

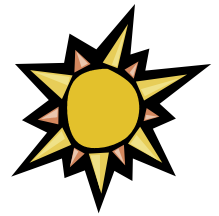


INFARMATION

Yukon Agriculture Branch Quarterly Bulletin

Spring 2007

Volume 20 Issue 1



MESSAGE FROM THE AGRICULTURE BRANCH

Now that the Canada Winter Games are over it's time to turn our attention to spring 2007. All the snow we have had this winter should help a little with spring moisture conditions and the fact that we avoided a mid-winter thaw should help winter survival of perennial crops.

There have been a few staff changes at the Agriculture Branch over the past winter. Matt Ball was successful in the Agrologist position competition so he has moved around the corner in the Branch from the Technician's desk. Matt just returned from six weeks in B.C. where he is finishing up his Masters degree in soil science. We have a new Agriculture Technician, Bradley Barton, who is filling Matt's old position on a casual basis, helping out with the Research and Demonstration report, this newsletter and anything else we can pass his way. Brad is the one facing the front counter as you walk into our office. We also have a new Administrative Assistant, Darlee Norquay, who has accepted a half time position working for the branch in the mornings. Marylynn continues on as our Administrative Assistant in the afternoons, but in the mornings, she works down the hall as Administrative Assistant to the Assistant Deputy Minister, Joe MacGillivray. Congratulations and welcome to our new employees and I know they are looking forward to meeting the people involved in the industry.

Speaking of staff, I noted in the Yukon Agricultural Association spring newsletter that Rose Drury is stepping down from the YAA Executive Director's position. Thanks for all your hard work over the past two years, Rose; it was a pleasure to have worked with you. We look forward to working with Rick Tone who has been hired to fill the position.

The Agriculture Branch has been busy over the winter implementing the 2006 Agriculture Policy. For 1991 Agriculture Policy applicants and agreement for sale holders an option to transfer to the new 2006 policy is now available. This applies if you made an agriculture land application before April 5, 2006, or have an incomplete agreement for sale made previous to April 5, 2006. You may request whether or not to proceed under the provisions of the 2006 policy, if you fit the criteria. If you haven't already been contacted by the Agriculture Branch, please contact us to get the details on the new farm development assistance provisions contained in the new policy.

There are too many upcoming events to mention on this page so make sure to check out the events calendar on the back page of this edition. Best wishes for a warm and productive spring.

Tony Hill
Director
Agriculture Branch

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NORTHERN AGRICULTURE

FIREWEED COMMUNITY MARKET
2006 REPORT

The Fireweed Market ran for a total of 18 weeks last year, beginning May 18 and ending on Sept. 14. Participation and attendance increased steadily over the summer, attracting locals and outsiders, young and old. By market end, we had many regulars and a very predictable 3 to 4 pm rush for fresh produce.

Although we had a core of die-hard market vendors that attended rain or shine, vendor participation did fluctuate somewhat from week to week. We averaged 30 vendors weekly, with a high of 41 vendors on August 10. Naturally, consumer attendance was affected by the weather at times too, but many hardy Yukoners braved the driving rain and frigid wind to support us (our tents sheltered much more than just our wares last season). Based on two counts per night, there was an average of 64.5 people in the market place at any given time. The highest count was 117 consumers on August 3 (week 12).

Besides the wide variety of local art, fresh produce and delicious prepared food, we had entertainment on many occasions, including: the Saba Dance Troupe who never failed to create a festive atmosphere; Nadia Petriw's young talent, and seasoned performers like Annie Avery.

Though young folks are never scarce at the Fireweed Market, kids came from far and wide to enjoy the special Youth Day organized by Ruth Lera on July 13. Along with her vendor scavenger hunt and craft activities to help kids learn more about where their food comes from, many vendors offered special draws and products just for kids that week

and it made for a great success!

Last but certainly not least was the Market finale. You just can't go wrong with great food, door prizes for everyone, and of course... karaoke. Ron Lang led us to a fun-filled, musical end that was certainly enjoyed by all who attended.

We can definitely anticipate an even more successful market season in 2007. Building on last year, we can expect to see more vendors, more customers and God willing.....more sun!

*Fireweed Community Market Manager
Jake Hansen*

EATING LOCAL FOODS



As a child living in southern Ontario most of the food I ate was locally grown. With our own family garden, the neighbour's fruit trees and farms of all types around our town, and Dad's hunting and fishing, we ate very well and mostly organic. Mom took seasonal work in the berry fields and orchards nearby and the family enjoyed fabulous treats and deserts in season. Of course Mom would jam, can and preserve all she could to make the season's bounty last.

