

INFARMATION

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YUKON'S COMMUNITY GARDENS COME TOGETHER

This spring, thirty five people from across Yukon gathered for two days to share their experiences and learn together about challenges and successful strategies for running community gardens in Yukon.



Seven Yukon First Nation communities, six non-profit organizations, Yukon and Canada government representatives, and representatives from the Yukon Food System Design and Planning Project participated in Community Garden workshop. The workshop appropriately titled: Working Together to Grow More was the first gathering of this kind in the Yukon and provided the opportunity for this group to identify opportunities for strengthening the network of community gardeners for local food production in Yukon. The workshop was facilitated by Heidi Marion of Foodscapers, a local Yukon gardening expert who led dynamic discussions and sessions throughout the two days.

The purpose of the workshop was to identify best practices or 'what's working' in Yukon's community gardens, challenges community gardeners are facing, and sharing of the resources that are available to help communities strengthen their local food production practices.

Throughout the gathering, participants summarized the importance of community gardens in several ways, including providing access to local healthy foods for preventing diabetes and other chronic diseases; contributing to development of capacity in local food production; providing healthy options to offset the high costs of food in grocery stores; and facilitating the connections between food and community members, particularly elders and youth. Recommendations from participants included to host another workshop to keep strengthening the network, and to identify ways to keep people connected until they come together again.

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MESSAGE FROM THE AGRICULTURE BRANCH

The only thing predictable about spring weather is that it will be different from the year before. After a great start in May with above average temperatures we have settled into cool cloudy weather in June bringing us back to normal. Normal being the opposite of last year's spring.

There are a couple of proposed consultations that have been discussed with the Agriculture Advisory Committee over the last year. The scheduling for these consultations is in the process of being determined. One of the proposed amendments is to Agriculture Development Areas Regulation (ADAR) to allow a broader range of accessory and discretionary uses. Section 4.3 of the 2006 Yukon Agriculture Policy speaks to the reliance of farmers on "accessory activities on their parcels in order to diversify farm income" and directs that accessory activities for the purpose of diversifying farm income will be allowed on agriculture parcels.

Presently, with the exception of a few specific parcels, accessory uses are limited to one family dwelling for farms covered by the ADAR. Agriculture parcels located within Local Area Plans have an expanded range of accessory and discretionary uses depending on community values. Expanding the range of accessory and discretionary uses for farms outside these areas will provide all farms the opportunity to diversify their income from an expanded range of activities.

The second consultation is on proposed zoning amendments to regulate the planting of genetically modified crops. There has been strong interest from the Yukon

public and sectors of the agriculture community to regulate the use of genetically modified organisms (GMO) in the territory. Regulating the planting of GM crops through the development permitting system in zoned areas would provide an effective way of evaluating GMO use on a case by case basis without resulting in substantial costs to government or the agriculture community.

Under the proposed approach, anyone who wishes to plant a GM crop on agriculturally zoned properties would be required to apply for a Development Permit for a Discretionary Use. The process would require the Development Officer to undertake public consultation and consult with the Agriculture Branch on the potential risk of contamination and/or impacts on surrounding organic producers before a development permit is issued.

To the best of our knowledge, the planting of a GM crop in the Yukon remains a hypothetical discussion. There are strong opinions held by people opposed to GMOs for

various reasons and those that don't want the door closed on future developments in the bio-technology that may benefit the industry. We are interested in your views on the proposed approach to permit the future use of GM crops so please send us a note or an email when you have time.

Both of these topics are joint initiatives between the Agriculture and Land Planning Branches of Energy, Mines & Resources. Watch for newspaper notices or visit the Land Planning Branch website for consultation information.

Two other events I would like to briefly mention are the new outdoor market days being held on Saturdays from 10-2 in Shipyards Park and our annual Research Farm open house being held on August 6th at the corner of the North Klondike Highway and the Takhini Hotsprings Road. More information on both these events is included further on in the newsletter.

Have a great summer.

Tony Hill
Director, Agriculture Branch



Photo: Three Slaves Farm, bring a field back into production. See Producer Profile on page 6 for more information.

YUKON'S COMMUNITY GARDENS CONTINUED...

Some of the Best Practices participants identified from the workshop included:

- Community engagement is critical to the success of a community garden (i.e. host events, gatherings, workshops).
- Involve children in the garden; they are the link to families.
- Have a management and governance structure (committee).
- Running a successful community garden requires a great time and energy commitment.
- Growers must be passionate.
- Start small but leave room to grow.
- Working Together

The workshop was conducted in partnership with Arctic Institute of Community Based Research (AICBR) and the Agriculture Branch and was funded from Yukon Canada Growing Forward 2 Agriculture Program and from AICBR through the Public Health Agency of Canada (Innovation Strategy).

