetres in Watson Lake. The southwest Yukon, where most agricultural production occurs, lies within the rain shadow created by the St. Elias and Coastal mountains, making the area subject to droughts between April and July. This 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 1984, when testing began, 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 all over the Yukon, varying from sporadic discontinuous in southern agricultural areas, and increasing to extensive discontinuous at the northern extreme of agricultural activity.

YUKON AGRICULTURAL AREAS

The total amount of titled land through the Yukon agricultural land program is approximately 12,370 hectares. This is slightly higher than the 2001 census figures because not every farm was producing during the census. This land is utilized in the following ways: approximately 23% in crops; 2% in summerfallow; 4% in seeded pasture and 35% in natural land for pasture; and the remaining 36% for other purposes. All of the Crown land titled for agriculture released to date represents less than one-half of one percent of the land base of the Yukon.

Agriculture land use in the Yukon.
(Source: 2001 Census of agriculture)



Most of the land used for agricultural purposes is located near major communities. Over 70% of the Yukon's farms are within 100 kilometres of Whitehorse. The Takhini valley agricultural area west of Whitehorse is the largest agricultural area in the territory. Smaller agricultural areas are also found near Dawson City, Watson Lake and Mayo.

OBTAINING CROWN LAND FOR AGRICULTURE USE

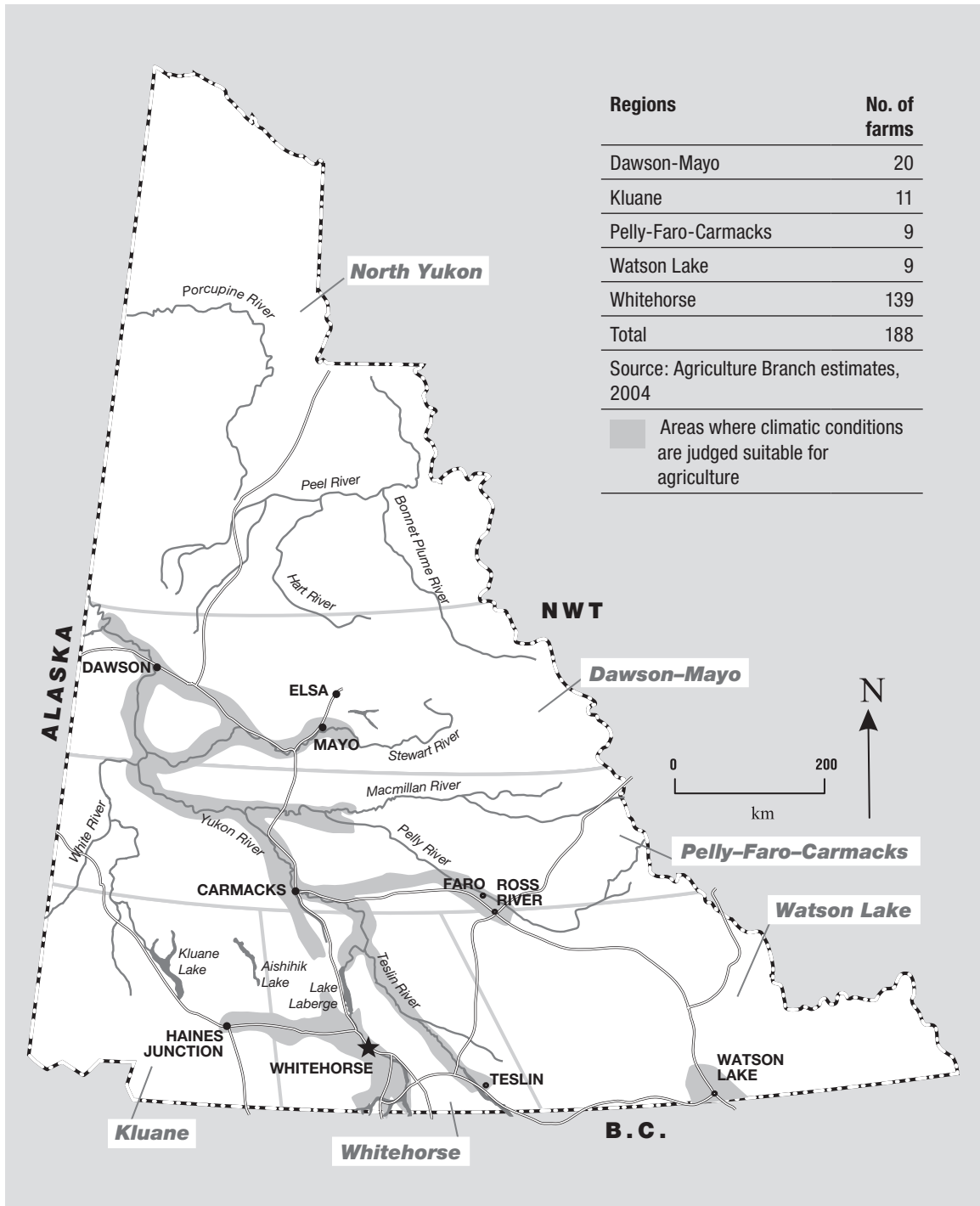
The Yukon is one of the few places in Canada where Crown land can be obtained for agricultural purposes. To qualify, an applicant must be a Canadian citizen or permanent resident of Canada, at least 19 years of age, and have lived in the Yukon for at least one year.

The process begins with an application to the Agriculture Branch. The applicant must describe the intended use of the land, and submit an acceptable Farm Development Plan within 60 days of making the land application. Applicants must also declare that they will retain their Yukon residency for the duration of any agricultural land Agreement for Sale that may result.

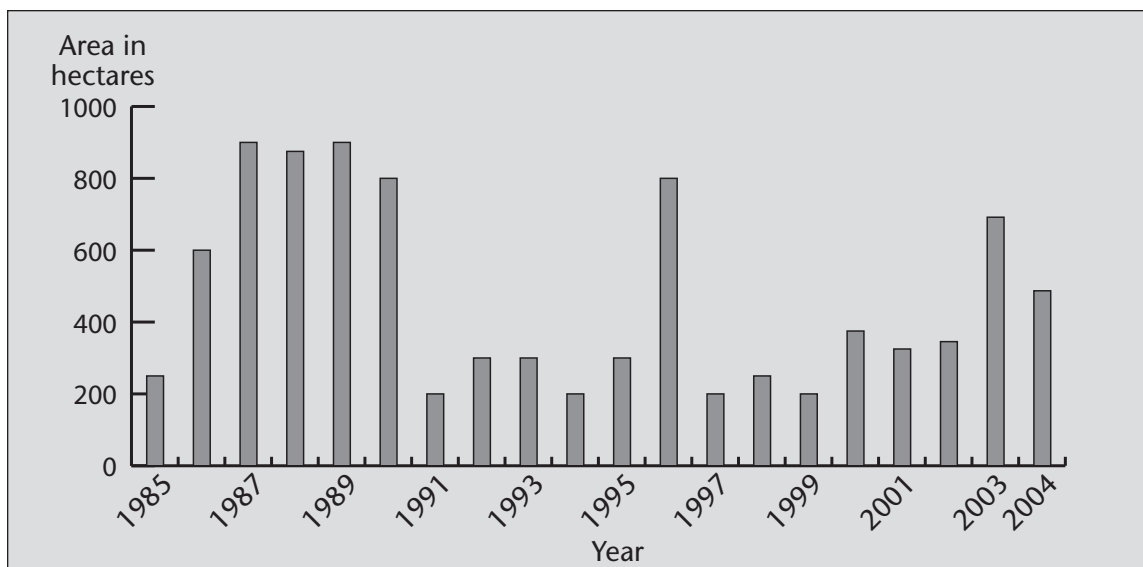
Reviews of the application are conducted by the Agriculture and the Lands branches of the Department of Energy, Mines and Resources, and other government agencies. Conflicts with land use regulations, other land interests and applications, or First Nations settlement land are identified. The Agriculture Branch conducts an evaluation of site suitability and arability.

The Agriculture Branch also assists the applicant in completing the Farm Development Plan for the application area. The Department of the Environment examines potential conflicts with fisheries, habitat, wildlife, and environmental and recreational values, as part of the *Yukon Environmental and Socio-economic Assessment Act (YESAA)* requirements. Once these reviews have been completed, the application is considered by the Agricultural Land Application Review Committee (ALARC).

A favourable recommendation from ALARC moves an application to the Land Application Review Committee (LARC) where affected First Nations, Renewable Resource Councils and the public are able to evaluate the agriculture proposal and express concerns. First Nations are affected when an application falls within their traditional territory. Applications are advertised in local newspapers, and letters are sent to neighbours within one kilometre to ensure that the public is aware of the application being reviewed.



Location of Yukon agricultural areas.



Area of agreements for sale released, 1985-2004.

