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# Breaking Ground

**(in Northeastern Ontario) WINTER 11/12**

*A Publication of the North Eastern Ontario Soil & Crop Improvement Association (NEOSCIA)*

## NEOSCIA Bus Tour 2012



Normandin Research Farm (Agriculture and Agri-Food Canada) 75th Anniversary 2011

Over the years, many Soil & Crop associations from southern Ontario have traveled to the North to learn about the opportunities presented by northern agriculture. Some of these bus tours originated in the south-west corner of the Province, and it was a good days trip to get here, but everyone left satisfied with the education and adventure that they took part in.

NEOSCIA has never offered this opportunity to its members, but this will change in 2012!

A 5-day tour of the Lac Saint-Jean (Saguenay) agricultural region in Quebec is being organized. The tour will run from Monday, July 23, to Friday, July 27. The tour will begin at Temiskaming Shores at 10 a.m. on Monday, and end there early on Friday evening.

Saguenay is in the center of Quebec, about 900 km from New Liskeard, and it does take a full day to get there, and another to return. However, the modern agricultural industry is comparative in many ways to agriculture in Northern Ontario. First, it is situated between the 48th and 49th parallel, about the same zone as the Temiskaming-Cochrane region. The agricultural products are similar (dairy, beef, canola, wheat, oats, barley, etc) but their management style may differ from ours. In addition, the region is isolated from the rest of the Province, just as we are in northern Ontario. However, they do have a booming agri-tourism industry, and specialty products such as blue berries, cheeses, and alcohol. There is much to learn from the experience of this agricultural community.

Yes, almost all of the folks in that area are strictly French speaking, but this tour will provide immediate English translation. This is a primary tour component, as an English speaking individual traveling in this area would not get the same luxury. Communication will be KEY!

The organization committee consists of NEOSCIA Regional Communication Coordinator Graham Gambles, OMAFRA rep Dan Tasse (Temiskaming/Cochrane),

*Continued on page 3*

#### NOTE: Sponsors/Advertisers needed for coming year. \$500 for 4 issues!

This newsletter is published 4 times per year. Articles can be submitted in either English or French and should be submitted to the Communication Coordinator (see below). Please supply translation, if available.

Material in this newsletter is based upon factual information believed to be accurate. Action taken as a result of this information is solely the responsibility of the user. We reserve the right to edit articles.

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# **Save The Date! FARMSMART Conference and Beef Symposium Announced!**

(GUELPH) – Plans are well underway for the 2012 FarmSmart Conference and farmers and agri-business personnel will want to circle Sat. Jan. 21, 2012 on their calendar and be sure to attend the always popular event.

Since its inception in 1998 the leading-edge topics and dynamic speakers assembled by FarmSmart organizers have continued to draw a larger audience with each successive event and this year's conference did not disappoint, with over 900 farmers, agri-business representatives, faculty and students gathering at the University of Guelph's Rozanski Hall in January 2011 for the largest FarmSmart Conference to date.

Throughout the daylong event conference delegates will be able to custom design their agenda from the over 50 sessions topics focusing on business, livestock, field crops, energy and the environment, computer applications, global perspectives and general agricultural themes. Sessions run concurrently through the six time slots, with delegates convening for the afternoon keynote address of special guest speaker Guido Hoener, editor of top agrar, Germany's leading monthly farm magazine (circulation approximately 112,000 copies) who will headline as the conference keynote speaker.

Other international speakers confirmed include: Ken Ferrie, an independent consultant and co-founder of Crop-Tech Consulting in Illinois; and Virgil Robinson, an outstanding fundamental and technical analyst with over 35 years experiences whose analysis of commodity market activity is highly regarded on the national American speaking circuit.

Leland (Lee) Leachman of Leachman Cattle, in Colorado is the keynote speaker for the Beef Symposium, held in conjunction with the FarmSmart Conference, speaking on "The Ten Game Changers for Livestock Production in 2020." Leachman Cattle is respected worldwide as a leader in objective selection criteria and composite cattle production.

The 14th anniversary edition of FarmSmart Conference featuring the Beef Symposium will be held Saturday, January 21, 2012 at Rozanski Hall, University of Guelph. Registration begins at 8:15 am and the first session is scheduled to begin promptly at 9 am. Information and program updates for the conference will be posted online at [www.uoguelph.ca/farmsmart](http://www.uoguelph.ca/farmsmart) and on Twitter at [www.Twitter.com/GHSCIA](http://www.Twitter.com/GHSCIA). Look for the official conference brochure distributed in the Tues. Jan. 3, 2012 edition of Ontario Farmer.

The conference is a joint project of the Golden Horseshoe and Heartland Regional Soil and Crop Improvement Associations, in partnership with the Ontario Agricultural College (OAC), the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and various agri-business partners.

## **COMING EVENTS**

### **Grower Pesticide Safety Courses**

**Verner:** in French: Wed., Feb. 29, 2012  
in English: Thurs., March 01, 2012

**Huntsville:** Fri., March 02, 2012

**Little Current:** Thur., March 08, 2012

**Azilda:** Fri., March 09, 2012

**Desbarats:** Sat., March 10, 2012

**Earlton:** in French: Fri., March 16, 2012  
in English: Sat., March 17, 2012

**Cochrane:** TBA

*Call 1-800-652-8573 to register.*

### **Earlton Farm Show**

After 45 years as the flagship of the NEOSCIA, the 2012 Farm Show and Agricultural Conference will be managed by a group of volunteers from the Temiskaming District!

It will run at the Earlton Arena on April 13 &14.

Watch for more info in the March 2012 issue of Breaking Ground.

**SAVE THE DATE! NOW!**

### **Temiskaming Crop Coalition & Grain Growers Annual Meeting**

Thursday, January 12, 2012,  
9:30 am to 3:30 pm  
Kerns Hall (Milberta Road)

### **Temiskaming District**

**Full Slate of Speakers!**

**TCC Contact:**  
Dennis Jibb (705-563-8405)

**OGG Contact:**  
Kevin Runnalls (705-563-2496)

# Breaking Ground

(in Northeastern Ontario)

## NEOSClA Bus Tour 2012

Continued from page 1

FCC director Dany Gingras (Kanata), and Josee Falardeau of Syn-Agri (Notre-Dame-Du-Nord, Quebec).

Here is a brief outline of the tour around the lake, starting on Tuesday morning. Visit the modern Ag Canada Research Station at Normandin, followed by tours of at least 3 area farms (including Dairy) and agri-business in the afternoon. Have supper at the "Grand Jardins de Normandin", followed by another farm visit - (possibly a ginseng grower). Spend the night in Mistassini.

On Wednesday, the blueberry and potato industry along the eastern shore of the lake will be examined in the morning, before travelling to the Alma area on the south shore for tours of leading farms in the afternoon and evening. It is planned to have speakers from the Quebec canola-crushing industry attend a late evening gathering at our hotel in Alma.

