InFARMation

Yukon Agriculture Branch Quarterly Bulletin

Spring 2003
Volume 16 Issue 1

Inside this issue...

Message From the Agriculture Branch

With the temperatures above zero and the days getting longer, it sure feels like spring is on its way. What better way to celebrate spring than to sit down with a cup of "joe" and read this installment of InFARMation.

Something to note - the Agriculture Branch and Agriculture and Agri-Food Canada are on the move! We are moving in early April to the Elijah Smith Building on Main Street. Our office will be on the third floor beside the Lands Branch. Our phone numbers, fax number and services will all remain the same. Stop by for a visit and a cup of coffee.

The reason for the move is to bring the Agriculture Branch in close proximity to the Lands Branch. With Devolution occurring on April 1st, the federal and territorial lands branches will merge responsibilities. Moving the agriculture land program close to these folks should streamline all lands operations and provide a more convenient location for you to visit. As this move will take up staff time, we ask for your patience in the first couple weeks of April as we get settled in. Hopefully the move will not cause any unforeseen disruption in our service to you.

On another note, the Agriculture Policy Framework (APF) is still in the works. As of early April, the Government of Yukon expects to be signed onto the implementation agreement and we will be developing and implementing programs that fall within the five categories that are addressed in the APF. If you wish to find out more about the APF or any other branch programs please stop by out new office or give us a call.

With spring rapidly approaching I wish everyone a successful and productive growing season. I'm sure most of you are anxious for the snow to be gone so that field and garden planting can begin.

Dave Beckman
Director

Yukon
Energy, Mines and Resources

---------- *News Flash* ----------

We're Moving April 5th to the 3rd Floor of the Elijah Smith Building on Main Street

Great gardening tips

Snip to Thin
Cuticle scissors are the perfect tool for thinning seedlings. Instead of uprooting unwanted seedlings, snip them off at soil level. This technique avoids disturbing delicate seedling roots. No scissors on hand? Try pinching the stems between your fingernails instead.

Mow Leaves for Mulch
Shredded leaves are an excellent mulch for flower and vegetable beds. But how do you shred leaves quickly and easily? Heap them in shallow piles on your lawn and run over the piles with your power mower.

Pile on to Sow Early
Raised beds warm up and dry out fast, just what you need for an early start on spring planting. Early in the fall is the perfect time to build a raised bed. In late August or early September, pile compost 12 to 15 inches high to form a bed of the desired size. Top the bed with a couple of inches of garden soil. The bed will settle over winter, and it will be warm and dry weeks before your regular garden soil. Plant onions, lettuce and other cool season crops as early as May 1st and you'll be harvesting weeks ahead of your neighbours.

Kill When Cold
The early hand picker gets the pest! Most flying insects are sensitive to temperature changes. When they're cold, insects move slowly and cannot fly. It's no trick at all to catch and kill them in the coolness of early morning. A few hours later, when the mid-day sun has warmed them up, pests are much better escape artists.

Sand Your Lettuce
Lower leaves of lettuce can trap moisture and rot, especially if plants are closely spaced. To encourage drier conditions and prevent rot, spread a layer of clean sand around lettuce plants when they're young. *This might work on strawberries too.*

Colour Your Cauliflower
You can blanch cauliflower by gathering the leaves around the developing head and using string to tie them in place. The head should be ready to harvest in about a week. If you have several plants developing at different rates, use string of various colours to keep track of when you tied each head. Keep notes in your gardening journal or calendar to remember what colour and corresponding date it was used.

Let Frost Sweeten the Harvest
To enjoy an especially sweet flavor from cabbage, brussel sprouts and kale, delay harvest until after a good fall frost. The cold snap will induce starch stored in the leaves to convert to sugar.

Adapted from: the 60th anniversary issue of Organic Gardening Magazine.

Plant combinations to try

Certain combinations of plants will improve the overall performance of one or both plants. Some plants are used to keep away harmful insect pests while others work by attracting beneficial insect predators.

There are even plants that produce natural compounds and nutrients in the soil to improve the health and flavour of other plants growing nearby in the current or following season.