Following a favourable recommendation from LARC, and a decision by the Yukon government to sell the parcel, a survey is authorized by the subdivision authority. Once the survey is registered, an Agreement for Sale is prepared, setting out the terms and conditions which must be met in order for the applicant to obtain title to the land.

Then the land is released to the applicant under the Agreement for Sale, with an appraised value that becomes the purchase price. The agreement holder is required to meet all the conditions of the Agreement for Sale, including development of the property. Under the provisions of the Yukon Agriculture Policy, for every two dollars of approved development work completed by the applicant, one dollar of the purchase price may be forgiven. The total expenditure on approved agriculture developments must equal twice the appraised market value after any development costs incurred by the Yukon government are subtracted. Development costs must be paid to the Yukon government in full before an Agreement for Sale can be offered. If the applicant meets all the obligations of the Agreement for Sale within five years or less, the agreement is considered complete, and title is issued.

AGRICULTURE LAND APPLICATIONS

2002: Nineteen agricultural land applications were submitted. Six of these applications were rejected by the Yukon government, and three were cancelled by the applicants' voluntary withdrawal. Eight applications have received approval and, after being surveyed, this land will be sold to the applicants. Two of the nineteen parcels under approval in that year have been sold.

Ten agreements for sale totalling 345.51 hectares, and 15 agricultural titles (includes agreements for sale from previous years) totalling 350.10 hectares were issued.

2003: Twenty-five agricultural land applications were submitted. One application won the lot in Dawson that was offered in the fourth public agricultural land lottery. Three were rejected by the Yukon government, and four were cancelled by the applicants' voluntary withdrawal.

Seven applications received approval, and are pending survey and sale. Two, including the lot won by public lottery, have been sold. The remaining nine applications received are still in the review process.

Eighteen agreements for sale totalling 691.55 hectares, and 13 agricultural titles (includes agreements for sale from previous years) totalling 458.25 hectares were issued.

2004: Forty agricultural land applications were submitted. Two applications were cancelled by the applicants' voluntary withdrawal. The remaining 38 applications of different status and conditions are still in the review process.

Nine agreements for sale totalling 487.08 hectares, and nine agricultural titles (includes agreements for sale from previous years) totalling 370.58 hectares were issued.

As of December 31, 2004, 129 land applications in process, with 98 under active consideration and 31 on hold. As a result of devolution, orders-in-council to transfer the lands to the Yukon government are no longer necessary. Most applications that are on



Agriculture land clearing in the Takhini Valley.

hold require prior commitments to be completed, or are delayed due to land claims, land planning processes or policy constraints.

AGRICULTURE LAND PLANNING

The Yukon government places an emphasis on the release of agricultural land through planned agricultural developments. Planned development is preferred because it:

- provides for coordinated use of infrastructure, such as roads and hydro;
- places less demand on services such as school bussing;
- 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.

To date, 12 lots have been released in four public agricultural land lotteries. In December 2004, a single lot of 60 hectares was sold by lottery in the Sunnydale area of Dawson City.

In August 1999, a fully cost-recoverable budget was established for the Agriculture Branch to facilitate agricultural land planning. This allows basic infrastructure, such as roads and power, to be established prior to land sales.

The public, municipalities and First Nations continue to be part of the planning process for planned agricultural areas. Background work is being carried out for further planned agricultural areas in several different locations. At the end of 2004, the following agriculture land planning initiatives were in the development process.

- A public working group established in the Haines Junction area has developed principles and guidelines for agricultural land development in the Kluane Land Use Planning Area. The Yukon government has placed an agriculture reservation (a preliminary designation of lands scheduled for planned agricultural development) on approximately 1,500 hectares that were identified as suitable for agriculture development. The environmental assessment of this proposed agriculture development is ongoing.
- There are two five-hectare lots for non-soil-based agriculture activity ready to be offered for agricultural development by a land lottery. They are near Gentian Lane, approximately three kilometres south of the Carcross Cut-off.
- One 65-hectare parcel in the Stewart Valley, approximately 12 kilometres north of Stewart Crossing on the North Klondike Highway, is ready to be surveyed.

GRAZING PROGRAM

To meet the grazing needs of Yukon livestock owners, the Yukon government grants grazing rights to eligible applicants for designated areas of public land. Grazing rights are given to the applicant in the form of a grazing agreement.

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

All grazing applications are reviewed by the Agricultural Land Application Review Committee. If the committee recommends approval of the application, it is then reviewed by the Land Application Review Committee. If no major conflicts are identified through the review process, and there is adequate graze, a grazing agreement can be issued.

For each grazing agreement, the Agriculture Branch prepares a grazing management plan. This outlines management practices which must be followed for sustained grazing. Agriculture Branch personnel monitor grazing agreements throughout the tenure of the agreement. During 2002, 2003 and 2004, the Agriculture Branch took an aggressive inspection role to ensure that grazing rights holders complied with the conditions of their grazing management plans.

At the end of 2003, the federal government devolved administration of four grazing leases to the Yukon government. These leases are included in the number of grazing agreements under administration in 2004.

During 2004, work continued on revisions to the grazing policy. In 2004, the Agriculture Branch began a pilot project for monitoring water quality on grazing agreements.

Summary of grazing program activities during 2002, 2003 and 2004.

Number of...	2002	2003	2004
Grazing agreements under administration	36	34	41*
Hectares under grazing agreement	10,165	9,896	12,853
Animal Unit Months** under grazing agreement	1,901	1,834	2,446
Grazing applications received	2	3	1
New grazing agreements granted***	2	0	4

*Includes four grazing leases transferred to the Yukon government by the federal government.

**Animal Unit Months 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.

PRODUCTION

GROWING SEASON CONDITIONS

Local weather data is recorded at the Takhini Valley Demonstration Site located in the Takhini River watershed, a few kilometres northwest of Whitehorse.

Summary of weather data from the Takhini test plots, 2000-2004.

	2000	2001	2002	2003	2004
Growing degree days (>5°C)	664.7	709.9	618.0	642.6	1,061.8
Effective growing degree days* (>5°C)	784.4	837.7	729.3	758.3	1,252.8
Frost-free period (0°C)	50 days	51 days	18 days	40 days	27 days
Killing frost-free period (-2.2°C)	68 days	77 days	51 days	54 days	88 days
Precipitation (mm)	179.2	158.7	97.5	89.46	94.9

*The temperature factor is adjusted upward by 18% to account for the boost plants receive from the long hours of daylight north of 60° latitude.

2002 weather summary

Spring and summer temperatures were normal for the southern Yukon, based on a 30-year average derived from the Whitehorse airport weather station. Total precipitation during the summer months was lower than usual by approximately 24 millimetres. The first killing frost occurred on August 2, making for a shorter growing season than normal, with a 51-day killing frost-free period.

The agroclimatic rating for the 2002 growing season at the Takhini test plots was Class 5 (700 to 900 effective growing degree days). This is the most common class for this part of the Yukon, and is one class too low for the maturation of oats, barley and rye. It also has limitations on several cold-hardy vegetables.

2003 weather summary

Temperatures during this growing season were again normal for this part of the Yukon, based on a 30-year average. The Takhini test plots recorded 758.3 effective growing degree days. As in 2002, the agroclimatic rating for the site was Class 5, which is considered the limit of arable agriculture and only suitable for forages and cold hardy crops.

Precipitation in 2003 was much lower than the 30-year normal average of 122.6 millimetres, with 89.5 millimetres of rain accumulating from May to August. This posed serious drought concerns for several crop species.

2004 weather summary

The 2004 growing season was definitely abnormal. An exaggerated frost-free period, combined with above average temperatures, resulted in effective growing degree days equalling 1,252.8. This meant a Class 2 in the Land Capability Classification System, something that has not been recorded in this part of the Yukon for the last 30 years. Such classification signified that agricultural lands had slight limitations, with restrictions to the range of some crops, but the ability to produce some grains and warm seasonal vegetables. This also allowed several local producers to dry a second cut of hay, as well as for potatoes to reach full maturity prior to frost. The first killing frost (-2.2°C) occurred September 1.

Accumulated precipitation during the growing season was again much lower than historical averages, with 94.9 millimetres recorded. These dry conditions, a third year in a row, emphasized the importance of irrigation systems for agricultural purposes in the southern Yukon.

The following table provides a summary of frost-free dates at the Takhini Valley Demonstration Site, located at the Gunnar Nilsson and Mickey Lammers Research Forest, dating back to 1988.

Frost-free period by year (0°C) at the Takhini test plots.