Thursday morning will find us touring the south and western edge of the lake, where canola and wheat abound. Pesticide free production practices will be a high-light. A short tour of the St-Felician Zoo will take place in the afternoon, where we will board a "train" to tour a portion of the park that is managed as a 300 year old historical interpretation of Canada as our first settlers found it. There will still be time to visit a couple more businesses in the northwest corner of the region before heading north to Chibougamau for the night.

We return to Temiskaming by early evening on Friday, but not before we have one last stop at a modern chicken farm near Malartic.

At this time, we have not determined the costs associated with the tour. However, we are looking for sponsors from the agri-business community. To them we offer the chance to provide video promotions to the "captive audience" that will be riding the bus - in both directions!

We hope to have about 40 tourists on this trip, and now is the time to sign-up, even if you are not positive that you can make the trip. Final arrangements will be made in late June. Already, there is more than a dozen people who showed interest at the 2011 Earlton Farm Show. Call Graham Gambles at 705-672-3105 (<gamblesgraham@yahoo.ca>) or Dan Tasse at 1-800-461-6132 for more info or to confirm your interest.

This tour is open to all members of local Soil and Crop Associations in the NEOSClA District, and any farmer can join for a paltry \$20. Talk about benefits for your membership!

# A Dose of Cooperation for Northern Farmers Part 1 : The Natural Environment

By Christian Howald, Conseil de la Coopération de l'Ontario

This is the first in a series of six articles discussing the obstacles faced by farmers in Northern Ontario. It is the result of a qualitative research for which twenty agricultural producers from the Nipissing and Sudbury area were interviewed in order to gather their thoughts about the barriers their businesses face and the solutions they have to offer. We will preserve their anonymity because some of their opinions contain personal judgements. Six key factors having an effect on the region's agriculture have come out of these interviews: natural environment, clientele, competition, access to market, governmental intervention and agricultural associations. These six factors directly interplay with the region's agricultural businesses' ability to produce, process, sell their produce and thrive.

Amidst these factors, one key element arises: Farmers not only see themselves as part of the problem but most importantly as part of the solution. They are not simply victims of a poorly structured infrastructure but rather key players in a complex framework. The solutions to their woes lie in their reinvestment in cooperative values, especially mutual help and solidarity, abandoned over the years in favour of industrialization and individualism. What is needed is a return to cooperative principles which flourished in the region in the middle of the last

Continued on page 4

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# Breaking Ground (in Northeastern Ontario)

## 4-H'ers Make Grain Bin Rescues Easier

Up until a couple of years ago, there was no tool to assist in the rescue of grain entrapment victims. However, members of the Lambton Farm Safety 4-H Club in Ontario innovated a Grain Extrication Tool (GET) and provided it to numerous local fire departments and grain facilities.

The GET is an easy-to-use structure made up of four pieces of bent aluminum sheets that are clamped together to form an octagonal shaped tube. The structure is hammered down into the grain to shield the victim, allowing grain against the body to be removed which then makes rescue possible. Getting trapped in grain is potentially fatal.

Flowing grain can behave like quicksand and as a person becomes buried in the grain, it presses against the diaphragm constricting breathing.

Without this tool, rescue workers had to find objects around the farm to stabilize the grain or cut holes in the bin.

Lambton Farm Safety 4-H Club members spent four meetings researching grain safety and developing a prototype of the GET. They then found a shop which would donate space and tools for the club to use for production. Each GET takes one day to build and is sold for \$1,000 which is just enough to cover the cost of materials.

The 4-H club was recognized in 2009 for its innovative idea by receiving a Regional Award under the Premier's Award for Agri-Food Innovation Excellence program. These Lambton youths are to be commended for showing how a simple device can be a lifesaver!



Lambton 4-H Farm Safety Club members: Casey McGee (pictured inside the GET); Other members from left to right include Mark Langstaff, Grant Langstaff, Deidra McGee, Michael McGee, and Jonathan McGee (Photo Courtesy of AgCanada.com)

## A Dose of Cooperation for Northern Farmers Part 1 : The Natural Environment

Continued from page 3

century when the cooperative movement was in full force in rural Ontario.

The first factor having an effect on the viability of agricultural businesses in Northern Ontario is the natural environment. According to the farmers whom we interviewed, it is a region that requires great adaptation by its inhabitants. Northern communities are small, scattered, and winters long and cold.

The farms you find in most of Northern Ontario are not the typical square or rectangular plots you would imagine a southern farm to be. They are riddled with rocks, forests and water bodies. Large cash crop culture is not as easy in the region because arable fields are small, scattered and awkwardly shaped. Equipment repair costs directly reflect this situation because machinery has to travel further and on rougher terrain. Climate in the region is harsher than in other parts of the province and it affects the variety of plants farmers can grow. For example, the Nipissing-Sudbury area historically enjoys about 59 frost free days per year while some varieties of corn need at least 70 days to mature.

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# A Dose of Cooperation for Northern Farmers

## Part 1 : The Natural Environment

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The size of the territory and the low population density makes access to human resources, markets and clients more difficult. Niche markets in Northern Ontario are often comprised of only a few people while in large centers, their numbers can easily be in the thousands. Transport and delivery costs are much higher per capita due to low numbers and long distances.

However, farmers have the ability to adapt to the environment. They realize that they need to select crops and livestock who will thrive in the region's climate. Some say that large culture and cash crops should be left to the areas where there is flat land. The region, with its forests, hills and many waterways is ideal for pasturing and grazing. Unfortunately, due to the BSE crisis, a great number of local farmers have completely abandoned livestock production in order to grow cash crops which are not necessarily acclimatized to the area. They received government funding to tile drain their land and make it machinery accessible for a longer portion of the year. Rather than spreading manure in order to fertilize, they now use chemical fertilizers which have a negative effect on the environment, increase the cost of

production and make the operations even more reliant on financially volatile petroleum products.

Living in a region with a low population density and large open spaces can prove very profitable for the savvy farmer because there are a ton of possibilities to develop new markets. This is contrary to other areas where there may already be several farms producing a certain crop or institutional barriers put in place in a system so large that one voice will go unheard. In a region with low population, one person can achieve much more in terms of progress.

In a cooperative spirit, farmers can pool together and reduce their transportation costs. They can compliment each other by producing a variety of crops or livestock and alternating crops with one and other. There are new opportunities arising with technologies that lengthen growth periods that farmers can take advantage of and make more affordable by joining forces.

With open discussion and cooperation, regional agricultural opportunities can thrive and new ones be developed. Its up to our good farmers to put these thoughts to work.