As time went by I moved further north and west and my food came from further away. By the time I arrived in the Yukon in 1975 virtually nothing I ate was grown within 1000 miles of here. My first spring in the Yukon saw several road closures on the Alaska Highway, and within three days the territory was out of

fresh milk. I later learned the Yukon has about a two week supply of food on hand at any given time.

My first summer in the Yukon, I eyed my neighbours' garden longingly and he generously gave me a head of lettuce. I ate it on the short walk home and thought it the best veggie I'd had in years, and it was. This was also part of my motivation to become a gardener and a supporter and promoter of locally grown foods.

At the Certified Organic Associations of B.C. conference in Armstrong, Jen Gamble of the Shuswap Eat Local Project (created by Shuswap Food Action), informed our interest group about some ways they are creating an awareness of the benefits of eating locally produced foods. A local chef volunteered to lead local youth in cooking classes as well as preparing appetizers for a local artist's show as part of their program.

The benefits of eating locally produced food are many. It tastes better and it is better for you as it is fresher. Purchasing local foods supports local farm families and builds the local economy. By reducing the freighting of foods we support a clean environment that benefits wildlife. Furthermore; local food helps to preserve genetic diversity.

The Yukon is still far away from the day we can say most of our food is produced locally but if we keep on supporting local farmers, some day we may be a lot closer to sustainability and eating locally may be the norm instead of the novelty.

*Mary Girouard
Rivendell Farms*

NORTHERN AGRICULTURE

NEW, UPDATED FOOD GUIDE TO HELP CANADIANS LIVE HEALTHIER



In early February, Health Minister Tony Clement launched the new 2007 version of Canada's Food Guide - "Eating Well with Canada's Food Guide." The new Food Guide provides the best, and most current information available for eating well and living healthy.

"The Food Guide recommends a careful selection of foods balanced by physical activity," said Dr. David Butler-Jones, Chief Public Health Officer for Canada. "By increasing their levels of physical activity, improving eating habits and achieving healthy weights, Canadians can help ensure good health and prevent many chronic diseases, including some cancers, Type II diabetes, cardiovascular disease and stroke."

For the first time, Canadians can find detailed information on the amount and types of food recommended for their age and gender. The new Food Guide encourages Canadians to focus on vegetables, fruit and whole grains, to include milk, meat and their alternatives, and to limit foods that are high in calories, fat, sugar and salt. Health Canada is also recommending a Vitamin D supplement for Canadians over the age of 50.

Given the growing concern about the rates of overweight and obesity among Canadians, providing advice on the portion sizes and the quality of food choices was a key consideration in the development of the Food Guide. The Food Guide

also emphasizes the importance of combining regular physical activity with healthy eating.

Canadians now have a wealth of information available at their fingertips with an enhanced, interactive Web component. "My Food Guide" will help users personalize Food Guide information according to their age, sex and food preferences, and will also include more culturally relevant foods from a variety of ethnic cuisines.

Health Canada is also developing a specially tailored Food Guide for First Nations, Inuit and Metis people that will be released this spring.

For more information on Canada's Food Guide, please visit Health Canada's Web site. www.healthcanada.gc.ca/foodguide You can also order a copy by calling 1 800 O-Canada (1 800 622-6232). TTY: 1 800 926-9105

*Adapted from Health Canada
News Release 2007-11*



WEATHER REPORT

While the rest of Canada basked in above normal temperatures during 2006 southwest Yukon was the only place in the country that reported below normal temperatures for the year. The Teslin auto station recorded the year as 0.9 degrees below normal while Whitehorse was 0.5 degrees below normal. Other stations recording below normal temperatures for the year include Dawson City airport, Faro, and Beaver Creek. Precipitation was mixed over the Yukon with Whitehorse, Old Crow, Beaver Creek, Burwash and Watson Lake all recording above normal amounts.

Whitehorse, Mayo and Faro reported summer temperatures as just below normal. In Whitehorse we can definitely blame August as both June and July were above normal in temperature. Faro had a cool June and poor Mayo had a cool June and August. The summer saw rainfall being a little more mixed with southern Yukon seeing amounts slightly below normal except for Watson Lake which had only 79% of normal for the summer.