Year	Spring frost	Fall frost	Frost-free days*	Killing frost-free days (-2.2°C)
1988	June 27	July 21	26 days	56
1989	June 21	August 10	50 days	76
1990	June 20	July 14	24 days	–
1991	June 17	August 5	49 days	64
1992	June 25	August 20	55 days	–
1993	June 19	August 19	61 days	–
1994	–	–	–	–
1995	June 1	July 15	44 days	67
1996	July 10	August 5	25 days	50
1997	June 30	August 15	45 days	74
1998	June 13	July 17	35 days	81
1999	June 8	July 28	50 days	85
2000	June 22	August 10	50 days	68
2001	June 27	August 17	51 days	77
2002	July 13	July 31	18 days	51
2003	June 27	August 7	40 days	54
2004	July 6	July 26	18 days	88

*Whitehorse airport records a 30-year mean frost-free period of 87 days. This is substantially longer than that recorded at the Takhini Valley Demonstration Site. The airport receives winds which tend to keep temperatures above freezing. The forested nature of the Takhini valley site reduces air movement and makes frost more common.

PRODUCTION OVERVIEW

Overall production of agricultural goods in the Yukon continues to increase. This is shown by the number of products available in stores and farm markets, and advertised in local newspapers. Although production increased, it is difficult to determine if the value of agricultural sales also increased. This is largely due to a market transition from high value game farm breeding stock and exports of elk velvet antler, to local meat sales as a result of global influences beyond the control of local producers.

Increases in production have taken place in the red meat industry, locally produced grains, potatoes and forages, and the availability of organically produced vegetables and livestock products. There has been an increase in farm market vendors over the past three years and at least three farms have sold production shares through community supported agriculture offerings.

The production of forages continues to lead the development of agricultural land. As production and management practices continue to improve, the amount of hay imported into the Yukon from Alberta and British Columbia continues to decline. In a survey of horse owners, released in 2003, local hay accounted for 72% of feed purchases.

PRODUCTION SECTORS

Livestock

- Cattle, hogs and horses

Recent developments, such as available local feed and grazing land in the agriculture sector, support the increased growth in the number of cattle and hogs raised in the Yukon. The number of cattle fluctuates around the 220-head range, while the number of hogs raised annually is about 300. Most hogs raised here continue to be brought into the territory on a seasonal basis as weaners.

The 2003 survey of Yukon horse owners showed an estimated 1,748 horses in the territory. Although there is concern regarding presence of equine infectious anemia in the Yukon, the approach to dealing with this disease remains the same. At this time, the Yukon government has no plans to modify or step up its role in dealing with this disease issue; the federal government will remain the lead agency in this area. Approximately half of the horses recorded in the survey reside on Yukon farms, while the remaining are either owned by urban or country residential equestrians, or outfitters involved in big game hunting or wilderness tourism.



- **Game-farmed animals (elk, wood bison, muskox)**

In the past few years, the game farming sector has been impacted by two significant events from outside the territory. The discovery of chronic wasting disease (CWD) and bovine spongiform encephalopathy (BSE) in other parts of Canada has virtually eliminated markets for Yukon animals or animal products. Although these diseases have not been detected here, the concern has caused Yukon producers to shift their production from producing and supplying top quality breeding and antler velvet animals, to producing meat animals for local consumption. This shift in focus has reduced the number of elk on game farms, as producers adjust their inventory to reflect the meat market. This has led to a bright spot, however, with the development of a firm local demand for meat from both elk and bison, and this could increase should these producers gain access to a facility that provides inspected slaughter service.



Bull elk at Ford elk farms.

- **Reindeer**

This sector has also been severely affected by the market decline caused by CWD and BSE. There has not been slaughtering of reindeer for meat sales.

- **Llamas**

For the most part llamas in the Yukon are kept as pets. There was little interest in using them as pack animals. At the end of 2004, there were approximately 20 llamas in the territory.

Poultry

- **Chickens**

Although there is a small amount of growth in the production of meat birds in the Yukon, the yearly production continues to fluctuate up and down as backyard producers come and go. There are, however, two new developments that could increase interest in this sector, as well as the number of birds raised here. The first is the availability of Yukon-grown livestock feed, and the second is the recently established Agricultural Policy Framework program, Food Safety Transportation Incentive. This program will assist producers when delivering birds to the abattoir for processing. Both of these developments are reason to believe that production of Yukon-grown chickens will continue to expand.

- **Layers/egg production**

In 2001, the annual production of eggs was estimated at 105,000 dozen eggs. This number continues to grow as the largest Yukon producer works to expand its markets around the territory. In addition, small flock owners continue to increase their sales at farmers markets and local rural communities.

- **Turkeys**

Production of turkeys remains constant, with approximately 1,000 birds per annum raised here. Although the pattern of consumption is seasonal, there are opportunities for substantial expansion. As identified in the chicken sector, the APF program transportation incentive will encourage the turkey sector in expanding as well.

- **Goats and sheep**

There is limited interest in keeping and raising goats and sheep, with about 100 to 150 goats and 75 to 100 sheep currently on Yukon farms. The primary products are milk and cheese, as well as wool from goats, and meat from sheep. Many of these products are offered for sale at the farm gate and at farmers markets around the Yukon.

Field crops

- **Grain**

The production of cereal grains, such as barley, oats and wheat, is limited by climatic conditions, especially the high risk of frost during the growing season. However, regardless of climate, grain production in the territory has increased over the past two to three years, particularly in the Whitehorse area. The next several years will see further increases in production due to the use of new, earlier maturing grain varieties, increasing



Dairy goats at Brian Lendrum and Susan Ross's organic farm near Whitehorse.

access to more appropriate harvesting equipment, and more on-farm grain storage infrastructure. As the livestock sector expands, demand for locally produced feed grains continues to increase. Demonstration work undertaken by the Agriculture Branch has shown that it is possible to produce some cereal grains on a consistent basis. In addition, through innovative management techniques, some Yukon farmers have made significant strides in producing cereal grains.

- **Greenfeed**

Greenfeed involves the production of oats, and sometimes barley and fall rye, as forage (or hay) crops. For years, greenfeed production has been an important component of fodder production in the Yukon. The most common greenfeed here is oats, which is usually harvested with a binder (bundles) or a baler (bales) before it matures.

Based on the 2001 census, 1,300 acres of oat greenfeed and 157 acres of rye were grown. These numbers have remained constant over the past two to three years, while traditional hay production has increased.

- **Forage crops**

Tame forage (hay that is cultivated and/or seeded) production is one of the main activities in the Yukon agricultural sector. Forage production is focused primarily on growing smooth brome grass and, to a lesser extent, on timothy and a legume such as alfalfa. Based on the 2001 census, forage is grown on 4,700 acres, which is an increase of 10% over the 1996 census. Yukon forage producers grow a good quality product with protein levels averaging between 10% and 12%. According to the 2003 survey of horse owners and borders, 72% of the hay purchased in the Yukon now comes from farms here.

Seeded pasture usually contains a suite of grasses depending on soil conditions. Some of the more common are meadow brome grass, creeping red fescue and crested wheatgrass.

Greenhousing

Greenhousing in the Yukon represents the largest sector of horticultural sales. The 2001 census reported 29 commercial greenhouses operating here. Greenhouse flowers lead production with 30,850 square feet under protective cover. Vegetable production accounted for 20,916 square feet, and other production, such as forestry seedlings, totalled a further 1,934 square feet. Only one farm reported sales of mushrooms.

Most of the flower production in the Yukon can be attributed to spring bedding plant sales, which take place in most communities. Whitehorse and Dawson City contribute to most of the commercial vegetable sales, and supply rarely meets local demand. The most popular greenhouse vegetables are cucumbers and tomatoes, although zucchini and peppers are also sold. Sweet corn, squash and pumpkins are greenhouse novelties that show up at local fall fairs but are usually too expensive to produce here commercially.

Vegetables and berries

Between the 1996 and the 2001 census, vegetable production declined close to 25%, to 24 acres of mixed vegetables and 30 acres of potatoes. The number of farms producing vegetables also declined, from 30 in 1996 to 24 in 2001, and for those producing potatoes, from 20 to 13. This trend reversed direction between 2002 and 2004.

There has been a noticeable increase in the availability of fresh produce in the Whitehorse area over the past three years. Most of this has come from organic farms that, at the start of the growing season, have been offering shares in their production for a fixed price. This form of direct marketing, called Community Supported Agriculture (CSA), has shareholders invest in the future production of the farm in exchange for weekly food baskets during the growing season. CSA provides operating capital for farmers in the spring when most expenses occur. Investors get local, fresh farm products from a source of their choice during the summer. Saturday farmers markets have also re-emerged at the corner of the Hotsprings and Mayo roads and on the waterfront in Dawson City.

Potato production has seen a significant increase during the past two growing seasons. In 2003, an organic producer south of Whitehorse had potatoes for sale throughout the winter, prompting a number of meetings with institutional and retail buyers to expand marketing opportunities. In 2004, a producer north of Whitehorse entered the potato market with a harvest in excess of 300 tons. This level of production has allowed for new developments in farm infrastructure and equipment, as well as an increased portion of shelf space at local grocery stores being filled by local product.

In 1996, there were nine farms producing 4.4 acres of raspberries, strawberries and saskatoon berries. In 2001, the acreage increased to 11 acres on 10 farms, with limited expansion into apples and grapes being reported. Since the census in 2001, berry and fruit production has been limited to mostly on-farm consumption and farm market sales. This is largely due to the limited winter hardiness of commercially available fruit stock, frosts during flowering, and fruit formation that have an effect on fruit quality and yield.

