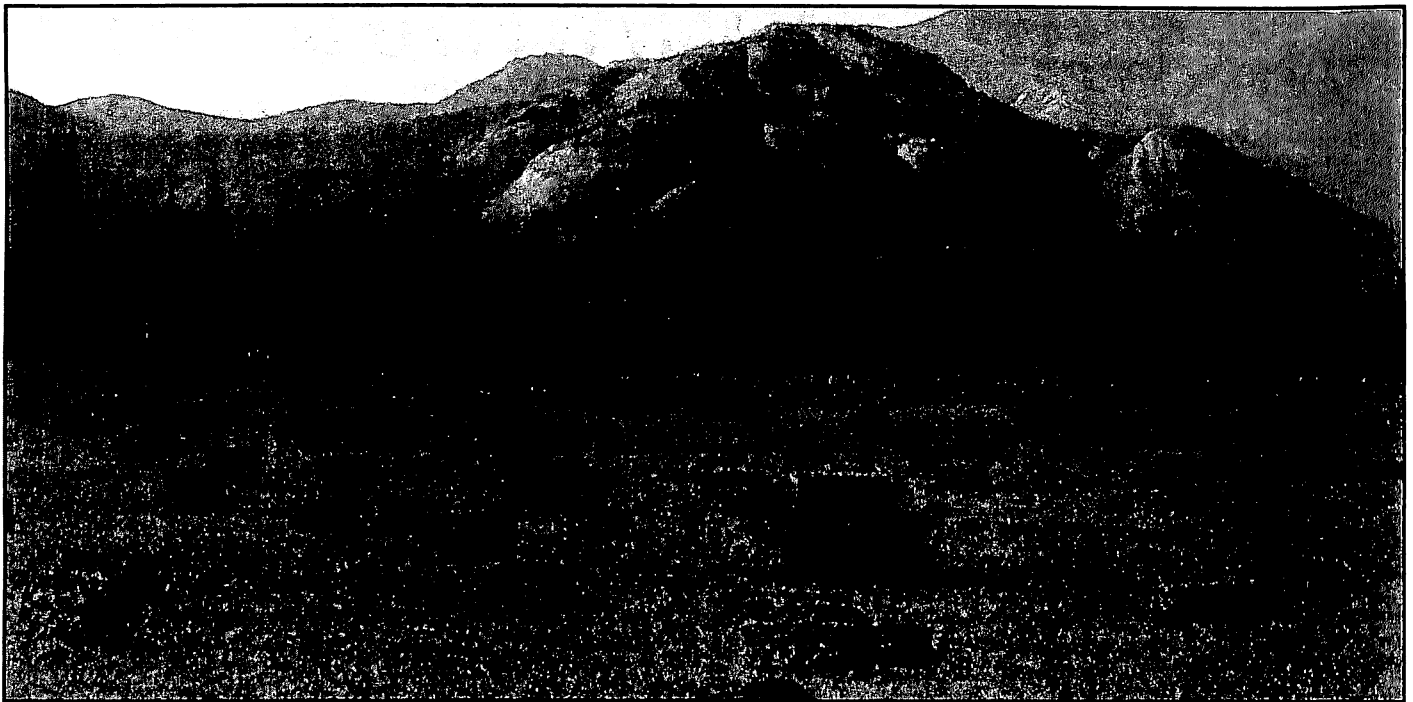


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# AgriScience

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# Agricultural Development in the Yukon

By Scott Smith, P.Ag., and Rodney Dlugos, P.Ag.

## A New Agriculture

Mention the Yukon to most southern Canadians and it conjures up images of long, cold winters, gold mining or big game hunting. Others may think of vast regions of mountainous wilderness — just about anything but agriculture! Yet, at a time when the existence of the industry seems threatened in many of the traditional agricultural areas of Canada, a small group of hardy Canadian entrepreneurs is shaping a new agriculture in Canada's far northwest.