Le Centre Laitier du Nord



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invites Everyone to the Farm Show & Conference

April 8 & 9, 2011  
at the Earlton Arena

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Northern Ontario Regional Office: 1-800-461-6132

OMAFRA Web Site: [www.omafra.gov.on.ca](http://www.omafra.gov.on.ca)

*Additional Information  
from OMAFRA*



*En français!*

*L'information du Ministère de l'agriculture  
et de l'alimentation de l'Ontario est dis-  
ponible sur le site web du MAAARO en  
français au [www.omafra.gov.on.ca](http://www.omafra.gov.on.ca)*

### Brought to You by the Following OMAFRA Crop Specialists

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# Manure - Tackling the Frequently Asked Questions

by Christine Brown, Nutrient Management Lead – Field Crops, OMAFRA

When fertilizer prices start to increase so do the number of questions asked about manure! Manure is a carefully guarded treasure – black gold – for livestock producers that have figured out the nutrient and organic matter value. However, this is a relatively new concept for many crop producers that have access to manure or other organic materials.

solid manure applications will require significant additional nitrogen.

### *When is the best time to apply manure?*

Applying liquid manure before or into a growing crop is the best method of maximizing nutrients while minimizing environmental impact.

### *Weather isn't co-operating with my application plans. What are my options?*

Soils are saturated and field tiles are running at full capacity. With a wet spring season and this fall's continuing wet weather, many manure storages are at, or close to capacity. A large acreage of corn is still standing in the field and risk of field damage from soil compaction makes any field work prohibitive, especially on heavier soils.

The following are a few options for manure application during a wet autumn. However in doing so, risk of water contamination from subsurface drainage systems and surface runoff must be considered.

#### 1. Is this the year for custom application?

A custom applicator with site specific or GPS capabilities is able to map where manure has been applied and at what rate, so that commercial fertilizer supplementation becomes easier next spring.

#### 2. Consider alternative storage if available.

Some neighbours may have sold their livestock, but still have manure storage space that could be "rented".

#### 3. Injection of liquid manure is not a good option in wet soils.

Wet soils smear more

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# **Manure - Tackling the Frequently Asked Questions**

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easily, especially when combined with additional and concentrated liquids at each injection point. Surface application onto crop residue or cover crops, followed by tillage at the earliest opportunity, will cause the least amount of compaction damage in wet soils.

4. If manure must be applied to snow covered fields, consider the soil under the snow. If the soil is frozen under the snow cover, the risk of snow melt combined with rain leading to contaminated runoff is high. Where will the runoff move? The nutrients may not be where they were intended.
5. Spread on fields or parts of fields with the least slope. Ideally, start with fields where there is no access to surface water. Water flow patterns are obvious in most fields during continued wet periods. Take note of those areas and avoid manure application where there is evidence of ponded water or "streams" through the field.
6. Keep your distance from watercourses. Normally under good spreading conditions, the recommended distance between liquid application and the watercourse is 13 meters (40 ft). Under winter contingency applications, the separation distance should be increased. In the nutrient management regulations, the minimum setback for liquid manure application increases to 100 meters (330 ft) with winter application where slope to the watercourse is greater than 3%.
7. Surface inlets or hickenbottoms act as a direct conduit to surface water. In a wet year, the risk of water contaminated with manure moving through surface inlets increases.
8. Keep application rates as low as possible – 5,600 imperial gallons (6,800 US gal) is the equivalent to 1/4 inch (6 mm) evenly applied across spread width. Consider the soil conditions at the time of application. If a quarter inch of rain fell in one minute, would it runoff or move?
9. For all manure application options, monitoring is essential to ensure that contamination of water sources does not occur. Just in case, the Spills Action Centre number is 1-800-268-6060. Murphy's Law - if the farm's contingency plan has been reviewed in advance, it probably won't be needed.

## **When should manure be incorporated?**

Manure should be incorporated as quickly

as possible after application. The key to incorporation is having the nutrients distributed uniformly though the seedbed. Injection is considered a form of incorporation. Injection is advantageous for reducing odour and decreasing loss from volatilization, especially with liquids.

## **How much fertilizer value will manure have?**

Fertilizer value varies with manure type and livestock type. Feed rations, storage and addition of bedding or waste water will influence the nutrients applied. It is recommended that manure is sampled for nutrient analysis at the time of application.

## **How do I take a manure sample?**

A manure sample is easiest to obtain at the time of application. The best method to know what nutrients were applied to the field is to take samples from various loads during application and then mix the subsamples to obtain one representative sample. If there is variation in the storage (not agitated or a solid manure pile), taking a sample for each field where manure is applied will give more accurate results and reveal how much variation there is in the storage.

## **How do I interpret an analysis?**

A manure analysis should include dry matter, total nitrogen, ammonium nitrogen ( $\text{NH}_4\text{-N}$ ), phosphorus, and potassium. For solid manure, the carbon:nitrogen ratio (C:N ratio) will also be useful, especially where bedding is used.

### **• Nitrogen**

Total N –  $\text{NH}_4\text{-N}$  = Organic N

Organic N = slow release (20-30% available in year of application)

$\text{NH}_4\text{-N}$  = quickly available (decreases as it remains un-incorporated)

### **• Phosphorus**

liquid:  $(\% \text{ P} \times 1.84) \times 100 = \text{lbs}/1000 \text{ gal}$  of  $\text{P}_2\text{O}_5$  added to soil

solid:  $(\% \text{ P} \times 1.84) \times 20 = \text{lbs}/\text{ton}$  of  $\text{P}_2\text{O}_5$  added to soil.

Where soil fertility levels are very low, only a portion of the phosphorus will be available in the year of application.

### **• Potash**

liquid:  $(\% \text{ K} \times 1.08) \times 100 = \text{lbs}/1000 \text{ gal}$  of  $\text{K}_2\text{O}$  added to soil

solid:  $(\% \text{ K} \times 1.08) \times 20 = \text{lbs}/\text{ton}$  of  $\text{K}_2\text{O}$  added to soil.

# **Don't Ignore Phosphorus Needs of Canola**

*by Brian Hall, Canola & Edible Bean Specialist, OMAFRA*

Although nitrogen and sulfur receive considerable attention in canola production, phosphorus (P) rate and placement are important factors in yield management.

The current OMAFRA phosphorus recommendations for canola are the same as oats. ([www.omafra.gov.on.ca/english/crops/pub811/6fertility.htm#phosphate](http://www.omafra.gov.on.ca/english/crops/pub811/6fertility.htm#phosphate)) At soil tests over 15 ppm of P (sodium bicarbonate test), there is a low probability of a yield response to applied phosphorus. Canola is more efficient at extracting soil P than cereals, so cereal crops are more likely to respond to higher P application rates. The availability of phosphate is very small compared to the entire pool of phosphorus in the soil. The root system of canola secretes organic acids that help increase the availability of phosphorus. Canola also produces longer root hairs than many plants, which increases the volume of soil from which it can absorb P. Canola uptakes phosphorus from the soil rapidly in the early growth stages and continues to remove phosphorus for up to about 8 weeks. Over the cropping cycle, applying sufficient P to meet crop removal may be desirable to prevent long term depletion. A canola crop yielding 1 tonne/acre will remove about 30 lb/ac (34 kg/ha) of P ( $\text{P}_2\text{O}_5$ ), equivalent to 0.8 lb/bushel. Check soil phosphorus levels every 2 - 4 years to see that soil tests are in the desired range.