In 2000 and 2001, the Agriculture Branch conducted a variety of trials on strawberries and raspberries to determine the commercial viability of the cultivars imported from the prairie provinces and Alaska. The results of these trials can be found in the annual research and demonstration reports published by the branch.



Zucchini squash grown under cover on the Atlin Road.



Steve MacKenzie and Tony Hill having a look at a new potato crop on the Yukon Grain Farm, 2004.

Honey production

Honey produced in the Yukon is harvested mostly from wild flowers, particularly fireweed (*Epilobium* sp.). According to local producers, warmer temperatures experienced in the Yukon during the spring and summer have allowed for early flowers such as lupins (*Lupinus* sp.), dandelions (*Taraxacum* sp.) and roses (*Rosa* sp.) to flourish in abundance. This early flowering stimulated bees, thus increasing production earlier in the season. Over the last three years, producers have averaged a heavier volume of honey than previous years. There are six producers, both commercial producers and small-scale hobby operations. As a result of forest fires around the Yukon in 2003 and 2004, 2005 should also prove to be an excellent year for fireweed abundance.

YUKON GOVERNMENT SERVICES AND PROGRAMS

YUKON AGRICULTURE BRANCH

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

Staff positions

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.



Agriculture Branch staff. (left to right) Tony Hill, Edward Lee, Dave Beckman, Patricia Smith, Matt Ball, Valerie Whelan, Mary Lynn Drul, Denis Lacroix, Kevin Bowers and David Murray.

The **Agriculture Development Officer** is responsible for land inspection under agreements for sale, on-farm extension services, coordination of poundkeepers, and coordination of livestock control measures as well as the Canada Plans Service and Prairie Farm Rehabilitation Administration activities in the Yukon. 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 **Land Disposal Coordinator** receives, processes and tracks agricultural land applications, and maintains a database of these applications.

The **Land Resources Officer** 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, grazing management agreement development (conditions of lease) and administration, 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.

The Agriculture Branch had an Operation and Maintenance (O&M) budget of \$717,000 in 2004-2005.

Approximately one-third of the branch's staff time was devoted to various forms of extension services and administration. About 10% was dedicated to inspections and regulatory activities. As more farms are developed, an increasing proportion of time

is being allocated to agricultural land and land application issues. Staff also spent a significant amount of time on policy development, program development under the Agricultural Policy Framework, infrastructure and event planning, marketing projects, and attending land use planning and Agricultural Policy Framework advisory committee meetings.

RESEARCH AND DEMONSTRATION

Takhini Valley Demonstration Site

Since 1988, the Agriculture Branch has maintained demonstration plots at the Gunnar Nilsson and Mickey Lammers Research Forest. The initial thrust was to test a wide variety of crops for suitability in the Yukon. This phase complemented the Yukon Crop Development Program that ran from 1985 to 1990.

The second phase of this project saw a reduced emphasis on variety testing, and more work on soil conservation techniques. Different varieties of legumes were tested for productivity and nitrogen fixing capability. A variety of green manures were tested, including field peas, lentils and oats.

The results of these trials were documented in the Agriculture Branch research reports of 1990, 1991 and 1993.

In 1995, a four-year trial to increase soil organic matter and improve soil till was initiated at the Takhini demonstration site. A horticultural crop followed a three-field rotation of plow-down crops. Records were kept of soil pH, organic matter and economic inputs and returns so farmers could be advised on the costs associated with the program. Results were published in the annual publication, Yukon Agricultural Research and Demonstration report (see Appendix).

Following the soil improvement program at the Takhini test site, and a successful four-year grain maturity trial in the central Yukon (1995 to 1998), the Takhini site was developed to measure grain maturity in the southern Yukon. The purpose of this trial was to measure the economics of production and management inputs that are required to mature grain in southern Yukon. A horticultural cash crop of potatoes was also grown at the forestry farm to test different varieties and determine profitability.





Irrigation water delivery system at the Takhini demonstration site.



Trial on optimizing irrigation and nutrient inputs to Yukon crops

A trial on optimizing irrigation and nutrient inputs was initiated in 2002, with collaboration from the Pacific Agri-Food Research Centre in Summerland, British Columbia. The purpose of this ongoing trial is to examine best management practices combining fertilization, irrigation, row cover and mulching techniques to optimize production of small fruit crops, such as raspberries and strawberries, under Yukon conditions. Another aspect of the trial is to examine the usefulness of emerging delivery system technologies that can be used to supply nutrients and irrigation water to the plants. By applying only as much water and fertilizer as is needed, water resources can be conserved and the risk of nitrate leaching can be reduced.

The key to minimizing water use is to have a clear understanding of how much moisture is used by the plant, how much is transpired through the leaves, and how much is lost through the soil. Using various crop monitoring technologies, information on soil moisture and evapotranspiration is computed to automatically apply the fertilizer and water in required amounts.

An atmometer, or evaporation meter, takes readings throughout the day and sends the data to a CR-10 datalogger. This datalogger computes values for evapotranspiration and sends a signal to a relay that turns on a water pump for a specific amount of time for each separate line. During every irrigation, fertilizer is applied according to specific fruit crop recommendations.

Another datalogger is located in the middle of a strawberry plot and compiles data from moisture sensors and temperature sensors beneath the plastic mulch. Examination of this

data provides assurance that the system is functioning properly and helps determine soil moisture levels. All the data is downloaded once a week to a laptop computer.

This trial will help determine the usefulness of new technologies in Yukon applications. The hope is that some of these techniques can be applied to other Yukon field crops such as potato, grain and forage.

Two new forage plots were added to the test site in August 2003, in preparation for a trial to determine nitrogen mobilization in hay crops under irrigated conditions. By understanding the movement of soil nitrogen in a hay field under irrigated conditions, it will be possible to maximize the benefits of applied nitrogen fertilizer. Using fertilizer more effectively means less fertilizer may be required, resulting in cost reductions for the farmer and the environment. One pure stand of smooth brome grass and one plot of pure timothy were developed over the summer of 2004. A study of nitrogen movement within these plots will begin in the summer of 2005.

EXTENSION SERVICES

General

The Agriculture Branch offers Yukon producers a variety of on-farm and in-office consultation services. These services provide linkage between new research and on-farm applications of information and technology. Between 2002 and 2004, specialists were brought in from Saskatchewan, Alberta, British Columbia and Alaska to share their



Timothy hay and raspberry plots at the Takhini demonstration site.

expertise with Yukon producers on growing specialty crops, marketing, climate change, soils, forages and game farming.

The branch also maintains a collection of agricultural resource materials for reference. It includes books, pamphlets and videos on a wide range of agricultural subjects, as well as a herbarium and a display of garden insects.

The quarterly bulletin, InFARMatIon, has been produced by the branch since 1987 to keep producers updated on industry activities and events. It contains articles on crops, sustainable agriculture, extension services, livestock, industry trends, and research and demonstration projects. Circulation has increased from about 300 copies per issue in 1994 to approximately 800 copies in 2004.

The Canada Plan Service, available at the Agriculture Branch office, has over 100 plans for the construction of agricultural facilities, such as most farm buildings, root cellars, livestock shelters, animal chutes and grain storage structures. Up to 30 of these plans are used by Yukon producers each year.

The feed, soil and irrigation water testing service is one of the most popular programs offered by the branch. Commercial farmers can bring in samples for shipment to laboratories for analysis, at no cost to the farmers. In this way, producers can determine if their soil, feed or water source are deficient in any important nutrients, and can take corrective action.

Seminars and symposia

The annual, fall “North of 60° Agriculture Conference” sponsored by the Agriculture Branch is a popular event. It provides local producers with an opportunity to share their experiences and hear from experts on a variety of topics.

At the November 2002 conference, the Agriculture Branch sponsored a one-day seminar on food processing. Kristy Long, Statewide Food and Home Economics Specialist from the University of Alaska Cooperative Extension Service, gave a presentation on processing jams and jellies. Following Kristy, local beekeeper Peter McPeake talked about honey extraction and packaging. Then Kevin Bowers, Development Officer with the Yukon



Agriculture Branch, showed the audience the tools and techniques required to process wild and farm-raised meats.

The annual farmer of the year award was presented to Bill and Barbara Drury at the evening banquet, followed by a slide show reflecting the year in Yukon agriculture. The banquet, held at the Gold Rush Inn in Whitehorse, featured locally grown and raised farm products.

During the 2003 conference, two concurrent seminars were held. The main seminar was for horse owners and began with Cliff Hanna, a local equine dentist, showing the audience the benefit of becoming tooth savvy. Jim Pollock, an extension agrologist from Saskatchewan, spoke next on horse selection, conformation of the right horse “with form to function in mind.” Dr. Larry Frischke, a veterinarian with Wyeth Animal Health in Alberta, started the afternoon off with a presentation on equine infectious anemia and west Nile virus, two diseases of concern to local horse owners. April Clay, a chartered psychologist and experienced show jumper, finished the day with a talk about preparing for competition “from the neck up.”