Below are several examples of beneficial companion plants for the typical northern crops:

Vegetable	*Benefits From*
beets	onions, kohlrabi
cabbage	dill, sage, onions, potatoes
carrots	onions, leeks, parsley
lettuce	carrots, onions
onions	beets, strawberries, cabbage, lettuce
peas	carrots, radishes, potatoes
potatoes	cabbage, horseradish
radishes	lettuce, nasturtiums
tomatoes	marigolds, basil, lettuce
turnips	peas, brussels sprouts

Plant combinations to avoid:

Vegetable	*Dislikes*
beets	pole beans, field mustard
cabbage	strawberries, marigolds
carrots	dill
onions	beans, peas
peas	onions, garlic
potatoes	onions, raspberries
radishes	hyssop
tomatoes	fennel, potatoes
turnips	potatoes

West Nile Virus

West Nile Virus will likely become a concern to Yukoners in the near future. The virus was first detected in Canada in August of 2001. From Ontario it has steadily moved westward. The virus is expected to reach Alberta by this coming summer and will likely arrive in the Yukon in the coming years.

Birds are the source of the virus and transmission occurs from bird to mosquito when the mosquito extracts blood from a bird. The infected mosquito can then transmit the virus to other animals including: birds, humans, horses, dogs, ruminants, camels, primates, rodents, bats, pigs, rabbits, amphibians, alligators and mountain goats. Some animals are more resistant to the virus than others. There is no evidence that there is transmission of the virus between other animals. An infected horse does not pose a threat to other horses and a mosquito can only become infected through contact with an infected bird species.

What can you do to protect your horse? There is a vaccine available for horses, but the main prevention of the disease at this time is mosquito control. Horse owners are encouraged to protect their horses by:

- eliminating standing water on the property to prevent mosquito breeding. It only takes a small amount of water to produce a lot of mosquitoes so make sure old tires and roof gutters are dry;
- housing horses inside at dawn, dusk and night as these are peak mosquito times;
- not leaving lights on inside horse stables in the evening and night;
- placing incandescent bulbs around the perimeter of the stables;
- using fans to create air movement over stabled horses;
- moving all birds, including chickens, in, or close to, the stable area; and
- using mosquito repellent on horses.

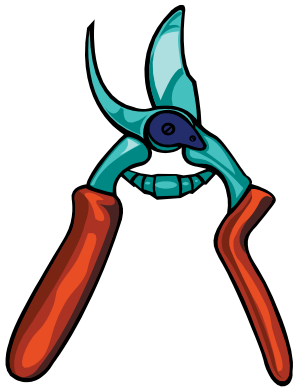
For more information, contact the Yukon Horse and Rider Association or Yukon Veterinary Services.

Pruning seminar to be held this May

Mark you calendars for the evening of May 13th if you would like to attend a workshop on pruning trees and shrubs. This seminar is a follow-up to the Yukon Master Gardeners course that was offered earlier this year, however, all gardeners interested in learning about pruning are encouraged to attend.

Principals, techniques, timing and tools for the job will be demonstrated on a variety of landscape plants surrounding the Yukon College. Some of the ornamental shrubs include: roses, potentilla, honeysuckle, alpine currants, low and tall hedging plants and ornamental trees including Mayday and Mountain Ash.

Those that would like to attend the workshop are asked to register with Marylynn at the Agriculture Branch, (867) 667-5838 before May 9th. We will meet in the student parking area at 7:00 p.m. and should finish the circuit by 9:00 p.m. Bring your pruners if you have them.



State of the Industry Report

Our State of the Industry Report for the years 2000-2001 has been published. Inside you'll find information about production, growing season conditions, government services and programs and infrastructure development. The report was released late in 2002 to allow time to include the 2001 Census of Agriculture statistics. Statistics from the Census show that the number of farms, the value of sales and the total farm capital have all increased over the last census. If you're interested in more information, stop by our office to pick up a copy of the report.

A few thoughts on farmers' markets...

At this time of year a steady flow of seed catalogues comes through the Agriculture Branch office, whetting the appetite with planting ideas and options which reminds us of enjoyment of the bounty that our gardening efforts bring. Last season saw a keen and productive group of folks sharing their bounty through Farmers' Markets at locations around the territory. We at the Agriculture Branch encourage you to watch for these markets and show your support by buying locally grown in 2003. Contact information for many local producers can be found in the 2003 Yukon Agriculture Products Directory, to be released later this month.

