InFARMation

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Message From the Agriculture Branch

As usual, we are experiencing a weather roller coaster to get the growing season underway. I'm writing this after two days of wet snow in June that had everyone but hay producers complaining about cold. Actually, they complained about the cold as well, but the amount of moisture was so timely for crop growth and for irrigators it was like money falling from above. Hopefully most of you had your crops seeded and gardens protected.

There are a few new programs and committees that we have been working on over the past few months that I would like to mention. A Wildlife Damage Compensation Program was authorized over the winter to assist field crop producers to deal with crop and fencing damage due to predation by wild deer, elk, bison or moose. Farmers that incur over $1,000 in damage may be eligible for compensation of up to 80% of verified losses. The compensation program is designed to work together with the recently announced Wildlife Damage Prevention Program that provides fencing and deterrent assistance to farmers who have a documented need for crop protection from the wildlife species named above. Details on both of these programs can be found on the Agriculture branch website www.emr.gov.yk.ca/agriculture.

To assist with compensation claims for wildlife damage, an evaluation committee needs to be formed. The branch will be seeking the participation of four industry members involved in field crop production (2 committee members and two alternates) to help determine crop values and production levels during a claim year. A letter will be coming out soon seeking expressions of interest from producers willing to assist in evaluation of claims.

New industry representatives have been nominated for the Agriculture Industry Advisory Committee that provides the Yukon and federal governments with feedback on policy and program development. From the Yukon Agricultural Association the representatives are Dave Andrew and Ralph Mease (Mayo), Yukon Game Growers are represented by Wayne Grove, Growers of Organic Food Yukon, Sheila Alexandrovich; and the Fireweed Community Market Society has Rosa Brown as its representative. Claudia Carlson (Dawson, Haines Junction) is the alternate representative.

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Yukon
Energy, Mines and Resources

Directors Message Continued...

A new working group was formed this spring to look at meat processing infrastructure in the Yukon. This group is looking at the steps required to develop both white and red meat infrastructure that meets regulatory requirements and is sustainable given the size of the industry. Industry representatives on this group include Cliff LaPrairie (bison) and Bill Drury (beef & elk) from the Game Growers; Leslie Peters (poultry) and Susan Ross (poultry and goats) from Growers of Organic Food; Dave Andrew (beef) and Mike Blumenschein (president) from YAA; and Jonathan Lucas, who manages Icy Waters which operates a federally inspected fish processing facility.

These people represent the industry on these groups and committees and I encourage all of you to make your views known to them or to us on any of these issues.

Have a great summer!

Tony Hill
Director, Yukon Agriculture Branch

Agriculture Land Titles Issued from 1998-2007

10 year summary

Total titles issued: 109
Total area titled: 4096 ha
Average parcel size per title: 38 ha
Average number of titles issued per year: 11
Average number of hectares titled per year: 410 ha

Year	Number of titles issued	Total Area in hectares (ha)	Annual Average Parcel size (ha)
1998	13	657	51
1999	9	446	50
2000	8	241	30
2001	11	328	30
2002	15	350	23
2003	14	490	35
2004	9	371	41
2005	10	528	53
2006	7	249	36
2007	13	437	34

by Edward Lee, Agriculture Land Coordinator

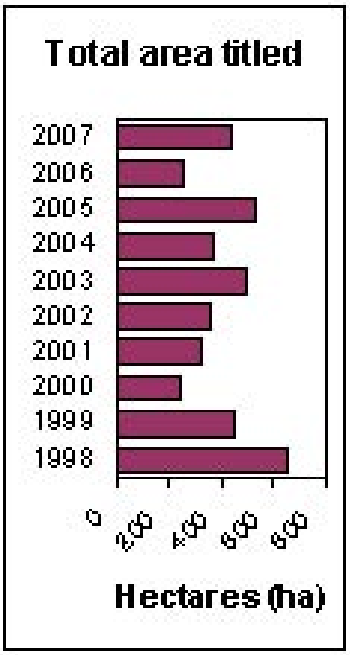
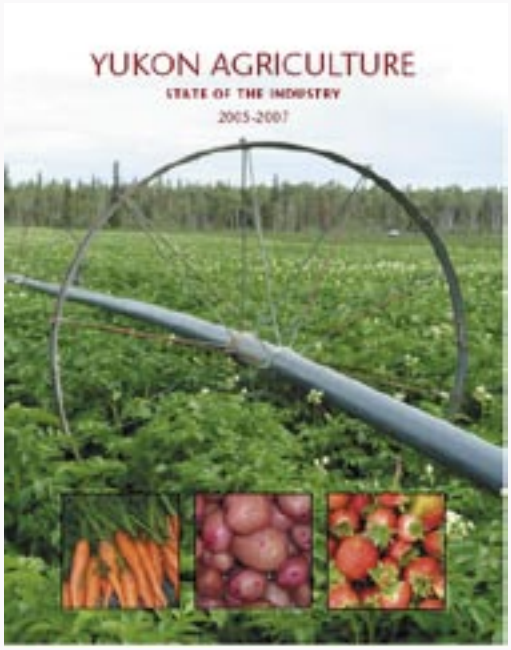