The secondary session was a public consultation with the agriculture industry on revisions to the agriculture policy and options around risk management programs being considered for the Yukon.



Steve MacKenzie displays new potatoes at Yukon Grain Farm, 2004

The evening banquet, once again held at the Gold Rush Inn, featured a fine array of Yukon-farmed foods. Heidi Marion and Garrett Gillespie were presented with the farmers of the year award for the development of their Crag Lake organic farm.

The 2004 annual conference was entirely devoted to the ABCs of local organic farming. In the morning, Kathleen Kneen, a food system analyst, spoke about local and organic production and the importance of supporting food producers in this area. This led to a panel discussion with local producers on marketing strategies and challenges in the north. The first afternoon session — a virtual tour of internet resources available — featured Rochelle Eisen, an organic farm inspector from British Columbia who has started a website for organic farmers. A second panel followed, discussing production methods and challenges facing local organic farmers. Brian Lendrum, a local goat farmer and market gardener, closed out the afternoon with a presentation on managing the compost pile for optimum results.

The 2004 banquet, with a menu of locally produced organic foods prepared by a local master chef, was held at the Masonic Hall. The annual farmer of the year award went to local grain and potato farmers, Steve and Bonnie MacKenzie-Grieve, and a Commissioner's award was presented to Hugh Bradley and his family for contributions to the industry over their 50 years of farming at Pelly Farm.

Master Gardener course

As of February 2004, more than 120 Yukoners had taken the Master Gardener course in northern gardening techniques. The course began in 1997, with help from the Alaska Cooperative Extension Service. Each year, local gardening experts and Agriculture Branch staff instruct 25 experienced northern gardeners in 12 different areas of horticulture. For a small fee, students are provided with this training, and are asked to commit 40 hours of volunteer time to the community to educate other northern gardeners.

Following the 2003 course, graduates formed the Yukon Master Gardener society to share ideas and provide expertise to community gardening projects.

POLICY INITIATIVES

Grazing Lease Policy evaluations

Planning commenced in 2004 to carry out a review of the 1987 Grazing Lease Policy. A questionnaire was prepared by the Agriculture Branch and mailed to all grazing lease holders. The purpose of the questionnaire was to solicit input from grazing lease stakeholders on ideas and suggestions for revising the policy. At the end of 2004, input was still being received by the branch.

Based on comments received, a discussion paper will be developed and made available. Following input from this process, a new policy will be developed, probably in early 2006.

Agriculture policy review

Previous work and recommendations from the 2000 multi-year development plan, the 2003 strategic analysis, and the Agricultural Policy Framework Agreement helped establish the basis on which to proceed with agriculture policy consultation and review. Phase one consultation included meetings with the agriculture industry, First Nations and mandated boards and councils such as renewable resource councils. This consultation period went from August 2003 to January, 2004. A summary was prepared and made available to the public.

In addition, a discussion document was prepared and distributed for phase two consultation, this time involving all Yukoners. This phase was completed in early December 2004, and by the end of the year, a new policy was being drafted. The revised policy is to be in place in 2005.

AGRICULTURE PLANNING AND ADVISORY COMMITTEE

The Agriculture Planning and Advisory Committee (APAC) was established in 1984 to provide a mechanism for ongoing consultation between the federal and territorial governments and the Yukon agriculture industry. The committee has a mandate to make recommendations to the Minister of Energy, Mines and Resources on any agriculture issue.

The last meeting of APAC was held on October 2001. The committee is currently inactive due to constitutional changes to the Yukon Agricultural Association's chapter structure which, in turn, impacted the APAC committee structure. Also, a newly established Agricultural Policy Framework industry-government working group was established which has, at least for the time being, taken on some of the major functions of APAC. The APF industry-government working group is described in more detail starting on page 28.

INFRASTRUCTURE DEVELOPMENT

ABATTOIR

The abattoir at Partridge Creek continues to provide slaughter services for red and white meat on a pre-arranged basis. With the recent addition in 2003 of the Agricultural Policy Framework program, Food Safety Transportation Incentive, which provides financial assistance to producers to off-set the cost of transporting animals to the abattoir for slaughter, there has been a marked increase in the number of beef and poultry processed at this facility. Whether this incentive will contribute to the viability of the abattoir has yet to be determined, however, the interest and demand for locally grown meat remains strong and will continue to fuel the production of beef and poultry.

Animals	2002	2003	2004
beef	16	39	26
chickens	975	1375	975
turkeys	100	100	100

VETERINARY SERVICES

There are currently three veterinary clinics operating in the Yukon, as was reported in the last State of the Industry report, and they continue to provide quality service to the agriculture community. In addition to these clinics, Agri-Food Canada veterinarians from Dawson Creek, British Columbia, travel to the Yukon to test game-farmed and domestic animals for brucellosis and tuberculosis, and to handle issues and concerns related to equine infectious anemia, as well as other federally reportable diseases.

FARM CAPITAL, INVESTMENT AND BENCHMARKS

The 2001 census indicated there were 170 farms, and the value of investment was \$50.2 million in land, buildings, equipment and livestock. As of June 2004, the Agriculture Branch estimates that farm numbers may be in the 180 range, with an investment approaching \$52.0 million. The primary increase in investment has been the increase in land, buildings and equipment. In addition, the agricultural Gross Domestic Product (GDP) has posted strong growth over the past six years and levels are now on par with forestry GDP in the Yukon.

Wage and labour costs in the Yukon are much lower than in neighbouring Alaska, but well above other, similar-sized Canadian jurisdictions, such as Newfoundland. Electricity and diesel costs are high which increases the cost of production. However, electricity costs are less here than in Alaska. Corporate tax rates are high and, as a comparison, exceed the rates in Newfoundland and Alaska. On a final note, the industry shows weak performance in terms of growth in domestic demand and corporate profits, however, the Yukon's overall performance is enhanced by its very low bankruptcy rate.

JOINT FEDERAL-YUKON PROGRAMS

AGRICULTURAL POLICY FRAMEWORK

At the 2001 annual meeting of agriculture ministers and deputy ministers, held in Whitehorse, a commitment was made by all provinces and territories to develop an umbrella policy framework, which became known as the Agricultural Policy Framework (APF). This was followed by the Yukon signing the APF agreement in July 2002. A Canada-Yukon Implementation Agreement (CYIA) followed the APF and the CYIA was signed by Canada and the Yukon in July 2003. By signing these two agreements, the Yukon became eligible for up to \$321,000 in federal funding per year from April 1, 2003 to March 31, 2008. The funds are to be matched on a 60% federal, 40% territory split.

The APF agreement includes five areas: food safety and quality, science and innovation, renewal, environment, and business risk management. An APF industry committee was established by the Yukon government to work with the Agriculture Branch and Agriculture and Agri-Food Canada to plan appropriate APF programs for the territory.

To date, several APF activities have taken place, including:

- an environmental assessment on agriculture land and grazing leases;
- attendance by Yukoners at the 5th Circumpolar Agriculture conference in Sweden;
- research, demonstration and cooperative agriculture test plots in the Yukon;
- conferences, workshops and seminars on a variety of topics, including environmental farm plans and food safety;
- the Master Gardener program;
- enhanced 4-H activities;
- analysis of food safety legislation;
- disease monitoring for purposes of enhanced food safety;
- development and delivery of the Canadian Agriculture Income Stabilization program; and
- human resource development in business risk management programs.

Agricultural Policy Framework industry committee

In June 2003, an Agricultural Policy Framework industry committee was formed followed by ministerial appointments to it that summer. The mandate of the committee is to provide advice to the Yukon government on the implementation of the policy framework and other Canada-Yukon implementation agreements. As well, the committee is to provide advice to the Minister of Energy, Mines and Resources on industry development and other related agriculture matters. The committee is comprised of five industry representatives: two from the Yukon Agricultural Association, one from the Yukon Game

Growers Association, one from the Growers of Organic Food Yukon, and one member at large. The government is represented by five members from the Agriculture, Policy, and Communications branches of the Department of Energy, Mines and Resources, as well as two representatives from Agriculture and Agri-Food Canada. The committee is chaired by the Director of the Agriculture Branch.

The first meeting of the APF industry committee took place in October 2003, followed by nine meetings between December 2003 and December 2004. The main topics of discussion have focused on APF implementation, agriculture policy development, and government budgeting of APF funds.

Copies of the minutes of these meetings are available to the public from the Agriculture Branch office.