*Bill Miller
Environment Canada*

According to the Environment Canada website we can anticipate below normal temperatures for March-May with normal precipitation for most of the Yukon. As we look ahead to the summer we can look forward to above normal temperatures with above normal precipitation for most of the Yukon.

NORTHERN AGRICULTURE

WILDLIFE CONFLICTS

The following information is provided for farmers in the Takhini Valley and elsewhere in the Yukon who have suffered crop losses due to predation by wildlife. Several farms west of Whitehorse were visited by a large herd of elk this winter and the deer population seems to have been increasing in the area for several years.

Elk and deer damage to crop land and feed storage yards is a very serious problem and the resolution to this wildlife agriculture conflict may vary from prevention to protection.

Prevention of wildlife conflicts through best management practices is probably the most economical and easiest, but will not always stop elk if their food is scarce. Prevention is best described as *not attracting wildlife*; the following is a list of prevention tips:

1. Avoid leaving harvested crops on the field for prolonged periods of time and avoid leaving crops out over winter.
2. Avoid planting new crop types (especially horticultural) in areas of high ungulate concentrations
3. Reduce stacked hay or greenfeed from areas accessible to deer and elk areas
4. Limit livestock management practices such as swath and bale grazing that attract wildlife.
5. Stack bales near human habitation, use farm machinery to prevent access to stacks
6. Clean up spilled grain, loose forage and other food sources that may attract wildlife

If prevention does not work and wildlife conflicts persist, protection is the next step by using fences to exclude wildlife.

Good fences make good neighbors!

Fencing out wildlife driven by hunger is much different from fencing domestic livestock. At some hunger threshold, wildlife may breach almost any fence design. The choice of temporary vs. permanent fences, and electric vs. wire design, is often a compromise between cost and effectiveness.

The cost of the fence installed should be in relation to the reduction in crop losses. For example areas of high value and density may require the selection of a high woven wire fence. A lower cost electric fence may be chosen to protect a hay field or stack.

The Canada–Yukon Environment Farm Plan and Farm Stewardship Programs can provide financial, technical and logistical support to producers affected by nuisance wildlife. Incentive funding of a 30% cost share, up to a \$7000 cap per farm, is available to landowners to help prevent wildlife damage, especially for practices or infrastructure which provide long term solutions. Eligible activities include fencing of feed storage areas and forage buffer strips.

USE :	deer and elk exclusion
WIRE :	7 strands, htsw
*POSTS:	spaced 30 feet
HEIGHT :	84 inches
DROPPERS :	none
*BRACES :	spaced up to 13200 feet (48 per mile)
NOTES :	For permanent stack yards.

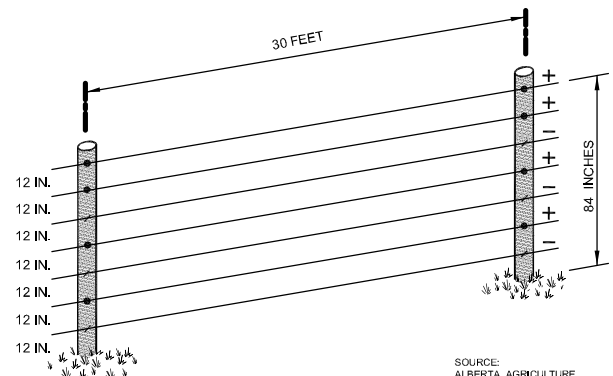
Temporary vs Permanent

A temporary electric fence design used to repel elk and deer from hay stacks is a lower cost option. Eight foot 2x4's spaced about ten feet apart are leaned up against the stack. Seven wires spaced ten inches apart are used. Alternate wires are either charged or grounded. The deer or elk cannot jump over the fence as the top wire is too close to the stack. When reaching through for hay, the animal receives a shock. To increase the fence visibility a poly wire tape (1/2 inch or wider) can be added around the middle. A gate is made by tying the wires off to adjacent 2x4 that can be simply swung away from the stack.

A permanent fence is more effective. For permanent fence designs, woven wire or electric fence are usually used which depends on location resources and cost. Other designs include combinations of wire and electric as well as board designs.