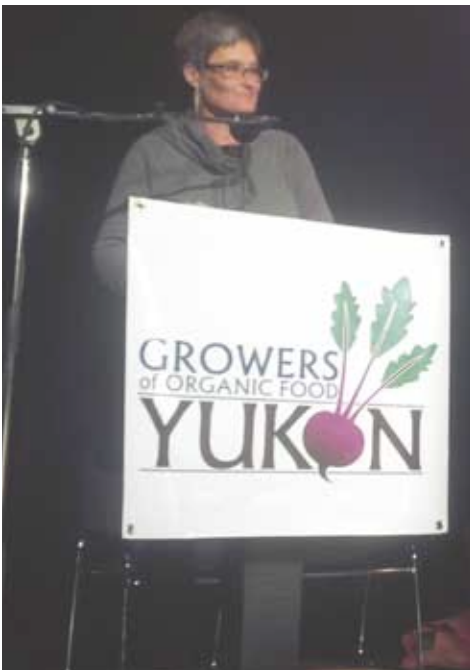


Photo: Food Talks presenter Kathleen Charpentier

FOOD TALKS

Growers of Organic Food Yukon (GoOFY), hosted public talks titled Yukon Food and You: FOOD TALKS at The Old Fire Hall in Whitehorse on the evenings of March 26, 27 and 28.

Food Talks was an opportunity for Yukon's consumers and farmer/producers to have a face-to-face dialogue about the food we eat. The intent of Food Talks was to inspire the discussion around growing food using sustainable practices and providing a contact point for consumer to source local, healthy food.

Judging by the standing-room-only attendance and the engaged audience, the event was a success. The event provided a platform for many wishing to re-engage with their own food policy. The three evenings featured key note presenters to stimulate the audience to start thinking about our food system and how to spend our food dollars.

The presenters included food journalist Jon Steinman host of Deconstructing Dinner radio show and podcast, Jodi Koberinski Organic entrepreneur and advocate who currently serves as the Organic Council of Ontario's Executive Director and Kathleen Charpentier a passionate and inspiring Canadian farmer.

Over the course of three days, there were over 250 people in attendance. In addition to the exceptional turnout, the audience was comprised of a wide variety of ages, providing a great range of support to farmers; and demonstrated our community's

interest in food. The three evenings tackled three different discussion points.

Wednesday evening focused on building relationships and partnered consumers with growers for table talks over some guided questions.

Thursday evening's presentations gave the capacity crowd definitions for food security and food sovereignty from the viewpoints of the three presenters. Jodi Koberinski presented the meaning of organic labelling. Jon Steinman explored the impacts of multinational food companies and how he has managed to make choices to eat locally. While Kathleen Charpentier presented how her family changed their agriculture practices to a more holistic management strategy and the resulting direct market relationship with the consumer.

Friday evening was a ticketed event, with a catered buffet dinner served after the guest speakers wrapped up with their thoughts hosted by local producer Brian Lendrum, chair of GoOFY. All speakers were very well received and were accessible for conversations throughout the rest of the evening. The tickets for Friday evening were sold out a week prior to the event and the feast of largely local food was enjoyed by all.

More information of the event is available at foodtalks.yukonfood.com. The website provides feedback from the table talks, exit survey summary from the attendees and a more detailed summary for the event. The event was funded through the Growing Forward 2, Yukon/Canada Agriculture initiative.

END OF AN ERA
AFTER TWENTY SEVEN
YEARS AGRICULTURE LANDS
COORDINATOR EDWARD LEE
RETIRES

For the last 27 plus years Edward Lee the Agriculture Branch Lands Coordinator worked in the background to support the process of bringing agriculture developed land to title. Edward now moves on to retirement, but before we let him go we took some time and asked him a few questions to capture his long history with the agriculture branch.

Q: HOW LONG HAVE YOU WORKED FOR THE YUKON GOVERNMENT ?

A: I started working for the Lands Branch in November 1986 as a casual, then auxiliary. I became a permanent Yukon government employee in January 1990. My last working day was March 18, 2014. I have worked for the Yukon Government for almost twenty-seven and half (27 ½) years.

Q: AND ... HOW LONG HAVE YOU WORKED FOR THE AGRICULTURE BRANCH ?

A: The Agricultural Land Program was transferred from the Lands Branch to the Agriculture Branch in 1994. I have worked for the Agriculture Branch for 20 years.

Q: WHO HIRED YOU ?

A: Elsie Elrose, Supervisor of Lands at the Lands Branch first hired me as a Lands Administrator in November 1986. I then became the Agriculture Land Researcher, an old position to assist Anne Hargrave, my predecessor. She chose me to be her assistant. When Anne left, I became the Acting Agricultural Land Coordinator. I was then hired by Perry Savoie, Lands Manager, and became the Agricultural Land Coordinator. The Agricultural Land Program was transferred from the Lands Branch to the Agriculture

Branch in 1994. Since then, I worked for the Agriculture Branch until my retirement in March 2014, first under Dave Beckman, Director of Agriculture, then under Tony Hill, the current Director of Agriculture.