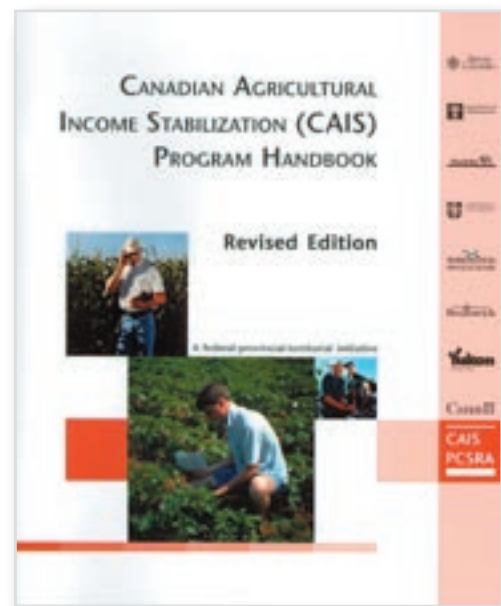
CANADIAN AGRICULTURAL INCOME STABILIZATION PROGRAM

The Agricultural Policy Framework agreement includes a chapter on business risk management. In this regard, the Yukon obtained the help of Alberta Financial Services Corporation to investigate and develop appropriate agricultural income stabilization and risk management programs for the territory.

Based on a thorough assessment of Yukon agriculture industry needs, a decision was made to enter the national Canadian Agricultural Income Stabilization (CAIS) program which provides affordable levels of risk management coverage that producers can tailor to meet their needs. The program helps cover income stabilization and disaster situations.

On August 13, 2004, the Yukon and Canadian governments announced that the CAIS program would be available to farmers in the Yukon. The program was set up to be retroactive to cover production losses in 2003. It is a 60/40 cost sharing agreement with the Government of Canada and flows out of the APF agreement.

The program for the Yukon is administered by the CAIS office in Winnipeg. The role of the Agriculture Branch here is to provide information on the program and direct enquiries to the Winnipeg office (1-866-367-8506) where experts are available to provide answers and direction on how to apply to enter the CAIS program.



FOOD SAFETY TRANSPORTATION INCENTIVE

2003 and 2004 saw a lot of activity related to the food safety and quality chapter of the APF. This program provides direct assistance to red and white meat producers to assist with the additional financial burden of transporting animals to the only licensed abattoir in the territory, thereby ensuring safe processing of meat products. It is the objective of this program that more producers will make use of a standardized and inspected slaughter facility.

In 2003, over 30 head of cattle were transported for slaughter to the Partridge Creek abattoir. The program was expanded in 2004 to include white meat; 2,800 pounds of chicken and turkey were processed.

FEDERAL GOVERNMENT SERVICES AND PROGRAMS

AGRICULTURE AND AGRI-FOOD CANADA

Between 2002 and 2004, Agriculture and Agri-Food Canada and the Agriculture Branch of the Yukon government made significant progress in the establishment and implementation of the comprehensive Agricultural Policy Framework (APF), designed to position the Canadian agriculture and agri-food industry as the world leader in food safety, innovation and environmentally responsible production.

The APF is a federal-provincial-territorial initiative that brings together five priority elements for the Canadian agriculture industry — business risk management, environment, food safety and quality, renewal, and science and innovation. Through the APF agreement, federal, provincial and territorial Ministers of Agriculture have pledged to help the Canadian agriculture and agri-food sector. It will do this by meeting the challenges of the global marketplace. As well, it will maximize new opportunities at home and abroad by safeguarding and enhancing the food safety and quality system in Canada through science and environmentally sound agricultural practices. As of the end of 2004, all provinces and territories had signed implementation agreements under the APF.

Over the past three years, Agriculture and Agri-Food Canada has undergone a significant change in its governance structure to realign the department into horizontal teams that are responsible for results in the five priority elements. In addition to these five teams, there is also a markets and trade team responsible for implementing a federal-provincial-territorial international trade strategy. This strategy is supported by industry, and integrates trade policy, market access, market development, investment, and international development for the Canadian agriculture and agri-food sector. Enabling teams responsible for corporate functions, policy analysis and planning, and program delivery support the horizontal teams.

The Agriculture and Agri-Food Canada territorial manager in Whitehorse, who reports to the regional director for the Alberta and territories region in Edmonton, continued to provide for delivery of Agriculture and Agri-Food Canada programs in the Yukon, Northwest Territories and Nunavut during the 2002 to 2004 time period. The manager also delivered a number of Canadian Food Inspection Agency programs in the Yukon over this time period and represented Agriculture and Agri-Food Canada on the Yukon Federal Council as well as on Rural Team Yukon. The Agriculture and Agri-Food Canada territorial manager shares an office with the Yukon government Agriculture Branch.

AGRICULTURAL POLICY FRAMEWORK IMPLEMENTATION AGREEMENT

In July 2003, the Yukon government signed the Canada-Yukon Implementation Agreement (CYIA), which allows for implementation of the APF in the Yukon. CYIA governs the delivery of new and improved programming for Yukon producers under the five elements of APF and provides the Yukon agriculture and agri-food sector with tools that will enable more diversification and value-added growth, new investment and employment, and the highest standards of environment stewardship and food safety. CYIA provides for 60/40 cost sharing between the governments of Canada and the Yukon, with the federal government allocating up to \$321,000 per year over the next five years to support Yukon APF programs. CYIA is managed jointly by the Agriculture and Agri-Food Canada regional director for the Alberta and territories region and the director of the Agriculture Branch for the Department of Energy, Mines and Resources.

CANADA-YUKON INDUSTRY TRANSITION PROGRAM AGREEMENT

In March 2004, Canada entered into the Canada-Yukon Industry Transition Program Agreement (CYITPA) with the Yukon government to assist the Yukon agriculture industry position itself to take advantage of the opportunities provided by the implementation of APF in the Yukon. CYITPA provides \$271,000 in transition funding for a number of activities that were identified as important to agricultural industry members. This agreement is being administered by the Yukon Agricultural Association through a delivery agent agreement signed by the Agriculture Branch and the Yukon Agricultural Association.

CANADIAN ADAPTATION AND RURAL DEVELOPMENT FUND

The Canadian Adaptation and Rural Development (CARD) Fund was a federal program designed to assist rural and agricultural people and communities adjust to the changing economy. The second phase of the CARD program (CARD II) was a five-year program that ended on March 31, 2004. The Yukon Agricultural Association was responsible for administration of the territorial CARD II program and was allocated \$660,516 in funding over the five years of the program. The association established the Yukon Agricultural Association-CARD committee — comprised of agriculture industry representatives from all regions of the Yukon — to evaluate and approve funding for projects that were conducted in the Yukon. From April 1999 to March 2004, the Yukon received \$411,108 of CARD II funding.

The CARD II program focused on six priority areas: human resource capacity building, capturing market opportunities, research and innovation, food safety and quality, environmental sustainability and rural development. A summary of projects funded by the Yukon CARD program is shown on the next page. Copies of the project reports may be obtained from the Yukon Agricultural Association office or from the Agriculture and Agri-Food Canada territorial manager.

Summary of CARD projects funded from 2002 to 2004

Project title	CARD priority	CARD fund contribution
Klondyke Valley market gardeners	capturing market opportunities	\$1,813
Optimizing irrigation and nutrient inputs to Yukon crops	research and innovation	\$39,900
Farmers market initiative	capturing market opportunities	\$20,292
Agriculture producers directory	capturing market opportunities	\$2,942
Downtown Urban Gardeners Society	rural development	\$7,483
Wheaton River community-supported agriculture	rural development	\$2,730
Value-added production for Yukon beekeepers	capturing market opportunities	\$2,000
Expanding permaculture in the Yukon	human resource capacity building	\$2,500
Klondike Valley agri-awareness study trial	research and innovation	\$9,128
Yukon Agricultural Association public awareness program	rural development	\$15,000
Elk velvet antler marketing plan	capturing market opportunities	\$7,350
LunchiLou's farmers market	capturing market opportunities	\$1,100
Canadian Food Inspection Agency food safety workshop	food safety and quality	\$1,000
Whitehorse area cold storage study	rural development	\$6,248
Need assessment study for a community kitchen	rural development	\$3,434
Fertilizer bulk storage bins	rural development	\$105,000
Gardening for Selkirk First Nation	human resource capacity building	\$10,000
Greenhouse production of seedlings for low income women	human resource capacity building	\$4,160
Greenthumb gardening agricultural training for First Nations	human resource capacity building	\$5,553
From seeds to harvest market garden agricultural training	human resource capacity building	\$14,930
Klondyke Harvest Fair	rural development	\$19,000

AGRICULTURAL ENVIRONMENTAL STEWARDSHIP INITIATIVE

The Agricultural Environmental Stewardship Initiative (AESI) was a national, \$10 million federal program administered through the CARD agriculture industry councils in each province and territory. The AESI funds were used to support agricultural environmental projects that addressed key environmental priorities related to water quality, soil health, wildlife habitat, biodiversity and greenhouse gas emissions. The Yukon Agricultural Association-CARD committee was responsible for the administration of this initiative in the Yukon and was allocated \$33,333 in AESI funding over the 2002 to 2004 time period.