Electric vs Wire Designs

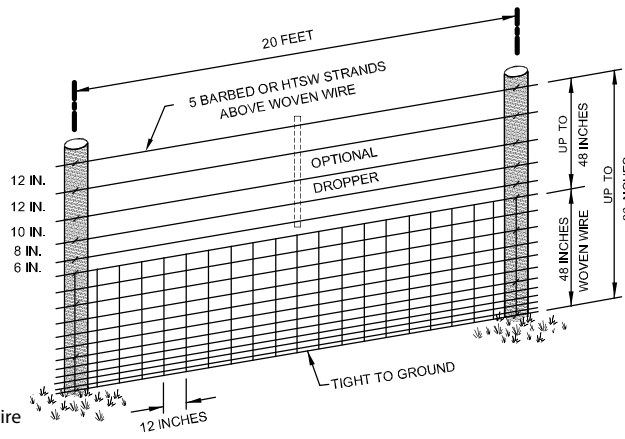
An electric fence (diagram below) is a low cost psychological barrier that may not be 100% effective in high elk pressure areas such as food storage yards. Electric fences have proven successful around



Electric Fencing Design

NORTHERN AGRICULTURE

- USE : deer exclusion
- WIRE : woven, to 47 inches
10 horizontals
12 inch spaced verticals
plus barbed or htsw above
- *POSTS: spaced 20 feet
- HEIGHT : up to 96 inches
- DROPPERS : none
- *BRACES : spaced up to 660 feet
(8 per mile)
- NOTES : A modified design of High Woven Wire Orchard Fence using lower height woven wire with added top wires



Non-Electric Fencing Design

large areas such as crop fields. There are definite cost advantages when fencing these large areas that usually have low to medium elk pressure.

A woven wire fence (diagram above) is a barrier that can be very effective but is more expensive than an electric fence. It is best suited to high-pressure areas such as feed storage yards and/or in areas of high elk populations

Locating Wildlife Fences

Whatever design is used, locating the fence in a way that is difficult for wildlife to approach will enhance its effectiveness. If the ground slopes up to the fence for instance, it will appear taller and be more difficult for wildlife to challenge. If the ground slopes down towards the fence, it may encourage wildlife to jump the fence.

Fencing fact sheets are available from the B.C. Ministry of Agriculture and Lands:

Crop Protection and Wildlife Control Fences: <http://www.agf.gov.bc.ca/resmgmt/publist/300series/307250-1.pdf>

Elk Exclusion Using Woven Wire Fencing: <http://www.agf.gov.bc.ca/resmgmt/publist/300series/307252-1.pdf>

Adapted from: British Columbia Ministry of Agriculture, Food & Fisheries Fencing Fact Sheets and Canada-Yukon Environmental Farm Plan and Farm Stewardship Programs

GRASS FED BEEF

During the Certified Organic Associations of British Columbia 2007 Conference in Armstrong, held the last weekend in February, Charles Ruechel (BSc, Agricultural Sciences) presented some innovative pasture management concepts.

The Vale Farms Grassroots Ltd., a certified organic farm on which Charles was raised and now helps manage, moves their herd on a daily basis from one small pasture to the next. Their pasture management is based on the natural behaviour of herd animals and keeping pastures at their best. They focus on having extremely healthy grass pasture that sustains the organic beef, lamb and other meats that the farm produces.

Large permanent pastures with internal portable electric fencing are used to manage the smaller daily pastures. They have found That it is not necessary to fence behind the herd. The concept of “one plant - one animal - one bite” is the determining factor in the daily pasture size. The grazing herd helps to aerate and fertilize the soil, the field is then left to grow into top quality pasture. The rotation back to the first pasture can take 20 days or more. The pasture’s rest period can also help reduce some herd health problems, such as parasite control. When animals graze by taking the top leaves, some of the roots die off and new tillers (shoots) are encouraged, which increase the density of pasture grass. The dead roots help increase the humus content of the soil encouraging healthy pastures and soil. By repetitive grazing and resting

grassland, the organic matter of the soils increases steadily over time.

Grass fed over grain fed meats are lower in calories and saturated fats but richer in Omega 3 fatty acids, antioxidant Vitamin A, E, B12, B6, Zinc, Phosphorus, Carnitine, co-enzyme Q10, Iron and Beta Carotene. Grass fed meats also provide double the Conjugated Linoleic Acid; a potent defense against cancer and diabetes.

Julius Ruechel, another member of this farming family, wrote a book entitled Grass Fed Cattle that seems to provide a solid reference on the topic.