Q: HOW MANY FARM PROPERTIES OR AGRICULTURAL LOTS WERE YOU INVOLVED IN AND SUPPORTED TO TITLE?

A: The Agricultural Land Program started in the early 1980s. We have gone through 3 Agriculture Policies: 1982, 1991 and 2006 (current). The early agricultural titles were not raised by me. However, I would say that the majority of farm properties or agricultural lots in Yukon had my finger prints on them. As the Agricultural Land Coordinator, I processed the agricultural land applications, prepared the legal documents, processed the legal transactions, monitored the developments, and then did the legal paper work to grant title ownership to the successful farmers and agricultural land clients. On records, from 1983 to 2013 (30 years), we have titled 342 farm properties or agricultural lots. They represent 13,642 hectares of agricultural lands that have been developed and gone to private title ownership.

Q: WHAT DO YOU LIKE THE MOST ABOUT WORKING FOR THE YUKON GOVERNMENT AND MANAGING THE AGRICULTURAL LAND PROGRAM IN YUKON?

A: I have gained much satisfaction working for the Yukon government and the Agriculture Branch. I enjoyed doing my work, both independently and as a team member with my co-workers. Agriculture Branch co-workers were friendly, knowledgeable, cooperative and helpful.



The Agriculture Land Program created many benefits to Yukon and its people. It is more than just a land development program. It is also a program to support and promote the agricultural industry in Yukon and beyond. Knowing I was part of this good work gave me tremendous satisfaction.

Q: WHAT DO YOU THINK IS THE MOST SIGNIFICANT CHANGE OVER YOUR TIME WORKING WITH THE AGRICULTURE LAND PROGRAM?

A: There are a few significant changes:

- (1) Devolution (effective April 1, 2003) has cut down the processing time of Agriculture and Grazing applications, which no longer have to go upwards for final approval by the Government of Canada.
- (2) The Yukon Environmental and Socio-economic Assessment Act (YESAA, effective Nov.28, 2005) has changed the old review process. There is now a separate Yukon Environmental and Socio-economic Assessment Board (YESAB) which does the assessment of the applications, and makes recommendation to the Yukon government (YG). YG remains the decision body, to approve the applications or not,
- (3) To identify and protect the good lands for agricultural use and development, and make them available to the farmers and agricultural land clients, the Agriculture Branch and Yukon government have changed direction: instead of just allowing the clients to submit their own spot applications at a location of their own choice, Planned Agriculture has become the main driving vehicle of the Agricultural Land Program.

Q: DO YOU HAVE ANY RECOMMENDATION FOR THOSE SEEKING AGRICULTURE LANDS?

A: Go to the right place and talk to the right people. For private farm properties, talk to the title owners, check the real estate ads and newspapers, and ask for professional help from the realtors, sales agents, and real estate companies. To apply for

agricultural lands or grazing lands from the Yukon Government, go to the Agriculture Branch and talk to the staff members there. Applicants should be realistic about their applications. They must do their part, to help process their own applications. The agricultural land applicants must submit a satisfactory Farm Development Plan (FDP) to support their own applications. Continue to communicate with the Agriculture Branch, and don't hesitate to ask questions and seek help from the friendly and knowledgeable staff at the Agriculture Branch.

Q: WHAT IS YOUR FAVOURITE PART OF THE JOB OR A TIDBIT OF HISTORY FROM THE AG LANDS PROGRAM THAT YOU FIND INTERESTING?

A: The favorite part of my job is when an application received approval, when the subject land was disposed of (agreement issued and signed), and when a title was delivered to the farmers and agricultural land clients. It was success, success and success. It was success of the Agricultural Land Program, success of the Agriculture Branch, success of the Yukon government, success of the farmers and agricultural land clients. It was a Yukon success.

Q: WHAT WILL YOU BE DOING AFTER RETIREMENT ? WILL YOU MOVE BACK TO VANCOUVER ?

A: I'll have plenty of time to pursue my music and creative interests. I may become a peace activist and do some volunteer work as well. Whether I will move back to Vancouver or not will not change the fact that I have been living in Whitehorse since October 1986. Both Vancouver and Whitehorse are my hometowns. Yes, there is a good chance that I will move back to Vancouver. Honestly, Vancouver is much warmer and less isolated than Whitehorse. Vancouver is

the best and most livable city in North America, and Whitehorse is one of the best and most livable small cities in Canada. I love both Vancouver and Whitehorse.