The "globalization" of world commerce and the political changes in the former Soviet Union have meant that northern Canadians are more than ever looking to their circumpolar neighbors for business and social contacts. This is especially so in agriculture where climate, soil and transportation factors are often more alike among circumpolar countries than among the regions of each nation. It is these similarities and the shared experiences of each nation on which Yukoners hope to cash in.

The Yukon Agricultural Association, which represents the 100 to 200 agri-food businesses in the territory, sees more appropriate technologies outside our national borders. Looking to Iceland, Greenland, Scandinavia, Russia and Alaska for equipment, genetic materials, production methods, and even future trade opportunities, led to the proposal to coordinate and host the 1st Circumpolar Agricultural

Conference scheduled for Whitehorse from September 26 to October 2, 1992.

## The Yukon Agri-Food Industry

Yukon's agriculture is different from that in the rest of Canada. It is agriculture which looks more old than new. It is an industry based on smallness, not bigness. It is built on low levels of inputs, oriented to the local economy and strives to be sustainable. In some cases, it uses the very latest innovations in technology; in others, the methods of generations past.

The goal of the Yukon agri-food industry is to reduce dependence on imported food by the territory. At the peak of the Klondike gold rush almost 100 years ago, and with a population about the same as in the territory today (30,000) the Yukon produced enough food to essentially feed itself. With the end of the gold rush, a declining population, and the advent of modern transportation systems, Yukon's initial agriculture disappeared. Today, in a very different and competitive world, it is reappearing and striving to diversify an economy which is dependent on mining and tourism.

Yukon agri-food ventures include grass forage production, cereals (oats and barley), honey, grass sod, bean sprouts, market gardening, production of native grasses, game farming (elk, reindeer, musk oxen), and wild and cultivated berry processing.

There is a limited amount of traditional livestock production, mainly poultry and a few cattle and sheep. The growing season for conventional agronomic crops is less than 100 days. The long daylight hours accelerate plant growth in a short but intense growing season. Precipitation is low, soils are generally low in available nutrients and, perhaps most difficult of all, the transportation, storage and service infrastructure for agriculture which southern farmers take for granted, is only just developing. Competitive advantages are found in the production of climatically-adapted commodities. Hence, game farming and the production of native plant species for revegetation and reclamation hold significant potential. Specialty greenhouse goods and fresh vegetables in season are of superior quality to those shipped from the south. Over a quarter of a million travellers pass through Whitehorse each summer, many on their way to and from Alaska. They represent a ready market for the products grown under the midnight sun.

Because of recent rapid growth, the exact size of Yukon's agriculture industry will only be known with the publication of the 1991 census information later this year. It is estimated that about 4,000 hectares of land is under cultivation, most which is in forage production. Grass hay (mainly brome grass) and greenfeed oats and barley are sold as feed for horses used in the outfitting business and to supply a half dozen elk farms in the

Whitehorse area. Bromegrass yields and quality are equivalent to that grown in more southerly locations. Yields of up to 10,000 kilograms per hectare can be obtained under irrigation. Hay typically sells for \$4.00 to \$5.00 per 25 kilogram bale. Such is the advantage of living so far from the main forage producing regions of the country.

Typically, a Yukon farm might be located 20 to 50 kilometres outside of Dawson City or Whitehorse (the two largest communities in the territory), be less than 10 years old, less than 75 hectares in size with perhaps 50 hectares cultivated, and be outside of the local power grid. The home is heated by wood furnace. Solar power is used to charge batteries for everything from the home computer, the satellite telephone system or, as in one case, an entire irrigation system. In some ways, it is the best of both worlds. Much of the family income may be derived from off-farm work to provide a rural lifestyle with a home-based business of working on the land to produce food and feed for the local community.

A thriving horticulture industry has developed in recent years. Throughout the Territory, between 50 and 100 hectares of land are in vegetable production with an additional 10,000 square meters of greenhouse production. A good deal of this is for home consumption; however, most areas have a farmers' market to absorb the excess. Bedding plants are a major product for many commercial greenhouse operators.