*Mary Girouard
Rivendell Farms*



SCIENCE & RESEARCH

OILSEEDS UPDATE

In December 2006 the Federal government announced action on the Renewable Fuel Standard to require ethanol and biodiesel blended fuel in Canada. The regulation is to require 5% renewable content in gasoline by 2010 and a 2% renewable content in diesel and home heating fuel by no later than 2012. Also announced was a capital grant program to encourage farmer participation.

Early in 2006 the Agriculture Branch in co-operation with the Energy Solutions Centre and Yukon producers set out to determine the viability of oilseeds for biodiesel in the Yukon. For year one of a four year project, four varieties of oilseeds were tested including two canola varieties, a false flax, and a true flax. It should be mentioned that for this project no GMO varieties were or will be tested. Short season polish canola (*Brassica rapa*) was evaluated against a longer season argentine canola (*Brassica napus*); a long season Flanders flax (*Linum usitatissimum*), and a false flax (also known as gold-of-pleasure) (*Camelina sativa*) were also tested. The canolas are high oil producing crops suited to cooler climates as opposed to some of the other warmer climate oilseeds such as soy. The Flanders flax has health properties and is also a high oil producing crop. The false flax was recommended by Plant Pathologist Richard Gugel, M.Sc. of Agriculture and Agri-Food Canada, because it is a short season, low input crop, deemed suitable for the Yukon.

Experiment plots were set up around the Whitehorse area, and one in the central Yukon. Each variety was set up in small (2x2 meter) plots, with four plots per variety, in a completely random design on irrigated and dryland sites.

The results for the first year were very encouraging, although not without some hardship. The central Yukon site was lost, likely due to a very cunning and hungry ground critter.

Results from the four Whitehorse area sites varied between the dryland and irrigated sites and between varieties.

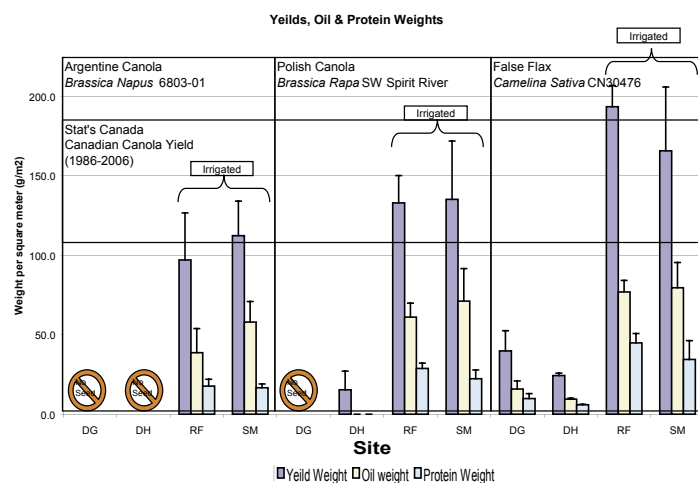
The chart at right shows the average yields of the four samples taken from each variety at each site, with the exclusion of the Flanders flax. The Flanders flax never matured and no seeds were harvested at any of the test sites.

Looking at the oilseed results, the irrigated sites performed much better than the dryland sites. The dryland sites had zero to minimal yields for polish canola, and low yields for the false flax. For the irrigated sites, much better results were observed, with the best yields being observed in the false flax as shown on the chart. Between canola varieties the early maturing polish canola performed better than the argentine canola. Statistics Canada reports total Canadian canola yields from 1986 to 2006 as 110 to 180 g/m². Using this range would suggest that the oilseeds production for the polish canola falls into average yields and the argentine canola was on the low end of the range. It should be noted that the Statistics Canada report mentions canola yields ranging as high as 220 to 280 g/m².

When comparing oil content among all the varieties, the canola had a higher percentage of oil, yet the total output of oil per square meter was still lower than the higher yielding false flax. The oil per square meter on irrigated sites averaged:

- *Camelina sativa* 78.2 g/m²
- *Brassica rapa* 66.1 g/m²
- *Brassica napus* 48.3 g/m².

The protein content of the oilseeds was reported to determine the value of the meal portion of the crop. The false flax again had the highest protein content on a weight and percentage bases, therefore the meal portion would have



Oilseeds Site Summary for the 2006 season

high protein content, but it is unknown if the meal is a suitable feed. Canola meal is currently used by farm animals as a supplemental feed.

