#### Lakeland Agricultural Research Association

Volume 7, Issue 4

2016



# The Verdant Element

### **LICENSED TO FARM**

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Let's face it, the landscape of agriculture is rapidly changing, let alone how fast the world we live in. The average person currently is at least **3** generations from the farm, and the majority of the population lives in urban settings. We are all affected by public opinion and their perception of agriculture and the abundance of misinformation that is available. Everyday it seems like you can cross paths with someone who is anti-GMO, anti-antibiotic and hormones without even knowing anything about the subject. Take the laying industry for example and how they have been pressured to move from conventional housing systems to systems that are not better for the birds or for managing flock health, but rather what public perception deems acceptable. This past year alone has seen changes that we have not fully understood the impacts from. Bill 6, the carbon tax and changing regulations have put many strains on the agriculture industry. Farmers and ranchers vehemently protested the introduction of Bill 6, however much of the general public did not understand why. Their perception was that the family farm was operating in an unsafe manner and why would farmers not want regulations to "make" the industry safer. This lack of understanding, both on the public and government side is detrimental to our industry.

With Remembrance Day, as well as with the recent election in the States there has been much ado on social media. One quote in particular grabbed my attention which is:

FIRST THEY CAME FOR THE SOCIALISTS, AND I DID NOT SPEAK OUT-BECAUSE I WAS NOT A SOCIALIST.

THEN THEY CAME FOR THE TRADE UNIONISTS, AND I DID NOT SPEAK OUT-BECAUSE I WAS NOT A TRADE UNIONIST.

THEN THEY CAME FOR THE JEWS, AND I DID NOT SPEAK OUT-BECAUSE I WAS NOT A JEW.

THEN THEY CAME FOR ME-AND THERE WAS NO ONE LEFT TO SPEAK FOR ME.

MARTIN NIEMÖLLER (1892-1984), LUTHERAN MINISTER AND EARLY NAZI SUPPORTER WHO WAS LATER IMPRISONED FOR OPPOSING HITLER'S REGIME

Ultimately, if we do not speak out we are no longer going to be the one who is "steering the tractor". Which brings me to the topic of agvocacy and social license. Are we licensed to farm??

**Continued** on page 2

## Licensed to Farm

So what is social license? The definition is "the level of public trust granted to a corporate entity or industry sector by the community at large and its key consumer base. Public trust is the belief that activities are consistent with social expectations and the values of stakeholders, and earned through industry engagement, operating practices, and expressed values. Social license is slow to build, but quick to erode." - Ted Menzies (<u>http://www.realdirtblog.ca/what-does-social-license-mean-for-agriculture/</u>) In a nutshell social license is the ability to self regulate.

We as an industry are still operating with the mentality that people are still connected to the farm and understand farming practices. So if we do not tell our story, advocate (or agvocate) for agriculture, then who is? By remaining silent we are letting the PETA's and March Against Monsanto's promote their messages and that is what the public believes agriculture is. We are letting the consumer believe that their "free range vegetarian" chicken from A&W is a thing of existence (because what would people think when they found out that chickens will eat anything that moves including each other?). The consumer is going to define what we produce no matter what, but they need to have the correct information to base their purchasing power on. We need the public to trust us, otherwise regulations will do it for us as seen with Bill 6.

We have taken self regulation and our social license for granted here in Canada. I worked in Denmark for a time on a dairy farm where the agricultural industry is very regulated. We had to call a veterinarian to do anything. We were not allowed to administer a needle of any kind. Vaccinations and any form of treatment required a vet. Animal records had to be meticulous, and calving records were submitted weekly. The amount of fertilizer we could purchase was determined by the government based on the amount of animals we had and the operations' land base.

We need to promote ourselves, our industry and our stewardship. We need to be visible, not only in our communities, but with our urban neighbors. The majority of the population globally is urban, with every year having far fewer rural people, and even less agricultural producers. Things like open farm days, the Classroom Agriculture Program, and even farmers markets can help educate and encourage people to learn more about where their food comes from. It puts a face to the producer, a story of how things are grown and creates a connection to who is growing their food and how they are producing it which fosters trust.

We need to have conversations and listen to understand, because without understanding the void between our urban neighbors to whom we want to sell our commodities, will increase, making it harder for us to stay in the industry we love. So start today, have a conversation, advocate about what you do and why you do it. If we remain silent, we will one day realize it is too late and have no voice at all.