Research trials have shown that the largest response to starter fertilizer generally occurs on soils that test low to medium in phosphorus.

## **Phosphorus Banded Near the Seed Most Effective**

Phosphorus moves very little in the soil and is easily tied up. Placement where roots can quickly access it is critical, especially in cold soils. At 5°C, phosphorus is five times less available than at 25°C. Canola requires phosphorus earlier than wheat. The small seed size of canola limits the amount of P reserves for early crop growth. Phosphorus reserves in canola seed will support seedling development

*Continued on page 8*

# ***Don't Ignore Phosphorus Needs of Canola***

*Continued from page 7*

for about one week. In wheat, reserves are sufficient to support seedlings for about 2 weeks.

Western Canada canola phosphorus research indicates maximum yield return from the first 17 - 22 kg/ha (15-20 lb/ ac) of seed-placed phosphate ( $P_2O_5$ ) or 33 - 44 kg/ha (30- 40 lb/ac) if side-banded, even on high testing soils. On low testing soils, research has shown a good response obtained with application rates of 20 - 34 kg/ha (18 - 30 lb/ ac). The low mobility of P limits how much you can reduce P application rates because of the distance between fertilizer granules and the seed. Banding 11-52-0 (MAP) fertilizer at rate of 38 lb/ac MAP (20 lb/ac  $P_2O_5$ ) places fertilizer granules about 2 inches (5 cm) apart, which is sufficient for seedlings to reach easily. When P is broadcast it generally

takes 2 - 4 times the rate of banded P to obtain the same yield increase.

## ***Seed Safety When Applying N, K and S***

Canola seedlings are much more sensitive to seed-placed fertilizer than cereals or corn. Monoammonium phosphate (MAP 11-52-0) has a low salt index and does not produce ammonia, so it has a low relative toxicity to seedlings. Field variability including eroded knolls, low organic matter soils, dry soils, or cloddy furrows will increase risk of injury. In Ontario, the recommendation for canola is for a maximum rate of 20 kg/ha (18 lb/ac) of phosphate fertilizer (35 lb/ac MAP) drilled with the seed. Nitrogen, except as monoammonium phosphate (MAP), and potash should

not be applied with the seed. Generally, it is recommended that the rate of nitrogen not exceed 11 kg/ha (10 lb/ac). Sulphur can also be toxic when seed placed, especially ammonium sulphate.

Microessentials S-15, a Mosaic Company product, is a blend of MAP, ammonium sulphate and elemental sulphate (13-33-0 15 S). Each fertilizer granule contains all 3 elements (N,P,S), with 50% of the S as elemental S that is not available during the seeding year. In 2010 western Canada trials, S-15 performed well, with good seed safety and excellent P availability. Current research shows little differences in performance between MAP and other 'newer' formulations of P, such as liquid versus dry, orthophosphates, polymer coatings, and Avail.

# **Biomass Getting Some Face Time**

*by Ian McDonald, Applied Research Co-ordinator, OMAFRA*

The first Ontario Regional Biomass Tour was held Sept. 26th to October 3rd. This was an opportunity for people interested in all facets of the emerging biomass industry to get a feel for the level and scope of activities that are ongoing across Ontario. The Tour was organized by the Ontario Soil & Crop Improvement Association (OSCIA) and the Ontario Ministry of Agriculture, Food & Rural Affairs.

*Components of the biomass value-chain included in the tour were:*

- production fields of switchgrass, big bluestem, Miscanthus, sweet sorghum, pearl millet, hybrid poplar and willow, and crop residues,
- discussions with researchers who were exploring establishment, and other agronomics for successful biomass production,
- processing facilities capable of processing biomass,
- development of product precursors from crop biomass and recyclable ag plastics, and
- end use products of biomass, including heat, materials, and consumer products. Twenty-two stops from Leamington to Belleville were toured. People could attend as many or as few of the stops as fit their schedules.

Participants and hosts surveyed all expressed interest in developing this into an annual event. Organizers and participants were pleased with the event and look forward to welcoming a larger number of participants to the tour next fall.

It was rewarding to see the hard work of these innovative farm-

ers coming to bear on developing markets for this new class of crops. The interest from business and government in biomass research and development was also encouraging. While it is often extremely difficult to develop new industries, and despite having a long way still to go, those involved are optimistic that we are working in the right direction.

The farmers involved and those scratching at the surface are seeing that these crops have potential for commercial production in Ontario. The end use industries are seeing opportunities that these crops provide. With the release of commercial product now available at chains such as Home Hardware and Canadian Tire, we are beyond "proof of concept" and ready to take the next steps.

Work continues at all levels on developing the agricultural biomass industry. The "Ontario Field-Scale Agricultural Biomass Research Project" of OSCIA is establishing and monitoring 900 acres of biomass crops with innovative farmers from across Ontario. Research is also taking place at Kemptville, Elora, Simcoe, Delhi, Ridgetown, Leamington and other locations. The Ontario Federation of Agriculture, through an Agricultural Adaptation Council funded project to commercialize biomass in Ontario, is exploring the logistical, feasibility and market opportunities that need to be developed.

# ESN® Controlled Release Fertilizer On Spring Wheat

by Scott Banks, Emerging Crop Specialist, Kemptville OMAFRA

ESN® is a fairly new product that uses a micro-thin polymer coating to encapsulate a nitrogen (N) granule. This coating is to protect the N from loss to the environment and releases it based on temperature and soil moisture, theoretically a bit later in the plant's growth when the crop needs it. To evaluate the effectiveness of this product, the Ottawa-Rideau Regional Soil & Crop Improvement Association examined the yield, quality response, and economic benefits of ESN® Controlled Release Fertilizer, also known as "Smart Nitrogen" use in spring wheat production.

## 2011 Results

Results from two on-farm sites in eastern Ontario in 2011 showed no advantage in grain yield or protein content with the use of ESN® (Table 1). There was no significant difference in residual soil nitrogen levels, indicating there was not an environmental benefit. There was also no impact on the percentage of Fusarium Damage Kernels (FDK%) or in the grain toxin levels as measured by VOM.