Canadian organic statistics

In 2001, for the first time, there was a question on the Statistics Canada Census of Agriculture asking, "Does this operation produce any certified organic products for sale?" Any hopes we had that this question would eliminate the need to contact the certifying bodies were dashed when the results came out in May 2002. Across the country, the numbers of certified producers were under-reported which, according to Statistics Canada, was "due to undercoverage and response errors." For more information see www.statcan.ca. An informal random survey of certified producers indicated that several had not received or had not completed the questionnaire. It represents only 69 per cent of certified producers according to the figures provided by the sector.

Several organizational changes have taken place in 2002 among the certifying bodies for a number of reasons including market access, accreditation needs and improved efficiencies. In some cases, this created problems with obtaining data from the previous certification year; in others, access to data was simplified.

The total number of certified producers in the year 2001 was 3,236. This represents a 4 per cent increase from 2000, a considerably lower rate of increase than the 34 per cent the previous year. Saskatchewan has the most certified farms (1,138) followed by Ontario (613), Quebec (452) and B.C. (389). Organic farms make up 1.3 per cent of all farms in Canada (246,923 - 2001 Census). Data for number of producers in transition is incomplete.

The data for total acreage is incomplete. The estimated numbers indicate there are now over one million certified acres in Canada. A possible source of error is the fact that some data included rangelands and pasture while other data did not. Processors and handlers are often certified by more than one certifying body; consequently, the actual number is likely lower than indicated.

Anne Macey complies this data for COG on a yearly basis. She can be reached at macey@saltspring.com.

Source: EcoFarm & Garden, Winter 2003. Page 49

Nitrogen for field crops – where does it go?

By Tony Hill

Every year we have discussions with farmers about the best time and type of nitrogen to apply to field crops. Questions arise about nitrogen like " How much nitrogen applied as fertilizer is used by the crop? How much is lost and where does it go?" At a recent meeting of Yukon producers interested in bulk fertilizer purchase and storage, branch personnel provided some of the following information.

The proportion of fertilizer nitrogen applied that is recovered by the crop in the first year after application varies with many factors, including weather, fertilizer management (eg., source, time of application, placement, rate of N, type of crop, etc.). Under Canadian prairie conditions, fertilizer nitrogen recovered in the plant in the first year rarely exceeds 50 per cent and averages about 37 per cent under rain fed conditions. About 33 per cent of the nitrogen is immobilized (organic N) where over time, it gradually builds up the nitrogen supplying power of the soil so that in some years less fertilizer nitrogen will need to be applied. The remaining 30 per cent of the nitrogen is lost from the system through various possible mechanisms called volatilization, denitrification and leaching beyond the root zone. The amount of fertilizer N recovered by the plant would be similar under Yukon conditions.

Urea (46-0-0) is more subject to volatile losses than ammonium nitrate (34-0-0) when broadcast and left on the soil surface. Urea hydrolyzes to ammonium and this can be lost as ammonium gas. Losses are greatest when urea is applied to a moist surface or thatch followed by several days of warm drying conditions. Rainfall of at least 6mm (0.25 inches) within one or two days will minimize volatile losses. In contrast, a very light shower followed by warm drying conditions may increase rather than reduce losses. High soil pH (>7.5) will also encourage volatile losses.

A very cool wet spring can also cause fertilizer nitrogen losses through denitrification. The denitrification process occurs under waterlogged soils where anaerobic bacteria are active. These bacteria use denitrification as an alternate form of respiration when oxygen is in short supply. They utilize soil nitrates to break down organic matter and release nitrous oxide (a greenhouse gas) into the atmosphere. A cool, wet spring also reduces the amount of soil mineralization that would normally take

place. This breakdown of soil organic matter in normal soils, under aerobic conditions, releases nitrogen into the soil which can be used by plants. Mineralization is more effective under drier soils and warmer temperatures.

Last but not least, fertilizer nitrogen can be lost by leaching it beyond the root zone. Heavy rains or over irrigation can wash both residual and fertilizer nitrogen out of the root zone. Sandy light soils lacking in organic matter are most affected as they have little structure to hold the mobile nutrient.