Photo left: Assistant Deputy Minister Jeff O'Farrell drawing the first successful applicant from the Haines Junction Agriculture Land Lottery. The lottery was held on May 30th to dispose of 3 lots from phase one of the Haines Junction Agriculture Subdivision. There were 21 applicants for the lottery.

State of the Industry for 2005-2007



The *2005-2007 Yukon Agriculture State of the Industry* report was released in April 2008.

This comprehensive report discusses the results of the *2006 Census of Agriculture* and incorporates some of the findings from the *2008-2012 Yukon Agriculture and Agri-Food Multi-Year Development Plan.*

Over the 2005-2007 period, the value of production remained around $4 million, a similar figure to the last census. The value of farm capital has increased substantially to $66 million.

Other industry highlights include land released through agriculture land lotteries along Gentian Lane and near Haines Junction, the opening of the Fireweed Community Market, the release of the new Agriculture Policy, the completion of the *2006 Agriculture Census*, the purchase of a mobile abattoir, and the release of the *Multi-Year Development Plan*.

Copies of the report will be available online at *www.emr.gov.yk.ca/agriculture*, at the offices of the Agriculture Branch, and the Yukon Agricultural Association.

Growing Forward

What is Growing Forward?

Growing Forward is the federal, provincial and territorial policy framework that is replacing the current *Agriculture Policy Framework* that delivers cost shared programs in the Yukon aimed at agriculture industry development.

Growing Forward builds on the business risk management suite of programs implemented in April 2008. Significant progress has been made on the *Growing Forward* framework, which supports the vision of a competitive and innovative sector that responds to society's priorities and proactively manages risk. The *Growing Forward* framework seeks to position all participants of the sector, including new and young farmers, to succeed in a rapidly changing agriculture and agri-food environment. Flexibility is an important element of this framework, enabling governments to offer farmers and other agri-food businesses programs designed to meet today's industry needs.

Federal, provincial and territorial agriculture ministers have agreed to seek the necessary authorities to finalize the multilateral framework agreement for signature at their July annual meeting. The Annual Meeting of Agriculture Ministers will be held in Quebec City July 8-11. *Growing Forward's* new programs are scheduled to be fully implemented in the Yukon by April 1, 2009.

For more information on Growing Forward visit: www.agr.gc.ca/growingforward.

How Canadian is our food?

Defining: "Product of Canada" and "Made in Canada" for food labels and advertising

Canadian grocery store shelves are lined with food products marked "Product of Canada" or "Made in Canada." Shoppers recognize these labels and seek them out. Many assume that products bearing these labels are grown or caught, processed and packaged in Canada.

The federal government first introduced these Canadian content food labels in the early 1980s. The guidelines, which have not been altered since their introduction, require two basic criteria be met before manufacturers can use the "Product of Canada" and "Made in Canada" labels:

- the last substantial change of the goods must have occurred in Canada; and
- at least 51 per cent of the total direct costs of producing or manufacturing the goods are Canadian.

However, in the past twenty years, Canada's food supply has become increasingly global in nature. The way food is produced, processed, packaged, distributed and sold has changed significantly. This means a product could be grown in one part of the world, processed in another, be packaged here in Canada, and yet qualify to use one of these labels.