Natural Capital include things such as wetlands, streams, rives and forests. These provide value that society gains by maintaining them called an Ecological Good and Service. These values include wildlife habitat, carbon capture, pollinator habitat and can improve air and water quality.

> Consider having an Open Farm Day, where people can come and learn about agriculture and how their food is grown.

# Tall Buttercup



Tall Buttercup is a perennial that spreads by seed. It produces an oil called protoanemonin that is toxic to cattle and grazing animals. Most poisonings occur when the plant is juvenile and the young leaves and stems are consumed; but is

mostly avoided by grazing livestock. Dried plants pose no harm as the oil is not present. Symptoms of poisoning can include: blistering of the skin, mouth and digestive tract; paralysis; convulsions; and death.

Pest Wate Tall Buttercup prefers wet soils, so the population may recede in drier years, but then repopulate in wet years. It can grow to almost a meter in height, with an erect hollow stem. Leaves on the lower stem are 3-8 cm long and are deeply divided into 3-5 lobes. The upper leaves are smaller and hairy, divided into 3-4 narrow segments. Flowers are bright yellow on long stalks with 5 petals that are 10-14 mm long. The flowers can appear shiny. Each plant can produce about 250 seeds that remain viable in the soil for up to 4

years. The seeds are easily transported by water.

Control: the best way to control tall buttercup is outcompeting it with a good stand of grass or forage. New buttercup

plants germinate in the bare patches as they have a hard time in established tall vegetation. Buttercup seeds germinate in the late fall, so go into winter with a healthy pasture (ensure adequate carryover). In severely infested pastures, cultivation for several years with an annual crop planted can reduce the stand.



Mowing prior to the seed set will help to

reduce the infestation. If found in small patches, hand picking is an option but wear gloves and long sleeves as the oils can cause skin blisters. The best control is early spring spraying (when the average daily temperature is above 15°C) with a herbicide combination including 2,4-D.

During last years poor hay production, hay that was brought in may have contained tall buttercup and can be seen in areas that it was fed out.



To report prohibited noxious weeds call the Alberta Pest Surveillance System at :

310-APSS (2777)

### **Riparian Health Assessment**

The riparian zone is the interface between the upland and a water course. A healthy riparian area: traps and stores sediment; builds and maintains banks and shorelines; stores water; recharges aquifers; filters and buffers water; creates primary production and much more!

A riparian health assessment is a tool designed to evaluate the site and can provide a foundation to build an action plan and identify priorities.

If you would like a FREE Riparian Health Assessment conducted on your property or more information please call Kellie at 780-826-7260 or email sustainag.lara@mcsnet.ca

# Soils School with Nicole Masters

In November we were joined by Nicole Master of Integrity Soils from New Zealand. She lead a condensed version of her soil school with about 80 Lakeland College students and then the following 2 days lead 40 participants on a two day intensive soil school. Nicole is an agroecologist which encompasses regenerative agriculture. Regenerative agriculture incorporates enhancing the natural (nutrient) cycles, repairing disturbance events, minimizes inputs, builds outputs and creates a resilience of the land. In essence building healthy soils.

Healthy soils have resilience by:

- \* Able to hold onto and release nutrients and water
- \* Have great structure
- \* Being full of life
- \* Protecting against pests and disease
- \* Decomposing organic materials and detoxifying pollutants
- \* Buffering against changeable climate
- \* Being full of secondary metabolites, plant growth hormones and enzymes
- \* Growing healthy, nutrient dense crops



Soils are the lungs, liver, stomach and skin of the planet with the global carbon cycle, detoxifying pollutants, digestion of organic materials to produce food for us and protection.

### You may have heard the term "light farmers" before. Your profit is directly related to your ability to harvest solar energy.