There are several things that can be done to minimize fertilizer nitrogen losses. On non-irrigated fields with a higher pH, use ammonium forms of nitrogen which are subject to volatilization and leaching only after conversion to nitrate; apply nitrogen as close to the seeding date as possible; and schedule irrigation to maximize nutrient uptake – lighter more frequent irrigations are best. In severe cases it may be necessary to split the nitrogen application into two increments. Coated urea nitrogen using sulfur or an enzyme inhibitor may also be an option for farmers cropping under higher risk conditions to reduce the chance of fertilizer loss.

Finally, a number of farmers have had good results with fall-applied nitrogen. It can be tricky but beneficial if the timing is right. Apply N late in the fall after the soil temperature has dropped below 7° C and the nitrification process has slowed down. Avoid soils that tend to be saturated in the spring and sloping fields when surface applied nitrogen could be lost due to run off with the melting snow.

Annual flowers from seed

Here's a table of commonly grown annuals in the Yukon with some tips on how to get an early start.

Flower	When to Start (Weeks)	Depth to Seed (mm)	Needs Light or Total Darkness	Temp (°C)	Germ. Time (Days)	Special Instructions
Alyssum	6-8	S	Light	21 – 24	8 – 15	P, 3-9 seeds per cell
Aster	6-8	3		21	10-14	
Bachelor's Buttons	4-6	3	Dark	15-21	7-14	P, pre-chill at 7° for 5 days
Cosmos	6-7	6		24-27	7-15	
Geranium	16-18	6		24	5-15	
Lobelia	10-12	S		21-24	15-21	P, 10-15 seeds per cell
Marigold	6	6		24	5-7	
Pansy	10-12	3	Dark	18-21	10-21	Pre-chill for 24 hours
Petunia	10	S	Light	27	10-14	Seed in rows
Pot Marigold (Calendula)	6-8	6	Dark	21	7-10	
Nemesia	8-10	3		16-18	10-14	
Snapdragon	8-10	S	Light	21	10-14	Freeze for 48 hours
Stocks	6-8	S	Light	21	7-10	
Sweet Pea	4-5	12	Dark	12-14 no higher	10-14	P, soak seed for 24 hours

S - Press seed into soil surface. Do no cover.
P - Start in individual pots or cell packs so roots are not disturbed during transplanting

Free, easy compost bins

One way to avoid the cost of buying plastic bins is to use wooden pallets. Set each corner in the ground with a post, screwing one end of each pallet into the posts. If you want to be creative, use a bungee cord for a door hinge.

Ag makes big contribution to economy

By Lyle Vanclief

Lyle Vanclief is the federal Minister of Agriculture. This is an excerpt from a monthly column he publishes on the Agriculture Canada web site.

> I get asked at non-agriculture functions and even on the street, about the problems of farmers and farming. Why is it that all we read about is farmers needing help? Is farming not viable anymore? Why aren't they like other sectors….?
>
> Not to be critical of our mass media, but people should realize that much of media coverage is driven by confrontation and change. Doing something different?
>
> That's news. Fighting with each other, cranking up the rhetoric? There's a story.
>
> So imagine the surprise when I explain the contribution agriculture makes to our economy.
>
> No, it's not new. No, there's not controversy. It's just a fact that Canada would be more than $7 billion poorer if our farmers weren't producing more food than we eat. That's right. Our farmers and food producers exported close to $27 billion worth of goods in 2001. We imported more than $19 billion worth of food. The result is Canada's agriculture and agri-food industry pumped a net $7.4 billion into our economy on the trade front….
>
> The agriculture and agri-food industry has been valued at $130 billion. Almost one in seven Canadians works in the sector. It's the third-largest employer in Canada….
>
> I think it's sometimes valuable to take a step back and realize what a big, dynamic and economically positive factor the sector is for our country.
>
> About those stories of farmers in trouble? It's true that farming has never been an easy occupation. Fluctuating world and domestic markets, unstable weather patterns, costly equipment and competition both at home and abroad make it a challenging profession, to say the least.
>
> Farmers do their very best to adapt to all those changing factors and they do an admirable job of it. Those of us in government are also doing what we can to support their efforts.