## Industry Support

The Government of Canada and the Yukon Territorial Government have been strong supporters of developing a self-reliant and sustainable agri-food industry in the Yukon. Government support for these ventures has come in various ways, but there is no special production or market control.

The Yukon Territorial Government established an Agriculture Branch within the Department of Renewable Resources in 1986. The Branch, directed by David Beckman, provides a full range of agri-food extension services and was instrumental in drafting "Agriculture For the 90s: A Yukon Policy." The Policy was released in November 1991 and outlines the scope of government support for extension services, regulations and land disposition. The role of the Agriculture Branch is clearly recognized in the new Policy:

"The Agriculture Branch will encourage the development of various sectors: livestock, forage, grain and vegetable crops. The Branch will provide for sustainable use of resources by assisting in designing conservation measures for farms. It will provide many

other forms of assistance, including help in the development of markets and infrastructure, financial and farm management counseling, and support for animal husbandry. The Branch will also develop policies, regulations and inspection services to ensure safe, healthy products for the Yukon public."

A homesteading program has been in effect since 1981 and has provided land to Yukon residents for the cost of development. Planning is underway for new legislation on animal protection, contagious diseases and environment (pesticides), as well as a review of the existing game farming policy.

Indian and Northern Affairs Canada has overall federal responsibility for territorial development. Recently, a new cost-shared, five-year Economic Development Agreement was signed with the Yukon. The Agreement identifies four priority areas of development: mining, renewable resources (in which agri-food is included), tourism and small business.

Agriculture Canada's Agri-Food Development Branch regional office in Edmonton has the department responsibility for agri-food development in the territories. A Senior Development Officer in Edmonton represents the department on the Yukon's Agricultural Planning Advisory Committee (APAC), provides input into the federal-territorial Economic Development Agreements and, in general, liaises with the Governments of the Yukon and NWT in agri-food matters.

At the request of the Yukon Territorial Government, the Research Branch of Agriculture Canada established a Yukon Soil Survey Unit under the Land Resource Institute (now the Centre for Land and Biological Resources Research) in 1983. A pedologist, assisted by contractors and summer employees, prepares surveys to identify the agricultural capability of lands in the Whitehorse and Dawson areas and undertakes field studies in soil fertility. The office also administers plant health and crop inspection services on behalf of Agriculture Canada's Food Production and Inspection Branch. Staff of the Soil Survey Unit are housed by the Yukon Territorial Government and work in cooperation with the Agriculture Branch to provide extension services to Yukon farmers on soil and crop-related matters. The Farm Credit Corporation is also actively involved in farm lending in the Yukon.

Yukon producers have sourced the Crop Development Fund (CDF) and, most recently, the Canadian Agri-Food Development Initiative (CAFDI) for development assistance. These national Agriculture

Canada programs have provided funding to:

- Demonstrate the effect of Yukon farm management practices on yields, income and quality for grain, forage, vegetables and potatoes,
- Determine commercial adaptability of various agricultural and horticultural crops in the Yukon,
- Develop a Yukon Crop Guide which details appropriate crop varieties, cropping practices and farm management, and,
- Organize a circumpolar agricultural conference to be held in Autumn 1992 aimed at addressing global food production challenges in northern climates.

## 1st Circumpolar Agricultural Conference

The initiative taken by the Yukon Agricultural Association to organize the 1st Circumpolar Agricultural Conference has received support from the federal, territorial and municipal governments. The Conference is scheduled for September 26 to October 2, 1992 in Whitehorse and will provide an opportunity to exchange information and establish contacts with participants from other northern regions (including the Nordic countries, C.I.S. and Alaska). The concept has been in the works since 1990, the final arrangements are now being made. The overseeing body for the Conference, the International Board of Advisors, is comprised of 17 senior industry and government officials representing the nine countries involved. The Conference theme is "Opportunities in Diversity to Meet Global Change" and will feature sessions and tours focusing on circumpolar agri-food research, production, market development and policy development. The organizers have issued a call for papers and received abstracts throughout the month of February. The Conference promises to be one of the most unique and thought-provoking functions of 1992.

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