Photo: Agriculture branch staff, Jill K Ford and Shannon Gladwin

Thank you Mr. Lee for your many years of service, all the best in your future endeavours, and cheers to all the work you did supporting the development of Yukon's agriculture industry.

A familiar face is replacing Edward in the interim. Shannon Gladwin, our admin assistant for the last few years is filling the role as Lands Coordinator. Shannon has been with the branch for 4 years and over the last year has spent a portion of her time working with Edward to become more familiar with the Lands Coordinator roles and responsibilities.

With Shannon in a new job, we have a new face at the front desk. Jill K Ford will be manning the helm at the front desk. Jill brings with her some Yukon agriculture history growing up on an elk farm in the Takhini Valley.

YUKON PRODUCER PROFILE

HIGHLIGHTING PRODUCERS AND THEIR AGRI-BUSINESSES

This column is an opportunity to introduce readers to farm operations in Yukon. This segment features Yukon's amazing producers, farm products and how farmers are overcoming some of our climate, production and market obstacles.

THREE SLAVES FARM ANN-MARIE AND GERRY STOCKLEY

Ann-Marie and Gerry Stockley are the owner/operators of Three Slaves Farm just north of Whitehorse on the North Klondike Hwy. Three Slaves Farm is light heartedly named to include their three kids in the farm operation by proposing the kids will be farm labour. They have a good sense of humor and are working towards making the farm a family operation by providing opportunity for their young family to be involved. Kyle, Paige and Jaxon, thirteen, eleven and eight are part of the farm and have already started to work on the farm either helping with the everyday chores or on their own agriculture business. Kyle has a small business of supplying aged manure to gardeners, Paige is working on a small turkey business and Jaxon is moving toward meat rabbits. This is Ann-Marie and Gerry's way of getting the kids involved and a great learning opportunity for each of the kids. They hope in the long run the three little slaves will become valued partners of the farm.



Gerry and Ann-Marie bought the farm in 2005 from Gerry's parents Graham and Pat. Graham and Pat cleared the land and turned it into fields of hay through the agriculture land program back in 1981. The farm consists of 196 acres with 98 acres of hay fields and is located on the east side of the North Klondike Hwy, near Vista road. The property has a few terraces that slope towards the Yukon River, with some richer organic ground on the lowest benches.

Since buying the property Ann-Marie and Gerry have become more invested in farming, partly as a result of being land owners and also because of their participation with Canadian Young Farmers. They have represented Yukon on multiple occasions at Canadian Young Farmers annual conference. Meeting other Young Farmers from across the country during the conference has really energized Ann-Marie and Gerry to get serious with their property and aspire to be the best farmers they can be. They credit Young farmers for encouraging them to farm and think of their operation as a business. They have been working on their business plan and expanding their farm operation. Three Slaves

Farm was one of their first steps in creating a business identity, and they have gone so far as to develop a logo and print some shirts with it for the whole family.

Ann-Marie and Gerry have taken many steps to improve their farm operation; they have redesigned the shape of some of their fields to make work easier, and are in the process of rejuvenating the fields to get rid of the weeds, bushes and trees that were making their way back onto the land. They now have 48 acres planted into hay and another 50 acres in transition to hay planted with oat hay mix for this season. They have worked through the process of getting their water license and are in the process of setting up irrigation for the farm and, if all goes as planned, should have the equipment running on the lower hay fields before the end of this season.

During the last few years while they were rejuvenating their fields they realized they would not have any hay (hard to be a hay farmer with no hay). But there are plenty of hay fields in the area that are not actively being used and they realized there was an opportunity to get these fields farmed for the right price. Gerry approached his



neighbors who were not haying their fields and started working out crop share arrangements to hay the fields which allowed them to develop their hay business. It has been so successful that they are now managing 1300 acres in the area and are developing what is becoming the farms core business of custom farming. They are working with their neighbors to build their hay business and as their own hay fields come into production they will be one of the larger hay producers in the Yukon. This has turned out to be a win-win situation for the land owners and Three Slaves Farm. Land owners get their properties back into good production and Three Slave Farm build their business.

Like any good operation, diversifying is a good business practice. Custom farming the fields in the area has provided them with additional farm income, but they have also diversified to have off farm income from snow removal, and on farm income from paint ball and RV storage just to name a few.

Their biggest challenge has been with convincing horse owners that still buy hay from down south that Yukon hay is on par with what they are bringing up the highway. They have also realized that the window for working on the land is short and they cannot afford to have equipment down and are slowly developing an arsenal of tractors and hay equipment. They learned that you always need a backup plan, a backup tractor, backup mower, backup baler and extra shear pins, blades and teeth. They are up to five tractors ranging in years from a 1950 to a couple of 1980s-era John Deere units for some of the big work.