Evaluation of the climate data showed better growing conditions at the oilseeds experimental plot sites; RF and SM, as defined by higher growing degree days. The SM site had the most heat and the yield results indicate that there is slight improvement in yields for the canola but not with the false flax. This information supports the need for irrigation, although the climate classification and short number of frost free days also indicate that climate is a limiting factor to oilseed production. It is expected that a central Yukon area would result in better yields based on climate data but further study is required.

Conclusions:

- Oilseeds can be grown in the Yukon
- Yields are low compared to potential yields grown in other areas of Canada
- Shorter season varieties performed better than the longer season varieties.
- Irrigation is a necessity, dryland sites showed limited crop potential

Next Steps

- Continue research in the central Yukon to evaluate the potential of the warmer climate.
- Discussion is required to determine whether a one year evaluation be used to exclude the longer season varieties.
- Expand the research on shorter season varieties.

TIPS & TRICKS

A BALANCED COMPOST

One of the best methods to recycle nutrients that are freely available is to build your own compost pile. All those kitchen scraps, lawn trimmings, fall leaves and newspapers can be combined and over time become a source of fertilizer for your plants.

For proper compost you need a balance of water, air, nitrogen and carbon.

Bacteria and fungi need water for the decomposition process. Too little water slows down composting and too much causes anaerobic conditions. When it comes to moisture provide enough moisture so that the compost feels like a damp sponge.

Air is critical for the bacteria and fungi to decompose the organic matter. As a compost pile compresses over time it is important to fluff it up by turning it and providing more air space. Turning the pile also allows material on the outside to be incorporated into the center of the pile.

Carbon is the energy source bacteria need to process the organic matter. Carbon, such as leaves and paper makes up the brown component of the compost.

Nitrogen is needed for the bacteria to multiply. Nitrogen is converted to proteins that are used to make organisms. Nitrogen rich sources are the green component (though not always green) of the compost such as kitchen scraps and lawn trimmings.

Now comes the balancing act. In order for a compost pile to decompose properly the ratio of

carbon to nitrogen (C:N) ratio needs to be 25-30:1, that is 25 to 30 parts carbon to one part nitrogen. Some generalized ratios for brown and green material are listed below:

Brown

wood sawdust C:N ratio > 200:1
straw C:N ratio >50:1
aspen leaves C:N ratio 45-80:1
newspaper C:N ratio 500:1

Green

Vegetable scraps C:N ratio 15-20:1
Poultry litter C:N ratio 10:1
Lawn clippings C:N ratio 20:1
Coffee grounds C:N ratio 20:1
Manure C:N ratio 5-25:1

A narrow C:N ratio (i.e. too much nitrogen) leads to nitrogen loss from the pile and smells, as ammonia gas is released from the pile. On the other hand too much carbon slows breakdown because there is not enough nitrogen for the microorganisms to grow.

If you're just getting started or require more compost, the City of Whitehorse has compost available for purchase. For information contact the landfill at 668-1621 for compost availability and costs.

Example:

Target C:N ratio is 25:1
Sawdust 200:1
Poultry litter 10:1
11 parts poultry litter and
1 part sawdust

LONG STORAGE MILK DEFINITIONS

Sweetened condensed milk
Milk condensed to one-third its original volume with sugar added as a preservative.

Evaporated milk
Milk solids concentrated by removing 60% of the water.

UHT milk

Processed under ultra high temperature (138-158°C) for a period of short time. Typically packed under sterilized conditions to provide an extended shelf life.



CARROT CULTURE

There is rarely a more anticipated moment in vegetable gardening than biting into the season's first fresh carrot. For success it is important to thin carrots to 5 cm apart to prevent intertwining of roots and poor growth from root and shoot competition. Try not to plant anise and dill near carrots as they have a negative effect on growth. Carrots are adapted to full sun, cool soil temperature, and pH 6.0 – 6.5. Warm soil help carrots sprout and once sprouted, peat or loose soils helps the tiny seeds to penetrate the soil surface.

Alaskan recommendations include growing Royal Chantenay, Touchon Deluxe, and Spartan Bonus. Other recommendations from various growers include Danvers Half-Longs, Nelson, Nantes Half-Longs, and Imperator.

TIPS & TRICKS

MICROCLIMATE MODIFICATION
WITH PLASTICULTURE

The Yukon climate can make the production of warm season vegetable crops difficult. Summer soil and air temperatures can be cool, slowing plant growth. Climate places limitations on growers, restricting them to varieties that will mature in a shorter time period and results in a trade-off in variety selection, overall quality, and yield.