Source: Western Producer, February 13th, 2003. Page 7

Cows and fish – partnerships and protecting the "Green Zone"

By Kate Maddigan, DFO

On September 28 at the Rafter A Ranch near Whitehorse, a group of Yukon residents participated in a workshop on riparian and range management. It was all about where cows meet the "green zone," or streamside vegetation, and how producers and communities can work together to protect the health of this landscape, while maintaining, or improving, the productivity of their rangelands.

Our workshop presenters, Lorne Fitch and Barry Adams, live and work as biologists in Lethbridge, Alberta, and have backgrounds in cattle production. For 12 years they have delivered this workshop around the world, helping producers and communities work together and understand how improvements in grazing management can enhance landscape health and productivity, to the benefit of producers and others. In order to accomplish this goal, they promote what Lorne lovingly calls, the "Cows and Fish Process," which will be described here.

But first, why all the attention on streamside vegetation, or "riparian" areas? Many people do not realize that the narrow band of vegetation along streams, rivers and lakes, are relied on by up to 80% of wildlife for some or all of their life processes. Healthy riparian areas are considered fish habitat, bird habitat, buffers against droughts or floods, insurance for stable banks, and are among the most productive, valuable and most vulnerable of all landscape types. Little attention is given to this small, but very important habitat.

Lorne and Barry provided workshop participants not only with an understanding of riparian ecological functions, but also an introduction to the basic principles of riparian grazing management, along with examples of Alberta's mistakes and success stories. Yukon is no where near the production level of Alberta, however production does appear to be growing. Clearly, the message was to learn about the benefits of healthy landscapes through proper range management now, to avoid some of the costly mistakes later. We were provided with examples of real producer profiles and demonstration sites that helped us understand the importance of this point.

Alberta's mistakes have become highly publicized issues, like the contamination of drinking water from poorly managed agricultural waste. Fish habitat destruction

is another, and concerns about riparian areas in Alberta began over fisheries issues. Did you know that cattle exert about 10 times the weight of pressure per unit area as a D9 caterpillar with a blade? Bank trampling and streambank collapse eventually occur with the steady use of streamside areas by cattle. For now in the Yukon, horses outnumber cows, but the concerns are similar. Since the industry demands a ready supply of water, it is not surprising that the majority of agriculture in Yukon occurs around one of our large watercourses, the Takhini River.

Lorne and Barry strongly believe that the best way for producers to improve and protect riparian areas, is through partnerships, and voluntary, proactive community-based action. Along with education and awareness about management options for livestock producers and the community, the goal of riparian protection can be met. And that is the mission of the "Cows and Fish Process": local communities and producers making better decisions on land use to sustain agriculture, fish and wildlife populations, and to ensure clean water supplies for everyone.

The Cows and Fish Process helps move producers, resource managers and others from conflict to co-operation. The process starts with ecological awareness, and moves to teambuilding among landowners, resource managers, and others who value riparian landscapes. Next is the phase of tool-building, where options and alternatives to current practices are explored and developed. Finally, community-based action is the last part of the process, where the community determines the approach to riparian management in their watershed. The community monitors its' success in protecting riparian areas using broad-based partnerships and a long-term vision.

Lorne says that if you don't have any cows, it doesn't matter. Since we're all part of a watershed, we're all linked to riparian areas. So whether you're a farmer, a downstream water-drinker, an angler, or involved in any industry that works in or around water, the understanding and appreciation of riparian areas is important for all of us.

The Cows and Fish website is very informative and you can visit it at http://cowsandfish.org. As well, "Caring for the Green Zone" booklets and the "Riparian Health Assessment Field Book" may be obtained free of charge by calling Fisheries and Oceans Canada's local office at 393-6703, or by contacting Patricia Smith at the Agriculture Branch office, 667-3698.

The workshop "Caring for the Green Zone: Water, Agriculture, and Riparian Management" was funded by Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, and the Yukon Salmon Committee.

Calling all Master Gardeners!

You are cordially invited to a first meeting of Master Gardeners to be held on April 15th 2003, from 7 to 9 p.m. in the Whitehorse Public Library, on 2nd Avenue, Whitehorse, YT.

If you are interested in forming a Yukon Master Gardeners' Association please bring your ideas, suggestions and vision to share.

Below is a proposed agenda. If you would like to add to it, please contact Kerry Huebert.