Canadians have told us that allowing claims such as "Product of Canada" on food products that are manufactured in Canada but contain only 51 per cent Canadian "value-added" may not be consistent with what they understand or expect.

Not surprisingly, Canadians are confused, frustrated and have lost trust in these food labels.

The Canadian government has developed a plan to update and redefine the familiar "Product of Canada" and "Made in Canada" food labels to better reflect the true origins of products in the modern marketplace.

This is part of the *Food and Consumer Safety Action Plan*, a comprehensive series of initiatives aimed at establishing tougher regulation of food, health and consumer products. It is a key federal responsibility to ensure the foods and products that Canadians buy are safe, yet federal laws and guidelines on food and consumer products have been untouched for decades. The Canadian Government has taken action to introduce the *Food and Consumer Safety Action Plan*, which is designed to improve our safety and our health, make Canadian brands more competitive among global consumers, and boost confidence at home.

Product of Canada

The proposed guidelines for the use of this label shift the definition of "Product of Canada" from the direct cost or value of a product to focus on the contents and ingredients of a product. To use the "Product of Canada" label, "all or virtually all" of the product's contents must be Canadian. Therefore, all significant components, ingredients, processing and labour used to make the product would need to be Canadian. There would be very little or no foreign content, with the exception of minor additives or spices which may not be available in Canada.

Made in Canada

The term "Made in Canada" with a qualifying statement could apply to virtually every other product produced in Canada. Therefore, if a food product is manufactured or processed in Canada, regardless of the origin of the ingredients, it could use a "Made in Canada" label. Products would use either "Made in Canada from domestic and imported ingredients" or "Made in Canada from imported ingredients." This recognizes the importance of the value added by Canadian ingredients and processing and helps consumers identify when they are supporting Canadian jobs and the Canadian economy.

Highlights of the legislation include:

- cracking down on negligent manufacturers, importers and retailers who knowingly endanger their customers;
- a new power for the federal government to order recalls of unsafe consumer products;
- dramatically increasing fines for violation; and
- providing better safety information for consumers.

This article was adapted from Canada's *Food and Consumer Safety Action Plan* initiative on Canadian Food Labeling. More information on this initiative and the Food and Consumer Safety Action Plan is available at:
www.healthycanadians.ca.

Canada

Northern Agriculture

Defining Yukon Grown

At a recent meeting of the Agriculture Industry Advisory Committee the topic of what agriculture products can be labeled as “Yukon Grown” or “Grown in the Yukon” was discussed. At the conclusion of a hearty discussion, the group reached a general consensus on definitions for “Yukon Grown” or “Grown in the Yukon” for livestock and food crops.

Yukon’s Agriculture Branch is looking for public comment and feedback on the definitions developed by the advisory committee for “Yukon Grown” or “Grown in the Yukon”.

The first definition is for the sale of livestock and would be defined as follows:

“Livestock or the meat or meat product derived from livestock that has born and raised in the Yukon, and/or has spent a minimum of 51% of its life in the Yukon and/or has lived in the Yukon for no less than one complete calendar year.”

The second definition is for food crop production, and would be defined as:

“Plants or plant material and the products derived from these plants that originated from a Yukon source and/or were imported from an outside source and was grown in the Yukon for no less than 51% of its life cycle and/or continues to grow and be nurtured in the Yukon for no less than one complete year.”

Please provide any comments or feedback to Kevin Bowers, Agriculture Development Officer at kevin.bowers@gov.yk.ca or phone 867-667-5838.

Photo above: Enjoying all the shopping, eating and socializing at the Fireweed Community Market. The Fireweed Community Market is held every Thursday from 3 to 8 pm in Whitehorse’s Shipyards Park. Photo taken by Jodi Crewe, Market Manager.

“Localvores”

Definition: Those who prefer to eat locally grown and produced food.

As vegetables from Yukon gardens and greenhouses start coming to market, more and more localvores have been seen migrating into public places to fill their stomachs with local food. The 2008 edition of the Fireweed Community Market has been very busy and an exciting place to be on Thursdays and is a good place to spot the proud and satisfied Yukon localvore. Localvores are gathering at the market because they can easily purchase their locally produced food, have some dinner and socialize with other localvores while shopping for Yukon made goods. Coincidentally this year’s market has seen an influx of more food vendors for 2008. The Fireweed Community Market is held every Thursday from 3 to 8 pm in Whitehorse’s Shipyards Park.