Gerry's custom farming business is expanding and he is developing

his knowledge to bring land back in production. Between some techniques he has developed with his skid steer and some of the equipment he has purchased, including a large root rake, heavy breaking cultivator and breaking disk, he has become very successful in getting the land back into production.

Ann-Marie and Gerry are full time into farming, and as they continue

to work with more neighbors, bringing more fields into production, fertilizing, irrigating and furthering their equipment inventory they will only help to build our agriculture industry and boost the amount of hay available in the territory.

For more information about Three Slaves Farm, contact Gerry at 334-1250. Hay is usually ready in late July. They try to sell from the field, but will also deliver if necessary.

NFACC EQUINES CARE AND HANDLING CODE OF PRACTICE

The Code of Practice replaces its predecessor developed in 1998 and published by the Canadian Agri-Food Research Council. The National Farm Animal Care Council (NFACC) Code development process was followed in the development of this Code of Practice.

The NFACC Code development process aims to:

- link Codes with science
- ensure transparency in the process
- include broad representation from stakeholders
- contribute to improvements in farm animal care
- identify research priorities and encourage work in these priority areas
- write clearly to ensure ease of reading, understanding and implementation provide a document that is useful for all stakeholders.

The Codes of Practice are nationally developed guidelines for the care and handling of farm animals. They serve as our national understanding of animal care requirements and recommended practices.

Codes promote sound management and welfare practices for housing, care, transportation and other animal husbandry practices.

Codes of Practice have been developed for virtually all farmed animal species in Canada. NFACC's website provides access to all currently available Codes (www.nfacc.ca).

The Codes of Practice are the result of a rigorous Code development process, taking into account the best science available for each species, compiled through an independent peer-reviewed process, along with stakeholder input. The Code development process also takes into account the practical requirements for each species necessary to promote consistent application across Canada and ensure uptake by stakeholders resulting in beneficial animal outcomes. Given their broad use by numerous parties in Canada today, it is important for all to understand how they are intended to be interpreted.

For a copy of the Equine code of practice go to: www.nfacc.ca/pdfs/codes/equine_code_of_practice.pdf

POULTRY HEALTH WORKSHOPS

A SUCCESS IN DAWSON CITY AND WHITEHORSE

By Jane Harms, DVM

In April 2014, the Yukon government's Animal Health Unit and Agriculture Branch co-hosted several workshops on poultry health as part of the Yukon Livestock Health Program. Folks who raise or who are thinking of raising poultry met with a poultry veterinarian, heard presentations on poultry husbandry and health, and shared their experiences with raising poultry.

One evening workshop was held in Dawson and an all day workshop was held in Whitehorse. An evening session of continuing education for Yukon veterinarians and clinic staff was also held in Whitehorse. The presenter at the workshops was Dr. Victoria Bowes, a poultry veterinarian with the BC Ministry of Agriculture and small flock owner herself. Simone Rudge, Tom Rudge and Joanne Johnson, all Yukon residents and experienced poultry farmers, also provided presentations on their experiences raising chickens at the Whitehorse workshop.

All three of the workshops were very well attended, with lots of interesting discussions around poultry health. We are confident the workshop participants gained useful information that will help them continue to raise healthy birds.

Also as part of the Yukon Livestock Health Program, the Yukon government has published a poultry health handbook. You can pick up a printed version from the Agriculture Branch office in Whitehorse or view/download it online at http://www.emr.gov.yk.ca/agriculture/pdf/Poultry_Health_Handbook_final.pdf



AGRICULTURE DEMONSTRATION DAY

DATE: WEDNESDAY AUG 6, 2014.

TIME: 11 A.M. TO 2 P.M.

The Agriculture Branch is hosting its annual demonstration day Wednesday, August 6, 2014, and everyone is invited. The event brings together the agriculture community during the summer to highlight the projects being conducted at the Research Farm and to share the season's challenges and wins. There will also be a barbeque over the lunch hour featuring Yukon-grown food, thanks to the skill of our territory's producers.

The research farm continues to introduce new demonstration and research trials to support Yukon's maturing agriculture industry. The farm is expanding to include a new orchard and an organic forage evaluation. Other areas of the farm are managed to best represent the different components of our industry. The main fields under irrigation are designated hay/forages, market garden/vegetables and grains and pulses. There is also a dry-land area to the south of the four main fields, which includes dry-land grain, pulses, and forage research and demonstration trials.

The research farm is located in the Gunnar Nilsson and Mickey Lammers Research Forest just north of Whitehorse near the corner of the North Klondike Highway and the Hot Springs Road. We will have a sign out on the North Klondike Highway to point you in the right direction. If you are driving from Whitehorse and find yourself at Takhini Gas, you have gone about 200 meters too far.