RSVP to:

Tony Hill, Energy, Mines & Resources,
Phone: (867) 667-3417
E-Mail: tony.hill@gov.yk.ca;

or to:

Kerry Huebert
Phone: (867) 393-3554
E-Mail: dkhuebert@hotmail.com.

If you are unable to attend but are interested, meeting minutes will be available within a few days of the meeting.

Agenda for the First Master Gardeners Meeting

7:00 Introductions

7:10 Overview

7:15 Reason for forming an association

7:30 Organizational committee formation

7:40 Objectives/Goals

8:00 Volunteer Opportunities/Activities/Events/Projects

8:30 Partnerships/Sponsors/Supporters

8:40 Summary

8:45 Action Plan

8:55 Set Next Meeting

For Sale

Equipment:
New Holland 489.9 Hay bine $6,200
D6-9U Cat $10,000 O.B.O.
Rafter A Ranch
Mile 938 Alaska Highway
Phone: 867.667.7844

Hay:
30 large round bales $135 each
John Buerge at Partridge Creek Farm
Phone: 867.996.2068

Yukon Reindeer Herd:
Selectively bred and all have been pedigreed, some are registered.
For more information contact Stella or Tim
Phone: 867.633.2996

Potatoes:
Phone: 867.456.4729

Farm Gate Beef:
Yukon grown, no additives, grass fed
Rafter A Ranch
Mile 938 Alaska Highway
Phone: 867.667.7844

InFARMation is...

A Yukon government newsletter published by the Agriculture Branch of the Department of Energy, Mines and Resources. If you would like to add your name to the newsletter mailing list, comment on an article or contribute a story, then please write to:

InFARMation
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If you would like to speak with someone in person please contact Tony Hill at 867-667-3417, outside of Whitehorse at 1-800-661-0408 local 3417, or stop by the Agriculture Branch. We will be at our new location on the 3rd Floor Elijah Smith Building.
Web site: www.emr.gov.yk.ca/agriculture

Farm Equipment & Supplies
J & A Ruechel
Phone: 867.633.3276

- 2002 Bombardier Tundra skidoo $4100
- New 2002 Skidoo 12 ft toboggan $600
- Paysen tilting bi-directional calf squeeze, new, never used $950
- New cattle squeeze & Hi-Hog palpation cage $3300
- Cosmo 3 pt mount cone seeder w/agitator $550
- 100 gal Tidy tank w/wobble pump new 2002 $525
- 4 ea –10 ft wide Hi-Hog medium gauge 5 bar metal panels $80 each
- 14 ft metal gate w/chain $120
- Treated Rails 3-4" 12 ft (183) $5.30 ea
  10 ft (80) $6.80 ea
- 2 – 33' x 48'hay tarps (Inland Plastics), 1 new, 1 used one season, $250 for both
- ATV 4'x8' trailer – flat deck w/removable sides & tailgate. Utility boxes mounted on front $1250
- 360 gal black poly-water tub $300
- 4'x 6' rolling welding table w/ welding stinger hooks, vice, rod, hammer & brush holders $550
- 2 mineral feeders on rail skids $700 each
- Union Carbide UCC 305 Welder AC/DC $3000
- Wide selection of Gallagher electric fencing supplies including solar powered energizer
- Kubota 8030 tractor 4x4, 2780hrs, 76 hp,w/quick attach loader w/bucket, pallet forks, bale spear, 9 ft hydraulic snow blade, 3 p mount cone seeder $36,000 includes blade & cone seeder
- Land Roller 10.5 ft wide $1800
- Irrigation – wheel line 38 sections, 2880 ft of 6' alum pipe w/hydrants, 4' pipe & rolling gun, (Bauer) 6' pto pump, various fittings, complete $22,000

Here's an opportunity!

We have a small family farm and tourism business built on principles of sustainability, good stewardship, and permaculture. Future potential has created an opportunity for a person/couple/family who would like a rural lifestyle based upon similar principles. A cash investment is not necessary to take advantage of this opportunity- commitment to the above principles is. If you would like to investigate this opportunity further contact:
Brandy Greenwood
Box 25
Teslin, Yukon Y0A 1B0
Email: robymnmorgan@canada.com