To be able to maximize solar capture you need to have healthy soils. If you think in

the rule of 3: we can survive without oxygen for 3 minutes, without water for 3 weeks and without food for 3 months. Soils are very similar. Healthy soils need to be able to breathe; good soil structure that is aerated and not compacted is essential. They need water, and need to be able to digest the organic matter. You need to feed your soil microbes! A soil with a thick thatch, that is compacted with a huge layer of undecomposed organic matter is not a healthy soil. And lastly you need to soil test to see what is your limiting factor for balanced nutrition. Soil fertility was sufficient before we came and managed it. The native prairie grasses were productive and required no additional inputs from humans. We need to work with the natural nutrient cycles to increase our profits by reducing our inputs and maintain/improve our yields. In every breath that you take it is 78% nitrogen, 21% oxygen and the other 1% is primarily argon but contains other molecules. There is an abundance of FREE nitrogen in the air that if you had healthy soils with abundant microbiology you could access. In most systems where you are adding nitrogen fertilizers, for every 100 units you are on average only retaining and your crop is utilizing 5-15 units, with good management you may get up to 25 units. That is a huge loss that impacts your pocketbook. The amount of nitrogen available is directly related to soil compaction. The more compacted your soil is the less accessible nitrogen is. A quick way to look at nitrogen is looking at your plant nodules. When they are pink/red they are healthy and actively fixing nitrogen, when they are green it means that they had been working but have stopped (due to a change in temperature, pH, cobalt deficiency, etc.), and when they are white they never have fixed nitrogen.

Growing Forward 2 provides programs and services to achieve a profitable, sustainable, competitive and innovative agriculture, agri-food and agriproducts industry that is market-responsive, and that anticipates and adapts to changing circumstances and is a major contributor to the well-being of Canadians.

### **GROWING** FORWARD

For assistance with any of the Growing Forward 2 programs please contact Kellie at LARA. For a complete list of available programs go online to:

http://www.growingforward.alberta.ca Growing Forward can also assist with funding for things like succession planning, safety planning and holistic management under the Business Opportunity program.

Recently released is the On-Farm Solar Photovoltaics program. This program covers solar energy systems (includes solar panels/modules, racking, inverters and/or micro-

Install Type	Without an Energy Assessment	With an Energy Assessment
Solar PV Contractor-Installed	<b>\$0.45/W</b> to maximum 20% of project costs	\$0.60/W to maximum 25% of project costs
Self-Installed	\$0.15/W to maximum 10% of project costs	\$0.30/W to maximum 20% of project costs
Grant Maximum	\$50,000	\$50,000

inverters) which are: grid-tied; approved under the Alberta Micro-Generation legislation; have manufactures warranty; and purchased from April 1, 2013 to March 31, 2018.

#### **Growing Forward Stewardship Programs**

Program Area	Eligible Costs	Cost Share
Riparian Area Fencing and Management	Permanent fencing (controlled access or exclusion): • Permanent barbed/electric fencing systems • Construction materials and supplies. NOTE: all materials must be new materials and not materials on hand • Labour and equipment will be paid at a 1:1 ratio to materials expenses. (NOTE: refer to section 7.4 in the Terms and Conditions); Purchase and planting of native trees and shrubs and/or native or non-invasive introduced species of grass and legumes; Seed and seeding operation for revegetation; Cultural weed control systems and mulch	70% to a funding maximum of \$50,000
Year Round / Summer Watering Systems	Deeply buried, shallow buried, or surface pipeline installation used to distrib- ute water within a pasture and protect a water body/water source; Portable watering systems; Year-round watering systems; Troughs, stock tanks, plastic tanks (or similar water storage); Frost free nose pumps; Pumping systems; Power sources such as solar panels, windmills etc. And other electrical sup- plies; Plumbing materials	50% to a funding maximum of \$30,000
Wetland Restoration	Earthwork related to construction or plugging of old drains; Engineering consultant fees for design and construction; Re-vegetation costs (seed plantings etc.); Applicant's equipment use at custom rates; In-kind labour at set program rates (\$25/hour)	70% at funding maximum of \$50,000
Livestock Facility and Permanent Wintering Site Reloca- tion	Construction costs to rebuild an equivalent facility or adequately sized facility in a more suitable location; Plumbing, electrical, fence lines, feeding areas, shelter/wind protection; Earthwork; Engineering design and fees (if applicable); Tear down and removal costs of the old livestock facility; Re-vegetation costs of the old site; Applicant's equipment use and in-kind labour	50% at funding maximum of \$50,000
Used Oil and Lubricant Storage	Double wall steel storage tank design expressly for the temporary storage of used oil and lubricants that have a ULC or CSA approved stamp or plate indicating it is for that purpose (ULC-652)	50% at a funding maximum of \$2,000
On-Farm Water Management	Wells (including test drilling, new pump and well casing, electroseismology test, disinfection of new well); Dugouts (including aeration, fencing and floating intakes); Dams (including intake and fencing); Spring Development; Water tanks/storage/cisterns for low producing wells or as part of a permanent water supply; Buried pipelines Special projects include: Specified water conservation measures (purchase and installation of water use meters, well depth meters for agricultural use of water, well decommissioning by a certified contractor, well pit conversions by a certified contractor; Tie-ins	Various funding levels, refer to the terms of reference

The environment is becoming a more prominent issue. It is a large factor in marketing agriculture and food products in today's global markets. Consumers are demanding more transparency and are demanding high quality and safe products. Reputation of food safety is critical to retain and gain access to domestic and international markets.