Localvores have also been spotted picking up the new *Yukon Farm Products & Service Guide*. The product guide is an excellent source for localvores to find locally produced goods. In turn, by supporting local this ensures the localvore a steady supply of Yukon products.

You can pick up the Yukon products guide at the Fireweed Community Market, Yukon Agriculture Branch office, Yukon Agriculture Association or online at http://farmproducts.yukonfood.com/index.htm

Don’t let the localvore become endangered....
become one today.

Researching Biochar

Research into Biochar, also know as Agrichar is being conducted across the globe as a way to improve production in soils of poor quality, and to reduce greenhouse gases. The Yukon Agriculture branch research assistant Robert Stilwell, a student of Biosystem Engineering at Manitoba University under the supervision of Agriculture Branch Agrologist Matthew Ball, is in the process of investigating Biochar as a potential amendment for Yukon agricultural soils.

Biochar is a product of the controlled reduction of organic material through the application of heat in an oxygen free environment. The products of this process include black carbon or charcoal. One of the traditional methods of making biochar is to use a kiln to heat the material (preferably wood waste, although any compostable waste could be used) to between 300 and 600°C.

The purpose of amending soils with biochar is to mimic the qualities of anthropogenic dark earth, or Terra Preta, the dark soil found in some areas of the Amazon basin which "contains up to 70 times more black carbon than the surrounding soils" (Glaser et.al., 2001, p.37. *"The Terra Preta Phenomenon"*). Using biochar amendments, we hope to gain the same propensity for retention and availability of nutrients such as nitrogen, phosphorus, calcium and potassium, as well as the better moisture retention and higher pH observable in Terra Preta. Biochar amended soils have been shown to have increased fertility in Japan, Australia, New Zealand and some areas of the South Americas. Studies have shown a 44% to 200% increase in crop production depending on crop type, initial quality of soil and application rate.

It is likely that "due to affinity of biochar for ionic solutes it can in fact be utilized to reduce run-off in agricultural watersheds (Woolf, 2008, p.22. *"Biochar as a Soil Amendment – a review")*. In addition to this, because carbon can improve nutrient availability within soil, it is possible that less fertilization would be required in the first place. Ultimately, as the carbon becomes more loaded with ionic solutes, the amount of fertilizer required to reach target nutrient availability should decrease.

Yukon Conditions:

Yukon soils tend to have low carbon content due to the slow decay of crop material caused by our cold, semi-arid climate. The low carbon content, of northern soils is unfortunate, as it is essential to the production of good high quality topsoils.

Yukon soils traditionally need amendments to improve soil fertility, by either fertilizing with required nutrients and/or amending soils with loam, compost and manure. Where conventional fertilizers are applied to soils, the need for soil carbon is not addressed. In the case of manure, loam and compost, 80% of the carbon added to the soil will be gone in five years. With low carbon levels the total amount of any macronutrient that actually reaches the target crop in an application is limited. There is a bright side: experiments done with biochar suggest that a charcoal treatment can increase growth rate in carbon depleted ground by better than 100%.

The goal of the Yukon Biochar project is to examine if biochar is an effective additive to Yukon soils. The first challenge will be to build a safe operating kiln in order to

• *Continued on next page*

Benefits of biochar

Properties:	Effects:
Increased albedo due to dark hue of biochar material	Increased radiant heat absorption resulting in higher soil temperatures.
Microscopic voids in structure of biochar	Better water absorption, improved aeration and decreased elasticity, resulting in better soil insulation, increased soil moister and easier root growth.
Neutral to alkaline pH	Sweetens soil, pH trends closer to a pH of 7.
Negatively charged boundary of biochar particles	Increased soil cation exchange rates, increased absorption and capture of ions, decreased fertilizer leaching .
Improved habitat for nitrogen fixing bacteria and fungi	Increased levels of nitrogen captured in soil and accelerated symbiotic interaction between fungi and plants.
Trap Carbon/Nitrous Oxides, Methane	Reduce soil outgassing and create a carbon sink that will remain stable for 1000 years or more, resulting in the reduction of yearly greenhouse gasification.

covert organic matter into Biochar. The next challenge will be to take the char and incorporate this into Yukon soils to determine optimum application rate and short and long term benefits on production.