One way to modify a climatic area, is to place the whole growing system under cover. Modifying the environment around the roots and shoots of developing seedlings creates a microclimate that can extend the growing season and provide benefits in terms of plant selection, yields and quality.

Microclimate modification can be accomplished through the use of plastic mulches, mini-tunnels or floating row covers. Yukon research projects conducted on strawberries in 2005 and turnips in 2001 have shown that mulches and row covers generally increase yields and reduced maturing time. Although mulches and row covers can improve yields and extend growing seasons, the benefits must be weighed against increased cost and labour.

Plastic Mulches

Plastic mulches are laid on a prepared soil surface free of trash and anchored using the weight of the soil on the edges. Mulch should be laid tightly to ensure good heat transfer and prevent flapping and movement in the wind. Movement may cause the plastic to tear, eliminating any benefits. To provide much needed moisture, plastic mulches are often used in conjunction with drip irrigation.



Laying Plastic Mulch

Physical Benefits of Plastic Mulch

- Increased soil temperatures (degree depends on mulch type)
- Reduced weed levels (depends on mulch type)
- Reduced contact with soil and decay organisms
- Conserve soil moisture (mulch creates a barrier to evaporation)

Disadvantages of Plastic Mulch

- Removal and disposal of plastic required
- Greater initial costs
- Increased level of management required

Plastic mulches come in a variety of colours, with a range of qualities for each type. Common colours include:

Colour Comparison

Black plastic does not increase soil temperature significantly compared to bare soil but provides excellent weed control. Black plastic is inexpensive.

Clear plastic transmits light energy while preventing heat loss, essentially forming a greenhouse above the soil. Clear plastic is inexpensive and can increase soil temperatures by 6 to 10°C. Clear plastic does not provide weed control unless used with herbicides.

IRT or wavelength selective plastic provides a compromise between clear and black plastic,

for an additional cost. This plastic transmits only non-photosynthetic wavelengths of light, therefore providing weed control and an intermediate increase in soil temperature (4 to 6°C).

Coloured plastics (red, silver, white, blue, etc.) can have a variety of effects, ranging from improved fruit ripening, reduced soil temperature, weed control, and insect management.

Other Benefits of Mulches

- Increased soil temperatures improves early season plant establishment
- Increased soil temperatures accelerates early season plant growth, translating into earlier crop maturity and increased returns
- Weed control reduces competition for water and nutrients
- Increased plant vigour translates into increased final yields
- University of Saskatchewan trials observed melon yield increases of up to 73% compared to bare soil controls.
- The use of coloured mulches may improve fruit yield and quality of some vegetable crops, although results are variable

Mini Tunnels

Mini tunnels involve the placement of plastic or spun-bonded fabric sheets on metal hoops over the developing crop, resulting in a mini-greenhouse effect. Plastic is usually clear and may be solid or perforated. This cover is left on for 3-4 weeks, depending on the crop. Mini tunnels are often used in conjunction with plastic mulches and drip irrigation.

Benefits of Mini tunnels

- Increased daytime air temperatures can enhance the growth rates of crops

TIPS & TRICKS



Mini Tunnels

- Perforated covers can reduce the level of manual labour required for ventilation, but do not hold temperatures for as long as solid plastic
- Covers can protect crops from insect pests
- Spun-bonded fabric will allow passage of rain and overhead irrigation

Disadvantages of Mini tunnels

- High daytime temperatures in the spring can result in excessively high tunnel temperatures, impacting flower development and plant survival
- Labour intensive to install
- May require a lot of labour to ventilate
- Solid plastics can form a barrier to pollinating insects and/or precipitation

Floating Row Covers

Floating Row Covers are very large sheets of spun-bonded fabric (range of thicknesses available) that “float” over or lie on the developing crop. The material is anchored on the edges with soil, sandbags or rocks. Crops may be direct seeded or transplanted.

Benefits of Floating Row Covers

- Do not impede seedling emergence while increasing soil and air temperature for plant growth.
- Rain or irrigation freely pass through the fabric
- Finer weaves can prevent entry of some pests
- Can provide some frost protection

Disadvantages of Floating Row Covers

- Movement in wind can damage some crops
- High winds can be problematic
- Labour intensive to remove cover to allow entry of pollinating insects = lots of labour
- Can delay early fruit set in some crops (e.g. tomatoes)
- Weed growth can be extensive

Adapted from Alberta Government, Ag-Info Centre, Alberta Agriculture and Food



Environmental Farm Planning for Yukon Farmers and Ranchers

Right now is the best time to participate in the Environmental Farm Planning Process.