Please come join us and take a tour of the research farm. The barbeque will start at 12:00 noon. Bring your lawn chairs and stay awhile, or bring your hiking boots and stroll some of the research forest interpretive trails.

Hope to see you there,
The Agriculture Branch.

FROM THE GROUND UP YUKON'S HEALTHY CHOICE FUNDRAISING CAMPAIGN.

From the Ground Up Yukon is a healthy fundraising initiative that was first piloted in fall 2012 through Health and Social Services Health Promotion Unit. In the first year, two schools participated and 500 boxes of locally grown vegetables were sold. In the second year nine schools participated and 2083 boxes were sold. That's 42,000 pounds of locally grown and harvested vegetables. More than \$36,000 was raised for participating schools.

This campaign offers schools and our community the opportunity to:

- Get a variety of fresh, locally grown vegetables.
- Support our Yukon farmers.
- Promote healthy eating to Yukon students, parents, teachers and community members.
- Feel good about supporting fundraising events for school events, such as field trips and graduation.
- Raise money for schools.
- Help out our community by purchasing a vegetable box for donation.

For 2014, based on the evaluation and feedback from the community the program:

- Will be evaluating a small and large box option as per customer feedback.
- Has actively explored the involvement of other farmers. This was done in the spring, by seeking expressions of interest, sending invites to Yukon farmers via Yukon Agricultural Association, Growers of Organic Food Yukon and the Fireweed Community Market society. Three Yukon farmers responded, two who could meet the criteria and one who expressed interest in possible future involvement. Rivendell farm will be joining the program and will provide up to 1000 small boxes of produce. The large boxes and any remaining small boxes will be provided by Yukon Grain Farm.
- Will be providing an option to donate a box or more. This great idea came from feedback from customers. This year customers will be able to order boxes that will be donated by their school to others in the community.



From The Ground Up is now into its third year and 14 schools are signed up to participate and who knows how many pounds of vegetables will be sold this year.

Students sell boxes of fresh, locally grown veggies.

Schools receive 50% of the profits



From the Ground Up Yukon Healthy Choice Fundraiser supports healthy messages being taught in classroom and extends the benefits beyond the classroom by supporting healthy eating at home and in the community. The results from the surveys show that there is an interest from both schools and community members to promote healthy choices and to participate in this healthy fundraising option again.

For more information about From the Ground Up and to view videos promoting the program and agriculture go to www.yukonfromthegroundup.ca.

BEWARE OF THE BOTTLE RAISED MALE ORPHAN!

By Joseph M. Stookey
Professor of Animal Behaviour
Western College of Veterinary
Medicine

Most people have an appreciation and understanding that mature male animals (bulls, rams, stags, etc.) are potentially dangerous, but most people fail to appreciate that the most dangerous males are those that have been bottle raised. Such males become dangerous because of the fact that they have imprinted onto people; it has neither to do with how they were treated nor is it due to their genetics. Bottle raised males are simply “programmed” due to their hand rearing to one day threaten their human rivals

How is it possible for a tame pet to turn on its caretaker or other humans? First off, all avian and mammalian neonates are born with a preprogrammed drive to imprint onto their mother. Imprinting refers to a critical period of time early in the animal’s life when it forms attachments and develops a concept of its own species’ identity. Imprinting provides animals with information about who they are and for males it determines specifically who they will find attractive when they reach sexual maturity. Only a few species like cow birds and cuckoos, that are essentially parasites in another bird’s nest, can be reared by surrogate parents and get things “right” when they reach sexual maturity. The famous Austrian zoologist, Konrad Lorenz demonstrated the imprinting process in goslings and ducklings and showed that in the absence of their real mothers these precocial birds would imprint onto their human care taker.

Imprinting has long lasting and important biological and psychological effects on adult sexual behaviour, which is often irreversible. Males that have been imprinted onto another species tend to court the surrogate species that raised them. For example, ram lambs that are raised on nanny goats will court and try to breed female goats when they reach sexual maturity and they show very little interest in ewes. The same pattern unfolds in birds. That is why in captive breeding programs for endangered species like the whooping crane or the California condor the hatchlings are raised and fed by bird puppets. The human caretakers must stay hidden from the young birds in order to ensure they are properly imprinted onto the correct species and not imprinted onto humans. Fortunately young females that imprint onto the wrong species are usually not affected and will remain attracted to the courtship displays from males of their own species. That is why ewe lambs that are raised on nanny goats will breed to rams even though their surrogate mother was a goat.

The point to remember is that orphan males of most species will imprint onto their surrogate mothers. If humans become the surrogate species it creates a potentially dangerous situation when the male reaches sexual maturity. In addition to the male’s misdirected attraction, he will have bouts of aggression that he will direct against his human “competition”. Male aggression is a normal part of sexual behaviour. In nearly all our livestock and wild species (dogs and cats may be the exception) bottle raised intact males will show aggression towards humans when they reach sexual maturity.