Differences between ESN® treatment <sup>2</sup> compared to urea		
Yield / Quality Trait	1/2 Nitrogen Rate	Full Nitrogen Rate
Yield @14.5% (bu/ ac)	-0.6	-1.1
Protein %	-0.3	-0.6
Residual Soil Nitrogen (Post-Harvest) kg/ha	-1.7	1.6
FDK %	0.0	-0.1
VOM (ppm)	0.0	0.0

<sup>1</sup> 2 sites located in eastern Ontario

<sup>2</sup> 50% ESN & 50% urea by unit of actual N

## A Look At All 3 Years

This three year project was done in 2009, 2010 and 2011. There

was no increase in grain yield or protein in either of the 2009 or 2011 growing seasons. Residual soil N levels were similar between all treatments in each of the three years of the project, indicating no environmental benefit to the ESN® fertilizer.

In 2010, only one of the two sites had a positive yield response, with about an extra 4.5 bushels per acre using a full rate of ESN®-urea blend as compared to the straight urea. The ESN®-urea blend treatment also increased grain protein about 0.5%. However, this was above the maximum protein premium of 12.5% for hard red spring wheat, so there was no additional economic advantage in this situation.

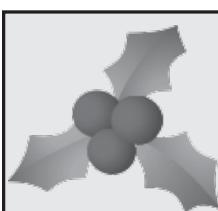
Why was there some response in 2010, but none in 2009 or 2011? Do certain weather and soil conditions increase the likelihood of seeing improved yield or quality? In 2010, May was a dry month receiving only about half of the normal rainfall, whereas in May of 2009 and 2011, rainfall was closer to the norm for the area. If we could predict when we will have a 'dry spring' this might enable us to use the product more strategically to increase the possibility of an economic benefit.

## Plot Set-Up

Two on-farm spring wheat plots were established each year. In 2009, 100% ESN® was compared to 100% urea. In 2010 and 2011, a 50% ESN® and 50% urea blend were applied and compared to 100% urea. All comparisons were at equivalent nitrogen rates to the straight urea treatments. All the nitrogen was applied at planting at two different rates in both years:

1. the grower's standard N rate, and
2. one-half the grower's standard rate.

The one-half grower standard rate treatment was used to determine if ESN® yielded more grain or higher protein in spring wheat under a lower available nitrogen situation. At harvest, plots were weighed and measured for moisture and test weights. Spring wheat samples were collected and the grain analyzed for protein, FDK% and Vomatoxin. A full project report will be included in the Crop Advances publication available at the Ontario Soil & Crop Improvement Association's Annual Meeting in February 2012.



*Season's Greetings and  
Happy New Year*

*Joyeux Noël et bonne  
heureuse année*



# Soil Test Your Hay Fields To Manage Phosphate & Potash Levels

by Joel Bagg, Forage Specialist, OMAFRA

Good fertility is essential to forage crop yields, persistence and profitability. Hay prices are trending upwards. With corn and soybean prices and land costs increasing rapidly, it is essential to increase the management of our hayfields. While there are many agronomic considerations to look at, phosphorus (P) and potassium (K) fertility management is often overlooked in forage production. P and K is fundamental to remaining competitive with grain crops in today's market.

## Crop Removal of P and K

Forage crops remove a lot of nutrients and therefore have high nutrient requirements. With an alfalfa-grass mixture, a typical amount of P and K removed per tonne of hay harvested is equivalent to 13.5 lbs (6.1 kg) of P<sub>2</sub>O<sub>5</sub> and 54 lbs (24.6 kg) of K<sub>2</sub>O. As an example, assuming a mixed stand with a modest yield of 3.2 tonnes per acre per year, hay will remove about 43 lbs (19.6 kg) of P<sub>2</sub>O<sub>5</sub> and 173 lbs

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Unlike nitrogen, forage crops cannot generate P or K out of thin air. Without replacing P and K with manure or commercial fertilizer, the soil tests will drop quickly. Assuming that it takes about 35 lbs/ac of P<sub>2</sub>O<sub>5</sub> and 20 lbs/ac of K<sub>2</sub>O to move the soil tests by 1 ppm on some soils, after only 4 years the P soil test could drop by 5 ppm and the K by 35 ppm. This is easily enough to significantly reduce forage yields if soil test levels drop below optimum levels. We also need to maintain soil nutrient levels for the next crops in

the rotation. At lower soil test levels, this "soil mining" is not acceptable. Yet it goes on in many hay fields every year.

There is a wide range of soil fertility levels found in hay fields across the province. Dairy farms that apply a lot of manure typically have high P and K levels. However, K deficiency has become more common in many crop fields. Hay fields that are infrequently (or never) rotated or receive manure or commercial fertilizer are typically very low in soil fertility and yield.

## Soil Testing

Soil testing is essential. Knowing how much P and K is in the soil to start with is critical. Take a representative soil sample, send it to an accredited lab and use the results to determine optimum fertilizer rates. Keep records. Monitor whether fertility is increasing, decreasing or staying in an optimum range over time. Soil samples should be taken at least every 3 years. The time and effort it takes to do the soil sampling seems to be an obstacle, but with the cost of fertilizer there is likely no greater potential return on the cost and extra effort. Compare your fertilizer bill with lab and mailing costs plus an incentive for the kids to do the sampling for you! Refer to OMAFRA Factsheet 06-031 "Soil Sampling & Analysis" [www.omafra.gov.on.ca/english/engineer/facts/06-031.htm](http://www.omafra.gov.on.ca/english/engineer/facts/06-031.htm).

## Soil Analysis Report Interpretation

When you get your report, check the sodium bicarbonate phosphorus (P) and ammonium acetate potassium (K) soil test levels (ppm). (Use only these tests, as other tests (Bray or Mehlich) cannot be interpreted using our calibration data.) How do the P and K soil test levels look?

Figures 1 and 2 show the yield response of alfalfa to various P and K soil test levels. The yield curve is quite steep when P gets much below 12 ppm and K below 120 ppm. A positive yield response from applying fertilizer will be seen when soil tests are below these levels. On the flip side, the yield curve at high soil fertility levels is flat. Don't expect any extra yield from applying fertilizer once the soil test have been built up to higher levels. In these cases, you can choose to apply fertilizer to replace the nutrients removed by the crop to prevent future nutrient deficiencies, but don't expect extra yield from that maintenance application.

Figure 1

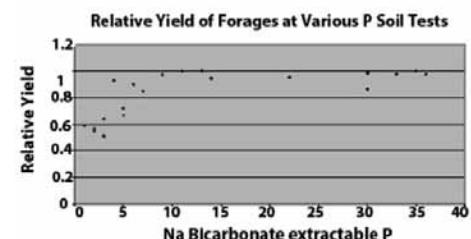
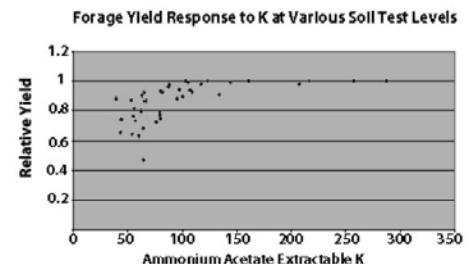


Figure 2



## P & K Recommendations For Established Stands

Tables 1 and 2 provide the OMAFRA P and K recommendations on established forage stands. If manure is applied, reduce the fertilizer application according to the amount of P and K in the manure. For P and K recommendations at seeding (banded or not, with or without a nurse crop), or information on nitrogen rates, pH, manure application and micronutrients (boron, sulfur), refer to the Forage Fertility section of OMAFRA Publication 811, Agronomy Guide. [www.omafra.gov.on.ca/english/crops/pub811/fertility.htm](http://www.omafra.gov.on.ca/english/crops/pub811/fertility.htm).