Reduction of Greenhouse gases:

It has been suggested that the use of biochar can be an effective method for the long term fixation of atmospheric carbon. Unlike many other carbon amendments for soil, biochar has been proven to be highly stable in soils compared to composts. Research by Kimetu et. al., 2008, p.403, *"Reversability of Soil Productivity"* stated that conversion of biomass carbon to bio-char carbon leads to sequestration of about 50% of the initial carbon compared with biological decomposition (<10–20% after 5–10 years), therefore yielding more stable soil carbon.

With growing concern regarding CO^2 as a greenhouse gas, the idea of being able to assist in reducing carbon emissions through the production of char is attractive (in fact Australia has instituted a program for carbon credit trading of soil carbon at a rate of $25 AUST. per tonne of materials above base soil carbon grade). In addition to sequestering carbon, biochar has also been shown to decrease the rate of nitrous oxide release from soils by as much as 50% at 20t/ha (nitrous oxide is about 250 times more harmful as a greenhouse gas than carbon dioxide) and stop the emissions of methane from soils.

Agriculture Demonstration Day and Barbeque

Date: Wednesday August 13, 2008
Time: 10:00 am to 2:00 pm

The Agriculture Branch is celebrating the 20th anniversary of its research farm located in the Gunner Nilsson and Mickey Lammers Research Forest just north of Whitehorse. The initial thrust of the research farm when the gates opened in 1988 was to test a wide variety of crops for suitability and to act as a demonstration site for Yukon Agriculture. Over the years the site has continued crop variety assessments along with evaluations of soil conservation techniques, soil enrichment practices and irrigation optimization. Today the research and demonstration continues in the following key areas:

- Variety evaluation and demonstration
- Soil enhancements and management
- Technologies and management practices
- Economics of production

For 2008, the Agriculture Branch research and demonstration projects are as follows:

- Raspberry orchard fertilizer, yield and economics evaluation
- Forage demonstration
- Biodegradable mulch evaluation
- Oilseed evaluation
- Vegetable yield assessment
- Biochar research
- Smooth bromegrass economically optimum nitrogen rate study

Please come join us in celebrating 20 years of research and demonstration and take a tour of the research farm. We will be barbequing Yukon Grown, Yukon Inspected and abattoir processed bison burgers. With some good warm weather there also may be raspberries to pick.

The site is located on the corner of the North Klondike Highway and the Hotsprings Road. For more information contact the Yukon Agriculture Branch at 867-667-5838.

Hope to see you there.
Agriculture Branch Staff

Announcements

Fireweed Community Market

The 2008 season for the Fireweed Community Market is in full swing. The outdoor market is held every Thursday evening continuing through to September 11th, 2008. The market is located in Shipyards Park on the riverfront in Whitehorse. The market will be held rain or shine from 3 pm to 8 pm.

Abattoir

The mobile abattoir is available for inspected slaughter services of cattle, hogs, bison, elk, goats and sheep. The mobile abattoir can also provide inspected transportation of the meat to a processor for further processing. To book the mobile abattoir or for information phone Art Lock at 867-393-4978.

Mark your calendars

The 21st Annual North of 60° Agriculture Conference is going to be held Saturday, November 1st, 2008 at the Westmark Whitehorse.

Topics this year include farm finance, strategies for overwintering forage, understanding fertilizers and horse care.

Classified

for sale

Aluminum Irrigation Pipe. 1,320 feet of 3-inch pipe, half of it with risers and sprinklers. 40-foot sections with “band & latch” couplings and a half-dozen elbow and tee fittings. Very good condition. $4500 firm.

PVC Water Supply Pipe. Suitable for drinking water. Good condition. Requires disassembly. 160 feet of 3-inch pipe. $200. 160 feet of 4-inch pipe. $350.

For more information contact:
Rob or Chris
Tel.# 867-393-2929

InFARMation is..

A Government of Yukon newsletter published by the Agriculture Branch of the Department of Energy, Mines and Resources. If you would like to add or remove your name from the newsletter mailing list, comment on an article or contribute a story, please feel free to contact us.

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Online: www.emr.gov.yk.ca/agriculture