A few years ago a dairy producer, near my hometown, was killed by their dairy bull. Most people appreciate that dairy bulls are dangerous, but they mistakenly believe that dairy bulls are dangerous because of their genetics. It is true that most dairy bulls are dangerous, but it has more to do with their rearing conditions than their genetics. Most dairy bulls are hand reared in isolation which contributes to their behaviour towards humans when they become adults. Dr. Ed Price, a behaviour researcher from the University of California at Davis, has shown that Hereford bull calves raised in isolation and hand fed by humans became dangerous to people when they reached adulthood, whereas their group-raised counterparts where not mean towards people. If you must raise dairy bulls, either raise them in groups or adopt them onto surrogate cows to rear until weaning and avoid imprinting them onto humans.

There are numerous examples of intact male animals that were wonderful pets as young animals, but grew up to become killers or potential killers of their human caretakers.

There were 15 deer related human fatalities over a five-year period in the United States (Langley and Hunter, 2001); many of these were likely the result of bottle raised males. During the same time period another 142 humans were killed by cattle. Though the statistics did not state the exact circumstances, some of these fatalities were certain to have been caused by hand reared bulls. The “berserk male syndrome”, talked about in llama circles, whereby a male llama suddenly becomes aggressive towards people is not a syndrome per se, but the result of bottle raising the male llama. Even

bottle raised ram lambs that seem so friendly and docile have been known to inflict severe injury onto their caretakers or an unsuspecting visitor (who turns their back towards them) when the ram becomes mature.

What should you do with orphan male newborns? The best option is to look for other lactating females in the herd or flock who may have lost their own offspring or who have additional milk. Such females can be excellent candidates provided that they can be tricked into accepting the orphan as their own. This offers the best possible method for rearing the orphan since a surrogate mother will likely have the right milk composition, plus she is willing to remain "on call" for 24 hours a day. The next best option is to castrate the orphan males before they reach sexual maturity and/or rear orphans in a group of other young to avoid imprinting them onto people.

The take home message is that newborn male orphans of nearly all species, especially deer, elk, bison, cattle, sheep, goats, llamas and even horses should never be bottle raised or at the very least should be castrated before reaching sexual maturity in order to avoid a dangerous and potentially lethal future situation. Please help spread the word.

References,

Langley, R. L. and J. L. Hunter. 2001. Occupational fatalities due to animal-related events. *Wilderness and Environ. Med.* 12:168-174.

Price, E.O. and S. J. R. Wallach. 1990. Physical isolation of hand-reared Hereford bulls increases their aggressiveness toward humans. *Appl-Anim-Behav-Sci.* 27:263-267.

FERTILIZERS

WHAT ARE THE OTHER COMPONENTS?

By Matthew Ball

As your Agrologist, I often field questions about what fillers are in fertilizers that are used up here. I.e.: if the formula is 46% N what is the other 54%? We have access to a wide range of fertilizers, from synthetic products such as urea and triple super phosphate to animal by-products such as blood meal, or mined products such as potassium sulphate. Below is a listing of some of the major fertilizers used in the territory and their ingredients.

UREA 46-0-0

Synthetically formulated

Aka: NH_2CONH_2 , $\text{CO}(\text{NH}_2)_2$, carbamide

- 95.5-97.5% Urea contains nitrogen, hydrogen, oxygen and carbon
- 1-1.5% Biuret (result of condensation of urea molecules - different organization of N, H, C and O)
- .1-.4% water

TRIPLE SUPERPHOSPHATE 0-45-0

Synthetically formulated

Aka: GTSP, Concentrated superphosphate, calcium bis(dihydrogenorthophosphate)

- 58-95% Superphosphates, concentrated (P_2O_5)
- 1-20% Calcium sulphate (CaSO_4)
- 0.1-15% Calcium hydrogen orthophosphate (CaHPO_4)
- 0.1-10% Fluorapatite ($\text{Ca}_5(\text{PO}_4)_3\text{F}$)
- 0.1-5% Orthophosphoric acid (H_3PO_4)

POTASSIUM SULPHATE 0-0-50

Mined Product

Aka: K_2SO_4 , sulphate of potash, SOP

- 10-15% Potassium hydrogen sulfate (KHSO_4)
- >85% Potassium sulphate (K_2SO_4)

CALCIUM NITRATE 15.5-0-0 + 19% CL

Synthetically formulated

Aka: $\text{Ca}(\text{NO}_3)_2 \cdot \text{NH}_4\text{NO}_3$, Nitric acid, Nitrocalcite, Calcium Ammonium Nitrate

- 75-85% Calcium nitrate
- <10% Ammonium nitrate
- >12% Water (within the granules)