Table 1 – Phosphate Recommendations For Established Forage Stand (Based on OMAFRA Accredited Soil Tests)

Sodium Bicarbonate Phosphorus Soil Test (ppm)	Established Forage Stand	
	Rating 1	Phosphate (P <sub>2</sub> O <sub>5</sub> ) Required kg/ha
0 – 3	HR	180
4 – 5		120
6 – 7		90
8 – 9		60
10 – 12	MR	30
13 – 15		20
16 – 20	LR	0
21 – 25		0
26 – 60	RR	0
61 +	NR	0

<sup>1</sup> HR, MR, LR, RR & NR denote respectively  
Continued on page 11

## SOLAR LIGHTING

Free indoor "Solar Lighting" has come to the "Third World". Can we make it work for us on the farm?

All it takes is an empty 2 litre plastic pop bottle and some know-how!

Check out this internet item at:  
<http://youtu.be/SBWi3NtND68>

Great for chicken-coops!

## Soil Test Your Hay Fields To Manage Phosphate & Potash Levels

Continued from page 10

– high, medium, low, rare and no probabilities of profitable crop response to applied nutrient. Profitable response to applied nutrients occurs when the increase in crop value from increased yield is greater than the cost of the applied nutrient.

Table 2 – Potash Recommendations For Established Forage Stand (Based on OMAFRA-Accredited Soil Tests)

Ammonium Acetate Potassium Soil Test (ppm)	Established Forage Stand	
	Rating <sup>1</sup>	Potash (K <sub>2</sub> O) Required kg/ha
0 – 15	HR	480
16 – 30		400
31 – 45		320
46 – 60		270
61 – 80		200
81 – 100		130
101 – 120	MR	70
121 – 150		20
151 – 180	LR	0
181 – 250	RR	0
251 +	NR	0

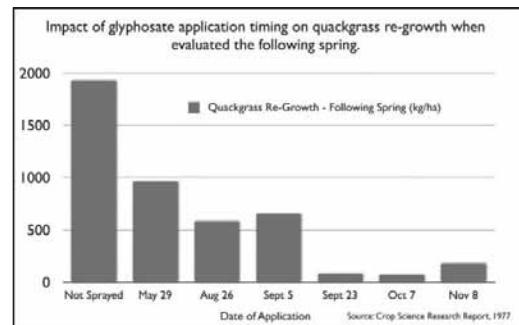
<sup>1</sup> HR, MR, LR, RR & NR denote respectively – high, medium, low, rare and no probabilities of profitable crop response to applied nutrient. Profitable response to applied nutrients occurs when the increase in crop value from increased yield is greater than the cost of the applied nutrient.

# Importance of Managing Perennial Weeds in the Fall: Quackgrass

by Mike Cowbrough, Weed Management Field Crops Program Lead

We in the weed science business are pretty good at telling producer's to manage perennial weeds in the fall because they are controlled much better. Although its nice to believe without question, quantitative proof is always better. I recently came across a University of Guelph research report from 1977 that nicely demonstrates the reduction in quackgrass re-growth the following spring after a fall glyphosate application.

A spring application of glyphosate will reduce quackgrass re-growth the next spring (compared to doing nothing), waiting until the fall to apply the glyphosate resulted in an additional 80% reduction in re-growth.



## The Canadian Corn Refuge Hybrid Selector

A collaborative project of the Ontario Corn Committee, the Canadian Corn Pest Coalition and the Canadian Seed Trade Association.

The Refuge Selector is meant for reference only. Please consult a reliable seed sales agent or field agronomist when deciding which refuge hybrid to plant.

Please select a company and hybrid name OR the trade name of the product you would like to look up:

Specific Hybrid

Company: DEKALB  
Hybrid: DKC50-44

OR

Trait Package/Trade Name

Agrisure 3000GT

Ontario Corn Heat Units: unknown

Field Size: 88  Acres  Hectares

List only glyphosate tolerant refuge hybrids? Yes

Search

[More Information on Insect Resistance Management](#)

## Additional Resources

[GoCorn.net](#)

[List of Corn Hybrids Commercially Available in Canada](#) (Provided by the Canadian Seed Trade Association.)

[List of Seed Corn Companies](#)



## BULLETIN GRANDES CULTURES

MAAARO – des spécialistes en grandes cultures



### *En français!*

*L'information du Ministère de l'agriculture et de l'alimentation de l'Ontario est disponible sur le site web du MAAARO en français au [www.omafra.gov.on.ca](http://www.omafra.gov.on.ca)*

### **Préparé par:**

Mike Cowbrough, chef du programme de lutte contre les mauvaises herbes, grandes cultures

Hugh Martin, chef de programme, production de cultures biologiques

Horst Bohner, chef de programme, soya

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Albert Tenuta, pathologiste, chargé de programme - grande cultures

Keith Reid, spécialiste en fertilité des sols

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Brian Hall, spécialiste des récoltes de remplacement

Peter Johnson, spécialiste des céréales

Scott Banks, spécialiste des cultures émergentes

Gilles Quesnel, spécialiste de la LIEG sur les grandes cultures

Christine Brown, responsable du programme de gestion des éléments nutritifs

Adam Hayes, spécialiste de la gestion des sols - grandes cultures

Greg Stewart, spécialiste du maïs

Tracey Baute, entomologiste, chargée de programme - grandes cultures

# Évaluation des recommandations de phosphore pour le maïs en Ontario

par Ken Janovicek, Université de Guelph, et Greg Stewart, spécialiste du maïs, MAAARO

### **Contexte**

Les recommandations et les stratégies ontariennes de fertilisation sur le phosphore (P) ont été évaluées dans le cadre d'essais portant sur l'effet du phosphore sur le rendement du maïs-grain et d'analyses subséquentes qui ont été effectuées. L'étude a été financée par le Fonds pour le nettoyage du lac Simcoe d'Environnement Canada et par le ministère de l'Agriculture, de l'Alimentation et des Affaires rurales de l'Ontario.

Les résultats de 113 sites d'essais ontariens pour l'évaluation de l'effet du phosphore sur le rendement du maïs, de 1967 à 2010, ont été enregistrés dans la base de données. Parmi les 113 essais, 71 ont fait l'objet de doses multiples de phosphore et on a calculé la dose de phosphore la plus économique. Les autres essais ont permis d'évaluer des dosages uniques, des produits contenant plusieurs engrains ou différentes méthodes d'application; ces essais ont tous été comparés à des parcelles témoins n'ayant pas reçu d'engrais phosphaté.