Environmental Farm Plans (EFP) provide a tool for producers to self analyze their operation and identify environmental risks, current standards, areas for improvement and also highlight what they are doing well.

Having a completed EFP allows producers to access different funding opportunities, such as the Growing Forward Stewardship Program. It is also useful in product branding that demonstrates specific environmental standards.

#### The EFP Process

An EFP can be completed through workshops or one-on-one session(s). The EFP first identifies the soil and farm site characteristics. Following this, the producer completes only the relevant chapters that apply to their operation; such as wintering sites, fertilizer, pesticides, crop management etc. Upon completion the EFP is submitted to a Technical Assistant for review. Once reviewed the EFP will be returned along with a letter of completion.

The EFP is a living document and should be reviewed and updated periodically.

If you wish to complete an EFP or have any questions regarding EFP please contact the LARA office at 780-826-7260





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Stuck in the mud? Consider an offsite watering system.

SOIL SCHOOL CONTINUED

Soil changes constantly. Whenever there is a disturbance, be it a large disturbance such as a floods, earthquakes, or fire or a small disturbance such as tillage, over/under grazing, or chemical sprays, the ecosystem will have a change both above and below ground. The biology and plant species will change depending on the conditions. New (disturbed) or primitive soils tend to have higher bacterial populations which favor more primitive grasses, mosses and lichens. Old growth and conifer forests tend to favor higher fungal populations. Most agricultural practices create soils that are more primitive with higher bacterial populations and low fungal populations that encourage weed and pest species to flourish.

There is a great Ted Talk with mycologist Paul Stamets titled "6 Ways Mushrooms Can Save the World". Fungi are truly amazing and beneficial organisms. Fungi, in particular the 'Endo' Arbuscular Mycorrhizal fungi (AMF) are extremely important to the health of the soil and the plants that grow. AMF is a symbiotic fungi that works with plant roots. The plant provides sugars to the fungi and in return the fungi provide the plant with nutrients such as phosphorous, zinc, nitrogen, trace elements and water. 90% of plant species form this symbiotic relationship with AMF. The exceptions include brassica, amaranthus, chenopodium, sedges and lupins. AMF aside from providing plants nutrients and water also protect roots from disease and defend against pests. They also produce glomalin, which is a dark sticky substance which improves soil structure, water and nutrient holding capacity and increases soil carbon. The fungi also holds the calcium in the soil which is important for plant cell development and soil structure.

Other important organisms to consider are protozoa and nematodes. Protozoa are single celled organisms that feed on bacteria, and provide a food source for higher organisms. If you have low populations of protozoa you will have low nutrient cycling as protozoa help release the nitrogen and phosphorous held by bacteria and make it available for plant species. 95% of nematodes are beneficial non-segmented worms. They

help guard the plants roots from pests. Nematodes are vital in nutrient mobilisation as they release nitrogen, sulfur and phosphorous to plants when they consume the bacteria, fungi, algae and other nematodes. The soil biology is essential to both plant and soil health. We need to feed our biology and ensure that it is healthy and in return we will see resilient, profitable systems. If you are going to rip (disturb the soil) consider a drip (feeding the microbes with sugars, compost tea, humic, probiotic or fish product).

#### Photo right: roots with AMF from: http://

<u>democracystreet.blogspot.ca/2015/07/glut.html</u> This is what you want your roots to look like when you pull a plant, Rastafarian roots.





# Holístic Management with Kelly Sidoryk

#### February 25 & 26 and March 4, 5, 11 and 12, 2017

Smoky Lake Agricultural Complex

For over 35 years farmers and ranchers in Alberta have used Holistic Management to improve land, grow nutritious food, gain control of their finances and improve their quality of life.