Environmental farm planning (EFP) is a confidential and voluntary assessment process that helps agricultural producers evaluate their farm operations. The process is designed to complement and enhance the current environmental stewardship practices of Yukon producers. An independent coordinator is available at no cost to help you complete an Environmental Farm Plan for your operation.

A completed EFP allows producers to gain a better understanding of the agri-environmental risks that may be associated with their farm operation. It also allows farmers and ranchers to take action on any environmental risks they identify with incentive funding under the Canada/Yukon Farm Stewardship Program. Time is running out to apply for the funding as it ends March 31, 2008.

For more EFP information or to get involved visit the Agriculture Branch online at <http://www.emr.gov.yk.ca/agriculture/apf.html> or by phone at 393-7410 or toll free at 1-800-661-0408, extension 7410.

Canada

The Agricultural Policy Framework (APF) • A FEDERAL-PROVINCIAL-TERRITORIAL INITIATIVE

Yukon
Energy, Mines and Forestry

If a cow laughed really hard ... would milk come out of her nose?

CALENDAR OF EVENTS

BEEKEEPING FOR BEGINNERS SEMINAR

May 26-27

With Paul vanWestendorp, provincial Apiculturist with the British Columbia Ministry of Agriculture and Land, will lead this two day course to discuss many components of apiculture; including beekeeping, equipment and set up, disease detection and approaches to dealing with disease, honey marketing etc. The beekeeping seminar is intended for existing and potential beekeepers living in the Yukon.

For more information and to register contact the Agriculture Branch at 667-5838 or toll free at 1-800-661-0408 local 5838.

FIREWEED COMMUNITY MARKET

Shipyards Park, 3 to 8 p.m., every Thursday

"It's about more than good food"

First market set for May 17

Last market September 13

AL CHAMBERS ON SPECIFIED RISK MATERIAL (SRM)

Presentation on new SRM disposal and transportation regulations.

For more information contact Kevin Bowers at the Agriculture Branch at 667-5838 or toll free at 1-800-661-0408 local 5838.

6TH CIRCUMPOLAR AGRICULTURE CONFERENCE

Happy Valley-Goose Bay, Labrador, Canada

September 30 - October 3, 2007.

Theme: "Northern Agriculture - Evolving with a Changing World."

Topics include: Harvesting, utilizing and marketing of northern wildlife and boreal floral, reclamation of industry development sites in northern areas, creating northern agricultural awareness, adopting emerging technologies in northern agriculture, and supporting agriculture growth through rural development initiatives in circumpolar regions.

If you are interested in attending or presenting papers or posters please see the website: <http://www.caa-cac.org/Conference.html>

For travel funding please contact the Agriculture Branch at 667-5838 or toll free at 1-800-661-0408 local 5838.

CLASSIFIEDS

Elk Meat For Sale

25 or 50 lb packages with lean burger, prime rib, t-bone, ribs, etc. Low fat, low cholesterol and high protein. Ford Elk Farms Ltd 867-633-4342.

Pheasants For Sale

A variety of young and mature very colourful exotics. Easy to raise and winter hardy. Call Claude Dulac at 867-634-2512 in Haines Junction for more information.

Cattle For Sale

For sale 2x2nd calf heifer-bred, 2x1st calf heifer bred, 5 last years calves steers and heifers, 1 pure bred 2 year old South Devon Bull. \$0.95 per pound. Call Jerry Kruse, McCabe Creek Farm 867-537-3458.

Great Green Growers Cooperative

There's a new concept in farming coming to the Yukon. A community, cooperative based farming project has begun using privately held farm land to contribute to local food security and to make an affordable land option for farmers looking for land in the Yukon. For more information please contact Peter Coates at 668-4630.

Yukon Gardener's Manual is available at the Agriculture Branch for \$20 + GST. This manual includes chapters on botany, soils, outdoor vegetable gardening, lawn and ground covers, woody perennials, flowering plants, greenhouse growing, pests and diseases.

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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Call Matt Ball at (867) 667-5838, toll-free outside of Whitehorse at 1-800-661-0408 local 5838, or stop by the Agriculture Branch on the third floor of the Elijah Smith Building in Whitehorse.

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