### **Répercussions économiques**

L'analyse laisse croire que les rendements des cultures de maïs et les possibilités de revenus associées ne sont pas limités actuellement par la disponibilité du phosphore lorsque les doses de P recommandées par le MAAARO sont respectées. Les recommandations ontariennes sur les doses de P sont souvent plus élevées que les besoins de la production saisonnière de maïs-grain, surtout lorsque les analyses de sol donnent des résultats de l'ordre de 6 à 12 ppm. (Note : toutes les teneurs en P du sol ont été évaluées au bicarbonate de sodium dans le cadre d'analyses de sol reconnues par le MAAARO).

Les différences dans la dose de phosphore la plus économique, basées sur les fluctuations dans le rapport entre le prix du maïs et celui du phosphore, ont été relativement peu importantes. Par exemple, si le prix du maïs doublait en passant de 4,50 \$ à 9,00 \$ le boisseau pour un prix donné d'engrais phosphaté, la recommandation de la dose optimale de P augmenterait d'environ 10 kg/ha (9 lb/ac) de  $P_2O_5$ .

On obtiendra un effet beaucoup plus important sur les revenus nets en réglant les doses de phosphore tenant compte des résultats d'analyses de sol plutôt qu'en tentant de modifier légèrement le dosage en fonction des fluctuations des prix du maïs et des coûts des engrains phosphatés.

### **Méthode d'épandage et doses de P**

Des épandages de  $P_2O_5$  au moment du semis à des doses situées entre 12 et 20 kg/ha (11-18 lb/acre) font augmenter les profits globaux dans environ 50 % des cas. La probabilité qu'il y ait une incidence économique sur le rendement liée à l'utilisation d'un engrais de démarrage au moment du semis est relativement peu associée aux teneurs en P dans le sol. Ainsi, les chances que l'apport d'engrais phosphaté au moment du semis soit rentable sont quasi égales si la teneur du sol en P est de 25 ppm ou de 10 ppm.

L'application d'engrais phosphaté en bandes de 5 X 5 cm (2 X 2 po), soit 5 cm sous les semences et 5 cm à côté de celles-ci, a donné des hausses de rendement et de rentabilité beaucoup plus importantes que l'épandage en pleine surface. Il est rare que l'on compare directement les

*Continued on page 13*

*Joyeux Noël  
et bonne  
heureuse année*

## *Évaluation des recommandations de phosphore pour le maïs en Ontario*

*Continued from page 12*

applications en bande et en pleine surface dans le cadre d'un même essai. Toutefois, les parcelles où on a appliqué de l'engrais phosphaté de démarrage en bandes de 5 X 5 cm ont habituellement présenté des hausses de rendement supérieures à celles des parcelles où le P avait été épandu en pleine surface, lorsque les teneurs en P du sol se situaient entre 8 et 30 ppm. Lorsque la teneur du sol en P était supérieure à 15 ppm :

- Il y avait peu d'avantage économique à ajouter de l'engrais phosphaté à la culture de maïs de la saison en cours à des doses supérieures à 20 kg/ha (18 lb/ac) de  $P_2O_5$ .

• Le phosphore devrait être uniquement appliquée en bandes ou avec la semence afin de maximiser l'efficacité de l'engrais phosphaté assimilé par le maïs. Un nombre important de producteurs épandent du P en pleine surface à des taux de prélevement par la culture visant à maintenir la teneur en P dans le sol (soit 27/ha kg (60 lb/acre) de  $P_2O_5$  pour un rendement en maïs de 150 boisseaux/acre). Les données laissent croire que cette pratique comporte très peu d'avantages économiques, surtout lorsque la teneur du sol en P est supérieure à 15 ppm.

### *Rappel sur le potassium (K)*

La base de données a également intégré certaines analyses pour d'autres types d'engrais de démarrage. Ces analyses ont surtout permis de conclure que lorsque les teneurs du sol en K sont inférieures à 90 ppm, on peut s'attendre à des hausses de rendement plus uniformes et plus importantes dans le maïs lorsque des engrains de démarrage contenant aussi du K sont appliqués avec la semence ou en bandes de 5 X 5 cm.

# **Comment planifier efficacement les semis de cultures fourragères sur sol gelé**

*par Gilles Quesnel, chargé de programme, lutte intégrée contre les ennemis des grandes cultures, MAAARO*

La technique de « semis sur sol gelé » consiste à semer à la volée des semences de plantes fourragères sur du sol gelé à la fin de l'hiver ou au début du printemps. Le semis sur sol gelé peut être un moyen efficace d'améliorer la qualité et le rendement des fourrages provenant de pâturages ou de prairies de fauche clairsemées. Cette méthode facilite l'établissement des cultures fourragères dans une prairie non travaillée à un coût réduit et permet aussi de diminuer la période où il est impossible de faire brouter les animaux au printemps.

La clé pour réussir l'établissement de cultures fourragères par semis sur sol gelé est de commencer à planifier la culture l'automne précédent. Pour réussir les semis sur sol gelé, il faut retirer à la fin de l'automne les parties-aériennes des plantes dans la parcelle visée pour les raisons suivantes :

1. exposer le sol nu et améliorer le contact entre le sol et la semence au moment des semis;
2. réduire dès le début du printemps la vigueur et la concurrence des plantes qui se trouvent déjà dans la parcelle.

### *Choix de l'emplacement*

Pour germer, les semences doivent être en contact étroit avec le sol. Pour le semis sur sol gelé, les meilleurs emplacements sont les peuplements de graminées dégarnis où une partie du sol est exposée. Pour favoriser l'établissement des jeunes pousses, on peut amincir le peuplement, l'automne précédent les semis, par surpâture ou par une fauche à 5 cm (2 po) (voir figure 1). Cette technique affaiblit les plantes existantes et facilite l'action du gel et du dégel. Le contact entre le sol et la semence est ainsi amélioré, ce qui affaiblit la plante en place et réduit la concurrence en début de saison. Le semis sur sol gelé dans les champs très fournis donne de moins bons résultats.

### *Moment des semis*

Dans la plus grande partie de l'Ontario, le meilleur moment pour effectuer les semis sur sol gelé est de la mi-mars au début d'avril, lorsque la neige est partiellement ou totalement fondu. Idéalement, le sol devrait geler et dégeler au moins deux ou trois fois après les semis en pleine surface, ce qui facilite l'incorporation des semences dans le sol. Éviter de semer sur la neige là où une fonte rapide pourrait provoquer un ruissellement qui emportera les semences.