Holistic Management is a values-based decision making framework that integrates all aspects of planning for sustainable social, economic and environmental considerations. Each and every operation is unique and by using Holistic Management farmers and ranchers can achieve improvements in their land and mitigate risk.

#### Module 1

Introduction to HM

Paradigm shifts Enhanced decision making through testing questions Developing holistic goals for higher quality of life, more profit and healthier land Secrets of effective communication

#### Module 2

Review principles of analytical testing questions Learn about using tools and their effects Grazing principles Develop a biological plan

#### Module 3



Principles of holistic financial planning Definition of wealth Enterprise analysis Plan a profit Develop your operations annual financial plan Create a learning (support) group



There is no blanket solution or one size fits all approach to management. This course allows you to consider your own goals and what would work best for you and help you to get to where you want to go. The course is laid out into three modules over the three weekends. The Cost of the Holistic Management Course is \$1,500.00 and Growing Forward 2 funding is available to cover 75% of the course costs. Assistance for applying for GF2 funding is available.

If would like additional details or you are interested to register please call Kellie at 780-826-7260.

#### How CAN WE Assess (Soil) Health?

#### **Soil Indicators**

- Soil structure / porosity
- Colour and number of mottles
- Soil colour / carbon
- Earthworms and dung beetles
- Soil smell
- Infiltration rates
- Surface relief
- Temperature
- Penetrometer, pH, EC
- Soil mineral and biological testing
- Enzyme activity
- Extractable minerals

#### **Plant Indicators**

- Brix / EC / pH
- Plant growth
- Legume nodules
- Weeds / pests / disease
- Plant color
- Urine patches
- Pasture utilization
- Root length and density
- Area of bare ground
- Drought stress
- Input costs to maintain
- Plant tissue test

#### Why are Mycorrhizal Fungi (AMF) important?

- Improve drought resistance
- Increase nutrient cycling
- Major pathway for plants to obtain nutrients such as phosphorous, trace elements and enzymes
- Build and hold soils together
- Plant health
- Pest resistance
- Disease resistance



### Water Wells Don't Last Forever

From the November 21, 2016 Issue of Agri-News

A water well is a significant investment and a vital part of your rural property. Naturally, you want that well to last as long as possible. However, the lifespan of a water well can be quite variable; some may last years while others may last decades and there are no easy answers for why some wells last longer than others. The following are all important factors that can affect the lifespan of a water well:

- Original design and construction of the well.
- Quality and type of materials used in the construction e.g. newer wells are constructed with plastic casings and liners that should last longer than steel casings used in older wells.
- Local geography and groundwater conditions.
- Seasonal fluctuations in ground water levels and long term changes in the aquifer e.g. decreased groundwater levels during dry seasons or droughts.
- Type and quantity of minerals in the water supply.
- Amount of sediment produced during pumping.
- Current age of well.
- How the well is used and maintained e.g. over pumping can decrease the life expectancy of a water well.

Rene Arts, a licensed water well contractor, has been working on water wells since the late 1970s and over the years he has serviced some very old wells. "Some wells can last for a very long time. I have worked on wells

### **Moose Lake Watershed Society Annual Meeting** What's In the Water?

Moose Lake is where many of us call home and where we choose to spend our time boating and fishing and enjoying the outdoors. The Moose Lake Watershed Society was created in 2002 by a group of concerned citizens and it is still active today with the vision to maintain a healthy and functioning watershed and recognize the importance of living within the capacity of the natural environment as a means of ensuring sustainable environmental, economic and social values. Join us to discuss Moose Lake and what the society has been up to in 2016 and where we are going in the future.

Guest presentation from Alberta Lake Management Society about the 2016 LakeWatch Water Sampling of the overall lake conditions and individual bay testing.

February 7, 2017 **Theater Room Centennial Centre** Bonnyville 6:30 PM **Supper Included** To register call Kellie at LARA 780-826-7260 or email sustainag.lara@mcsnet.ca

Moose Lake Handbooks will be available for FREE at the meeting!

that are so old they quit making the parts for them in 1929," admits the licensed water well driller from Westlock, Alberta. "These aren't the norm, but I still keep a stock of supplies on hand specifically to service these older wells."

If you notice a dramatic change in your water quality or a significant change in the flow rate of your well, you should contact a licensed well water contractor to determine what is causing the problem and what can be done about it.