Summary of AESI projects funded from 2002 to 2004

Project title	AESI fund contribution
Riparian area workshop – Caring for the green zone	\$3,835
Environmental farm plans	\$3,375
Fish waste as natural fertilizer	\$6,280

ADVANCING CANADIAN AGRICULTURE AND AGRI-FOOD PROGRAM

The Advancing Canadian Agriculture and Agri-Food (ACAAF) program is a five-year federal program aimed at positioning Canada's agriculture and agri-food sector at the leading edge to seize new opportunities. ACAAF was launched in April 2004 as a successor to the Canadian Adaptation and Rural Development (CARD) Fund, and will continue CARD's innovative and cooperative approach to funding projects at the national, multi-regional and regional level.

The objectives of the ACAAF program are to:

- expand the sector'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.

Under the ACAAF program, funding is available for eligible projects identified and carried out by the agriculture and agri-food sector. The ACAAF program complements the objectives set out under the Agricultural Policy Framework and will further advance progress toward its goals by engaging industry stakeholders in undertaking new activities which complement existing programming. ACAAF is about the future of the Canadian agriculture and agri-food sector and finding new approaches for advancement and innovation. The agriculture and agri-food industry is constantly changing and requires flexibility and the capacity to address new issues as they emerge.

Increasing collaboration and forming new alliances throughout the sector will be key for future success. To foster and strengthen collaboration, while maximizing the benefits from the federal investment, the ACAAF program will encourage and support “collective outcome” projects which demonstrate greater industry collaboration amongst national, multi-regional and regional stakeholders.

The ACAAF program is delivered under the following three pillars.

Pillar I: *Industry-led solutions to emerging issues* supports projects that test or pilot approaches and solutions.

Pillar II: *Capturing market opportunities by advancing research results* supports projects that transfer research results into market opportunities.

Pillar III: *Sharing information to advance the sector* supports projects aimed at gathering, analyzing and sharing information to contribute to future agriculture and agri-food policy directions.

In the Yukon, ACAAF funding is being provided to the Yukon Agricultural Association, the organization that was responsible for the regional delivery of the CARD program. Over the next five years, the Yukon Agricultural Association-ACAAF council, comprised of representatives of the Yukon’s agriculture and agri-food sector, will manage an annual budget of \$256,000 and be responsible for the evaluation of project proposals and approval of project funding under the program. By supporting collective outcome projects, a key objective of ACAAF, the council will be able to increase the funding up to \$310,000 annually.

CANADIAN FOOD INSPECTION AGENCY

The creation of the Canadian Food Inspection Agency (CFIA), in April 1997, brought together inspection and related services previously provided through the activities of four federal government departments: Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, Health Canada, and Industry Canada. The establishment of CFIA consolidated the delivery of all federal food, animal and plant health inspection programs. CFIA reports to the federal parliament through the Minister of Agriculture and Agri-Food Canada.

All inspection services related to food safety, economic fraud, trade-related requirements, and animal and plant health programs are provided by CFIA. Staff monitor the safety and quality of fish, meats, dairy products, fruits and vegetables — both fresh and processed. They register and inspect agri-food processing facilities to ensure that the facilities meet federal standards, and monitor imports to ensure that food entering Canada meets the same stringent standards set for our own producers. Also, when Canadian food is shipped to other countries, inspectors are often asked to certify that the products meet the requirements of the importing country.

Within the Yukon, CFIA provides inspection for the federally registered egg grading station and fish processing plant. In addition, inspections for such products as smoked salmon, bottled water, jams and jellies, sauces and beer regulated under the *Food and Drugs Act* occurred at Yukon food producing establishments in 2002 and 2003. The CFIA, through its office in Kelowna, British Columbia, also responds to Yukon food safety complaints and performs recall effectiveness checks for food products that have been recalled from the market due to food safety and allergy concerns.

CFIA works to stop diseases and pests from entering Canada and to control or eradicate diseases if they occur. During the summer seasons from 2002 to 2004, CFIA continued to provide inspection services for international flights arriving at the Whitehorse airport. CFIA also certifies plants and animals that Canada exports around the world. Through an agreement between CFIA and the Agriculture Branch, plant inspection services are provided and phytosanitary certificates are issued by the branch agrologist. Animal health services for the Yukon are provided by the CFIA Dawson Creek office which does herd testing and health certificates for the export of livestock and pets. This office also works with the Agriculture Branch in an advisory capacity for the territorial abattoir.

As well, CFIA examines labels on food products to ensure their accuracy. This includes checking quantities and verifying the composition, nutritional information and grade of processed foods. Retail inspections of Yukon grocery stores occurred in 2002 and 2003 to ensure that food products were accurately labelled.

INTERNATIONAL MARKETS AND TRADE TEAM

From 2002 to 2004, the International Markets and Trade Team, from the Alberta and territories regional office of AAFC, worked with the Yukon industry and the Agriculture Branch to enhance the Yukon agri-food sector's share of domestic and international markets. The territorial manager continued to be an ex-officio member of the Yukon Agricultural Planning and Advisory Committee and the Yukon Agricultural Policy Framework industry advisory group during this period.

Team activities focussed on international business development services for the Canadian agri-food exporter, through the delivery of the Agri-Food Trade Service (ATS). Through close coordination between Agriculture and Agri-Food Canada and the Department of Foreign Affairs and International Trade, ATS provided centralized access to international market information, export trade counselling and export support activities.

In order to facilitate this function, ATS links regional offices with national experts and Agri-Food Trade Commissioners in Canadian embassies. Through the ATS, Yukon companies have been listed in the WinExport database that is accessed by 1,200 Canadian trade staff in Canada and abroad. These Yukon companies have also received notification of available trade documents, international trade statistics, regulatory information, trade leads and market studies through the Fax Back systems implemented by International

Markets and Trade Team, and have taken advantage of the trade programs offered, both domestically and in conjunction with international trade shows.

SCIENCE AND INNOVATION TEAM

In the spring of 2001, the Pacific Agri-Food Research Centre (PARC), in collaboration with the Agriculture Branch, was funded by the Yukon CARD program to undertake a study in technology transfer involving the application of scheduled irrigation and nutrient inputs to Yukon horticultural crops. An irrigation system was set up at the Takhini Valley Demonstration Site in June 2002, alongside the Agriculture Branch's other agricultural research plots, and study trials were run during the 2002, 2003 and 2004 growing seasons. The study, entitled "Optimizing Irrigation and Nutrient Inputs to Yukon Crops," was led by soil scientist Dr. Denise Neilson, with the support of Scott Smith (soil scientist) and Dr. Peter Parchumchuk (agricultural engineer), all from the Pacific Agri-Food Research Centre in Summerland, British Columbia. Such irrigation systems are now commonly used by the tree fruit industry and grape growers in the Okanagan. Further information on this study can be found on page 21.

The impacts on permafrost conditions from clearing land in the Klondike Valley continued to be monitored between 2002 and 2004, as part of a long-term program now in its 12th year. In addition, the impacts of snow depths on winter soil temperatures in the Takhini valley continued to be studied in collaboration with Dr. Chris Burn of Carleton University. It is known that winter soil temperatures are important for understanding the survival of legumes and some grasses in the Whitehorse area. As well, reduced snow loads allow soils to reach very low temperatures, which can damage root systems.

Finally, work continues on both detailed and generalized soil maps of the Yukon. Local soil consultants received funding under AAFC to revise the soil landscape map, based on new information collected over the last five years by the Yukon government and other organizations.

In November 2004, a major report entitled "Ecoregions of the Yukon Territory: Biophysical properties of Yukon landscapes" was published by Agriculture and Agri-Food Canada. This document summarizes the natural resources of the Yukon, including descriptions of the geology, soils, permafrost, vegetation and wildlife, and is richly illustrated with colour photos from around the territory. The publication is available on CD from the Mining Records office (the map office) in the Elijah Smith Building in Whitehorse.



INDUSTRY ASSOCIATIONS

YUKON AGRICULTURAL ASSOCIATION

The Yukon Agricultural Association (YAA) is a non-profit organization created to protect the interests of the agricultural industry in the Yukon and to promote its development. The association works closely with the government to achieve its goals. It has members around the Yukon, and an office in Whitehorse. YAA efforts between 2002 and 2004 were devoted to the following initiatives.

- Enhancing public education and awareness about the association and the agricultural industry.
- Administering the Klondyke Harvest Fair program.
- Fundraising through membership sales, as well as obtaining funds from the Yukon government (for office administration and the Klondyke Harvest Fair), and from the federal government under the Canadian Adaptation and Rural Development Fund II and the Agri-Food Awareness Promotion Program.
- On behalf of the industry, lobbying the federal government for transition funding under the Agricultural Policy Framework and administering projects that met Agricultural Policy Framework objectives.
- Attending numerous meetings and reviews on issues and concerns surrounding the agricultural industry, including the Canadian Farm Business Management Council, Agricultural Policy Framework Advisory Committee, and agriculture and grazing lease policies evaluations.
- Participating in events, including the annual agricultural symposium, trade shows and agri-food celebrations.
- Fostering circumpolar awareness among members.
- Attending and presenting at the 5th Circumpolar Agriculture Conference held in Sweden in late September 2004.