BLOODMEAL

Animal byproduct

Components of Vertebrate Blood

- Proteins: made of amino acids
 - Carbon group, Hydrogen (-H), carboxyl group (-COOH), amino group (NH_2) and unique side chain or R-group
- Fatty Acids: Chains of carbon, hydrogen and oxygen
- Urea: $\text{CO}(\text{NH}_2)_2$
- Nutrients and vitamins in trace amounts including Ca, Fe, and P
- Glucose: $\text{C}_6\text{H}_{12}\text{O}_6$
- Hormones
- Electrolytes: Na^+ , K^+ , Cl^-

BONE MEAL

Animal byproduct

- High in phosphorous and calcium
- Collagen - protein
- Carbonated hydroxyapatite $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$

MIRACLE-GRO 20-20-20

Synthetically formulated

- Urea [$\text{CO}(\text{NH}_2)_2$]
- Sodium molybdate (Na_2MoO_4)
- Ammonium phosphate, monobasic ($\text{NH}_4\text{H}_2\text{PO}_4$)
- Zinc sulfate (ZnSO_4)
- Potassium nitrate (KNO_3)
- Copper sulfate (CuSO_4 or Cu_2SO_4)
- Manganese sulfate anhydrous (MnO_4S)
- Boric acid (H_3BO_3)
- Ferric sodium EDTA ($\text{C}_{10}\text{H}_{12}\text{FeN}_2\text{NaO}_8$)

YUKON AGRICULTURAL ASSOCIATION UPDATE

The following board members for the 2014-2015 term were acclaimed at the May 3rd AGM:

Executive

Mike Blumenschein-President
 Alan Stannard-Vice President
 Tiana Zakus-Treasurer

Directors

Ralph Mease
 Jim Dillabough
 Greg Paquin
 Steve Mackenzie-Grieve
 Teddy Fagbamila
 Jackie McBride-Dickson

YAA is pleased to welcome the newcomers, and extends a Thank You to non-returning board members Wayne Grove & Bill Drury.

The YAA quarterly newsletter is available on-line at <http://yukonag.ca/resources/newsletters.cfm>

THE KIDS ON THE FARM

The Kids on the Farm (KotF) program is in its second pilot year and is receiving lots of positive feedback from teachers, students and farmers alike. This program is a Growers of Organic Food Yukon project, funded by the Canada-Yukon Growing Forward 2 Agriculture Education Program.

The KotF program's goal is to cultivate the knowledge, appreciation and awareness of agriculture among Whitehorse students through experiential learning. KotF facilitates school field trips to local farms by providing resources for teachers to connect with farmers, as well as to deliver agricultural education in the classroom before and after tours. Farmers are provided with resources to help them deliver educational, fun and safe school tours to all ages.

This spring, a total of 15 tours to 7 local farms have taken place in just 4 weeks. Over 300 students from kindergarten to grade 9 and from 10 different schools got to visit working farms, view animals, plant seeds and learn about where their food comes from.

KotF tours will resume when schools are back in session, up until September 30th.

FOR SALE

3 point hitch 5' Tandem offset Disc 18": \$500.00
 Thompson Seeder Model 53 B: Free
 10' Tedder, 3 point hitch, 20 hrs: \$2 000.00
 Hydraulic Log Splitter: \$450.00

Located in Mary Lake
 Contact 867-668-5025 or cell 867-334-5836

2014 YUKON CULINARY FESTIVAL,

Thursday, July 31

- 11am-2pm: Salmon Bake, Carcross
- 4pm-6pm: Fireweed Market Cooking Demo, Whitehorse
- 7pm-9pm: Tastes of Whitehorse (ticketed event)

Friday, August 1 (Dawson City)

- 9am-12pm: Chefs tour of local farms
- 3pm-4pm: Bannock vs. Sourdough competition (ticketed public event)
- 7pm-9pm: Tastes of Klondike (ticketed event)

Saturday, August 2, FOOD DAY CANADA

Dawson City (featured event):

- 8:30am-10:30am: Sourdough pancake breakfast • 1am-1pm: Farmer's Market Tour (Free public event)
- 7pm-9pm: Cooking Demo at the Commissioner's

Whitehorse:

- Frog Mountain Food Festival (August 1-3, 2014)
- SS Klondike Croquet Tournament, BBQ & Cocktail Reception
- Fireweed Market with wild food presentation & foraging walk

Faro:

- Wild Game Frenzy – a celebration of wild foods

Sunday, August 3

- 7pm-9pm: Feast of Farms @ Rivendell Farms (dinner with Yukon Brewing, ticketed public event)

For more information go to www.tiayukon.com/Events/TheYukonCulinaryFestival.aspx

InFARMation is:

A Yukon government newsletter published by the Department of Energy, Mines and Resources, Agriculture Branch. 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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