Common causes of well deterioration include mineral encrustation, sand production or biofouling. In all three cases, well deterioration occurs both to the well screen and casing as well as to the surrounding formation itself. "If it's a broken part, such as a pump, you can generally fix the problem," explains Rene. "If it's a hole in the steel casing and it is 100 feet down, you likely have to replace the well."

If you do need to have a new well drilled, choose a licensed water well contractor who has experience in your area and knows the local geology.

There is no simple, short answer as to how long a water well will continue to produce an acceptable quantity of water of good quality. Routine maintenance can extend the life of your well and understanding your well can help you detect changes in water quality before it becomes a more serious problem.

For more information, visit the Working Well website at www.workingwell.alberta.ca or attend a working well workshop. The next Working Well Workshop will be in February or March 2017.



# X-Stream Science with the BRWA

This year LARA assisted the Beaver River Watershed Alliance (BRWA) deliver 7 X-Stream Science programs to 3 High Schools and over 200 students. The program allows students



to find out the health of a river using scientific protocols to collect benthic macroinvertebrates (BMI) and by conducting water quality tests. It also includes factoring in the surrounding land uses, riparian area vegetation to calculate health in relation to the

aquatic BMI and water quality parameters such as pH, temperature, dissolved oxygen, conductivity, turbidity and water quantity by determining flow. For more information go to <u>http://beaverriverwatershed.ca</u>



Tuesday, January 24<sup>th</sup>, 2017 1:00 pm to 4:00 pm Goodridge Hall

Tour of watering systems Get tips on how to set up your own system Meet at Goodridge Hall for coffee and presentations before setting out on the tour







Please pre-register before January 20<sup>th</sup>, 2017 by calling 780.826.7260











**Septic Sense:** Solutions for Rural Living

#### February 2, 2017 at the Bonnyville Centennial Centre Theater

#### 6:30 – 9:00 PM

#### Understanding and taking care of your septic system

Did you know the average person puts 340 liters of sewage through a private sewage system (septic system) every day? For a family of four living in a two-bedroom house, that amounts to 1,360 liters per day and just under half a million liters per year!

Rural property owners are responsible for ensuring their systems operate properly and safely. If you have a septic system on your rural property, you will benefit from attending this workshop. Presenters will teach you how to understand, assess and properly manage your septic system, enabling you to protect your investment in your property and the valuable natural assets associated with your land.

Learn what you can do to properly manage and maintain your septic system. Attend the **Septic Sense** workshop hosted and presented by **Lakeland Agricultural Research Association**, with technical expertise provided by the Alberta Onsite Wastewater Management Association (AOWMA) and materials developed by Land Stewardship Centre (LSC).

During the workshop we will cover:

- What a septic system is and how it works
- Regulations
- Design and installation
- Appropriate use of your septic system
- Maintaining your septic system
- Troubleshooting

To attend the workshop, please pre-register by calling Lakeland Agricultural Research Association Office at: 780-826-7260 or email sustainag.lara@mcsnet.ca

Brought to you by:







#### Lakeland Agricultural Research Association

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Phone: 780-826-7260 Cell: 780-812-1036 Kellie Nichiporik E-mail: sustainag.lara@mcsnet.ca Sustainable farming encompasses a wide range of practices and principles; combining environmental stewardship with profitability and ensuring that the family farm will be



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there for generations to come.

#### DATES TO WATCH FOR:

- Winter Watering Tour January 24<sup>th</sup> in Goodridge
- Septic Sense Workshop at Bonnyville Centennial Centre on February 2<sup>nd</sup>
- Moose Lake Watershed Society Annual Meeting February 7<sup>th</sup> at the Bonnyville Centennial Centre
- Farmer Appreciation Night February 10<sup>th</sup> in Glendon
- LARA AGM and Research Update February 28<sup>th</sup> at Eastbourne Hall
- Holistic Management course with Kelly Sidoryk runs February 25 & 26 and March 4, 5, 11 and 12. It will be held in Smoky Lake

To register or for more information call 780-826-7260

#### Food For Thought...

- Whole birds that you roast for your turkey dinner are typically all females
- Male (tom) turkeys are produced for the value added products such as ground turkey, sausage and deli-meat
- It takes 15-23 weeks from when the poults (one day old chicks) are placed to when they are market ready
- \* Canadians in 2014 consumed 8.5 million whole turkeys

WWW.LARAONLINE.CA