The Yukon Agricultural Association can be contacted at:

203-302 Steele Street, Whitehorse, Yukon Y1A 2C5

Phone (867) 668-6864, Fax (867) 393-3566

admin@yukonag.ca, www.yukonag.ca

YUKON GAME GROWERS ASSOCIATION

The Yukon Game Growers Association supports and promotes the game farming industry. In the Yukon, there are five active elk farms and one bison ranch. The association is a member of the Canadian Cervid Council and also remains in contact with the Alberta Elk Commission.

In the past, elk and bison farmers in the Yukon have relied on marketing their offspring as breed stock. The Yukon is well known for its quality genetics. However, due to international and national events outside of the Yukon's control, markets for live game-farmed animals have almost disappeared. With borders closing to the United States and Korea, even elk velvet antler is at an all time low price. Local game farmers have turned to local meat sales to keep their operations afloat and, of course, keep up with the constant feed costs.

There is a strong local market for lean game-farmed meat (elk and bison). Bison and elk meat is sold at farmers markets and through farm gate sales. Many customers appreciate quality game meat that is low in fat and 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.

Many of the elk producers have reduced their herd size as a result of meat sales and have decided not to breed their cows until markets become profitable. As of December 2004, there were less than 100 elk being farmed in the Yukon.

Yukon Game Grower Association
Box 20414, Whitehorse, Yukon Y1A 7A2
Contact: Bill Drury, (867) 668-1045

YUKON 4-H PROGRAM

4-H is an international program for youth ages six to 20 years of age. It is dedicated to developing well-rounded, responsible and independent citizens. "4-H" stands for head, heart, hands and health, which is the members' pledge to their club, community and country.



Celine Skerget and Toby Reams, Watson Lake 4-H club, presenting at the 2004 Circumpolar Agriculture Conference in Sweden.

The Yukon 4-H program began in 1981 in Whitehorse, with the establishment of the horticultural and beef club. Today, 4-H Yukon oversees the activities of three clubs in Dawson City, Whitehorse and Watson Lake. Two of these clubs are structured as multi-clubs, allowing any number of projects to be pursued by members while still providing a central base where leadership skills are practised. Recent projects have included themes such as dog, horse, llama, rabbit, swine, skipping, outdoor living, and model airplane building. The third club is devoted entirely to horses. In recent years, a Cloverbud project was formed, tailored to six- to eight-year-olds. It introduces the participant to 32 different projects. Two of the clubs in the territory use the Cloverbud project.

4-H Yukon holds regular teleconference meetings, sponsored by the Agriculture Branch, to enable the leaders and members to do business, deal with issues, and plan and coordinate events such as the territorial public speaking competition held each year.

Recent highlights of the 4-H Yukon program include many significant travel and learning opportunities for members, such as attending:

- the Circumpolar Agricultural Conference in Umea, Sweden;
- the northern British Columbia 4-H daze (safety) camp in Farmington;
- the Rural Urban Connection in Kelowna (one week);
- the British Columbia 4-H public speaking (held in a different location each year);
and
- the British Columbia Youth Action in Naramata (one week for 14- and 15-year-olds).

4-H Yukon

22 Liard Road, Whitehorse, Yukon Y1A 3C4

Contact: Sylvia Riems, (867) 456-2946

GROWERS OF ORGANIC FOOD YUKON

Growers of Organic Food Yukon (GOOFY), a local chapter of Canadian Organic Growers, formed in January 2003 to provide an opportunity for farmers and gardeners interested in growing organically to share information and resources.

The core group is composed of seven organic farms near Whitehorse, but there are gardening and landscaping members, as well as other farming members from as far north as Dawson and as far south as Atlin.

Many GOOFY members are also members of World-Wide Opportunities on Organic Farms (WWOOF) Canada and enjoy sharing the organic farm lifestyle with volunteers from all over the world. As a group, members are interested in food security and ensuring the availability of local food.

Projects that GOOFY members have been involved in, or will be involved in, include:

- studying the feasibility of a community vegetable storage facility;
- marketing and providing information on local food production;
- listing local organic producers;
- creating educational curriculums on local, organic agriculture;
- studying green manure growing in cold climates;
- supporting community agriculture projects;
- supporting Willing Workers on Organic Farms in Canada; and
- participating in Slow Food.

Growers of Organic Food Yukon
Box 164, Carcross, Yukon Y0B 1B0
Contact: Heidi Marion, (867) 821-4003



Garrett Gillespie and pigs at Wild Blue Yonder Farm, Carcross.

MARKETING AND PUBLIC AWARENESS

FALL HARVEST FAIRS

The Klondyke Harvest Fair is the major annual public awareness initiative of the Yukon Agricultural Association. The fair is held over a weekend in August at Rotary Peace Park in downtown Whitehorse. The bench show is a major attraction for both exhibitors of crafts and agricultural products, and the thousands of people attending the fair. In addition to the bench show, there is a farmers market, midway, livestock display, entertainment and food concessions.

Other smaller fairs also took place between 2002 and 2004. The Watson Lake fall fair has been an annual event in the community since 1994. As well, fall fairs were held in Carmacks, Mount Lorne, Dawson City and Faro. In 2002 and 2003, Mayo held a garden and greenhouse competition and a fall pig roast.

MEDIA COVERAGE

Media coverage concerning agriculture and related events in the Yukon has been relatively consistent from 2002 to 2004. Several important topics were covered via different mediums.

In 2002, the *Yukon News* and the *Whitehorse Star*, both Whitehorse-based newspapers, as well as radio stations CBC, CKRW and CHON, addressed local concerns such as game farming and animal ownership issues and their implications regarding the *Wildlife Act*. Organic farming in the north was also reported. The Dawson City-based newspaper, the *Klondike Sun*, discussed the national Agricultural Policy Framework for its readers. Also, the October issue of *Up Here* magazine explored the Carmacks Community Gardens and its growing interest amongst First Nations of the area. At the national level, droughts in Alberta, Canadian wheat export, and the current situation of young Canadian farmers all made the headlines.

Some of the main issues regarding agriculture discussed in 2003 by local media were game farming and wildlife privatization, gardening and farming in the north, the Agricultural Policy Framework, chronic wasting disease, the farmer of the year award, the North of 60° Agriculture Conference, and bison research in the territory. Interesting statistics regarding Yukon horse populations were also made available.

At the national level, the bovine spongiform encephalopathy or mad cow crisis devastated the Canadian meat market, greatly affecting beef export, primarily to the United States and Japan. This, in turn, affected the entry of Canadian cattle into Alaska via the Yukon. The tainted meat predicament called for federal assistance in the form of mad cow aid to help farmers, particularly in Alberta. Furthermore, articles and broadcasts regarding the World Trade Organization's agenda and agriculture subsidies, the modernization of pesticide legislation, and the growing interest in agrotourism were also reported.

New subjects discussed in 2004 within local media sources included the Canadian Agriculture Income Stabilization program, disease transmission issues, sustainability of farming in the north, and the 50-year anniversary of the Pelly Farm, owned by the Bradley family. Nationally, BSE continued to affect meat export and sales, resulting in a massive cattle cull. The avian flu scare also greatly stressed the poultry industry, prompting the World Health Organization to develop a human vaccine for certain strains of the flu as a precautionary measure.

Quarterly newsletters as well as several radio interviews by the Agriculture Branch and the Yukon Agricultural Association continued to significantly increase awareness of the state of the agriculture industry in the Yukon.

APPENDIX 1: PUBLICATIONS

Agriculture Branch, Department of Energy, Mines and Resources. *InFARMatIon* (Quarterly Bulletin). Compiled and edited by T. Hill, M. Ball and D. Lacroix.

Beckman, D. et al., 2002. *Yukon Agriculture State of the Industry, 2000-01*. Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon.

Hill, T. and Ball, M., 2002. *Yukon Agriculture Research and Demonstration, 2001 Progress Report*. Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon.

Hill, T. and Ball, M., 2003. *Yukon Agriculture Research and Demonstration, 2002 Progress Report*. Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon.

Hill, T. and Ball, M., 2004. *Yukon Agriculture Research and Demonstration, 2003 Progress Report*. Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon.

Yukon Bureau of Statistics, Executive Council Office, 2003. *Survey of Yukon's Horse Owners and Horse Boarding Operators*. Prepared for the Agriculture Branch, Department of Energy, Mines and Resources, Government of Yukon.



**GROWN IN THE
YUKON**



Agriculture and
Agri-Food Canada
Market & Industry
Services Branch

Agriculture et
Agroalimentaire Canada
Direction Générale des Services
à l'Industrie et aux marchés

Yukon
Energy, Mines and Resources