*Figure 1. Plantes fauchées à 5 cm laissant le sol dégagé.*

### *Matériel*

Un semoir à grains est idéal pour assurer un placement et une distribution uniformes des semences, mais il n'est pas vraiment utile lorsque le sol est gelé ou enneigé. Les semis sur sol gelé se font donc le plus souvent au moyen d'un épandeur rotatif monté sur un véhicule tout-terrain, une motoneige ou un tracteur. Pour les champs de faible étendue ou très accidentés, il peut être préférable d'utiliser un distributeur manuel.

### *Choix de l'espèce*

Le trèfle rouge est l'espèce la plus facile à semer sur sol gelé (voir la figure 2). Ses graines sont denses, ce qui améliore le contact avec le sol. De plus, elles germent à des températures basses et les

*Continued on page 14*

# **Comment planifier efficacement les semis de cultures fourragères sur sol gelé**

*Continued from page 13*

jeunes plants sont vigoureux, de sorte qu'ils commencent à pousser tôt au printemps. Le trèfle rouge ne vit toutefois pas longtemps, ce qui signifie que les semis de cette espèce peuvent devoir être refaits tous les deux ou trois ans.

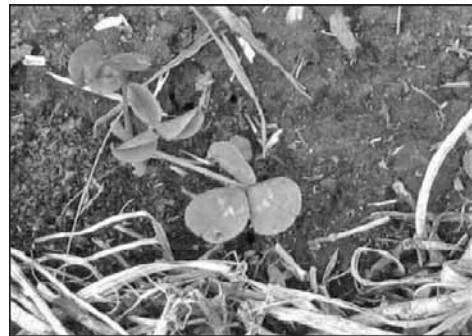


Figure 2. Trèfle rouge semé sur sol gelé, au stade de la 3<sup>e</sup> feuille trifoliée.

Les semis de lotier corniculé et de trèfle blanc sur sol gelé ont connu un succès variable. L'établissement du lotier corniculé est plus difficile et plus lent que celui du trèfle rouge, mais le premier a l'avantage, dans les pâturages, de ne pas causer de météorisme. Une fois établi, il tolère bien une large gamme de conditions de croissance et peut se ressembler de lui-même; il persiste donc beaucoup plus longtemps que le trèfle rouge.

La luzerne ne convient pas au semis sur sol gelé, en raison du phénomène

d'autotoxicité qui empêche les jeunes pousses de luzerne de se développer en présence de plants de luzerne adultes.

Les semis de graminées sur sol gelé sont beaucoup plus difficiles à réussir que ceux des légumineuses. Cependant, des recherches menées par Dan Undersander, à l'Université du Wisconsin, ont permis de montrer que de dactyle pelotonné et l'ivraie multiflore (annuelle) s'établissaient mieux que la phléole des prés et l'alpiste roseau. L'établissement du brome inerme a donné des résultats intermédiaires, mais cette plante est plus résistante à l'hiver que le dactyle pelotonné et l'ivraie multiflore.

## *Densité des semis sur sol gelé*

Espèces	Densité de semis lb/acre 1
Trèfle rouge	3 – 7
Trèfle blanc	2 – 3
Lotier corniculé	3 – 6
Dactyle pelotonné	3 – 4
Ivraie multiflore	4 – 8
Brome	6 – 12

- Choisir la densité la plus élevée lorsqu'une grande partie du sol est dégagée.
- Choisir la plus faible densité de semis lorsqu'on utilise un mélange de semences.

## *Fertilisation*

Bien que les engrais phosphatés profitent aux jeunes plants, la fertilisation d'un champ semé sur sol gelé comporte le désavantage de favoriser la croissance des plants existants. Il est donc préférable d'épandre du phosphore et de la potasse à la fin de l'été afin de stimuler la croissance et la résistance à l'hiver des nouveaux plants de légumineuses. L'année des semis, si un peuplement adéquat est déjà établi (avec 40 % de légumineuses ou plus), éviter d'épandre un engrais azoté qui ferait augmenter la compétition exercée par les graminées. Dans les peuplements ayant une faible proportion de légumineuses, l'ajout d'azote stimulera le rendement des graminées. Si l'on doit appliquer de l'azote pour accroître la production, on doit se limiter à moins de 50 kg/ha (44 lb/acre) d'azote réel pendant la première saison.

## *Gestion des récoltes*

Après l'établissement des nouveaux plants, le pâturage régulier ou la récolte de foin auront pour effet de réduire la compétition exercée par les graminées existantes et permettront à la lumière de pénétrer dans le couvert végétal. L'année de l'établissement, éviter le surpâturage en laissant au moins 5 à 8 cm (2 à 3 po) de parties aériennes.

# **Lancement d'un sélecteur d'hybrides refuges en ligne**

*par Cara McCreary, chargée de programme, entomologie des grandes cultures,  
MAAARO et Jocelyn Smith, Campus Ridgetown, Université de Guelph*

Le sélecteur canadien d'hybrides de maïs servant de refuge (Corn Refuge Hybrid Selector) est un outil diffusé en ligne qui fournit toutes les informations requises pour suivre l'évolution de la gestion de la résistance des insectes en ce qui a trait à tous les hybrides de maïs Bt actuellement offerts en Ontario. Ce sélecteur de refuge a été mis au point grâce à la collaboration de la Coalition canadienne contre les ravageurs du maïs, le Comité ontarien du maïs et l'Association canadienne du commerce des semences.

Il suffit de sélectionner l'hybride Bt ou le caractère génétique

de la variété semée et les dimensions du champ. Le sélecteur de refuge fournit une liste des hybrides refuges admissibles, la dimension du refuge, les choix de traitements et de méthodes d'application ainsi que des données sur la tolérance aux herbicides. On peut consulter le sélecteur d'hybrides refuges sur le site Web de la Coalition canadienne contre les ravageurs du maïs à <http://www.cornpest.ca> ou <http://www.refugeselector.ca>. C'est un excellent outil qui facilitera la préparation des commandes de semences pour 2012.

# L'augmentation des rendements, possible?

par Denis Lévesque, technologue, Directeur service technique sols et fertilisants, Synagri

Toute activité économique se doit d'être gérée adéquatement pour survivre, et surtout progresser. Entre autres, les dépenses non-productives doivent être éliminées et les investissements en but d'augmenter la productivité doivent être planifiés et exécutés. L'agriculture qui est avant tout une activité économique n'y échappe pas. La plupart des agriculteurs s'en aperçoivent lorsqu'ils ont à rendre des comptes à leurs créanciers.

Là où l'activité agricole diffère de la majorité des autres activités économiques, c'est dans sa dépendance à la nature qui lui confère un caractère d'évolution lente à long terme et en partie imprévisible à court terme. Pour fabriquer un biscuit, le pâtissier à besoin d'une bonne recette et il n'a qu'à la suivre. S'il rate une fournée, il la jette aux poubelles et il recommence immédiatement. Pour fabriquer une tonne de céréales, il y a des dizaines de recettes qui doivent être adaptées aux diverses conditions de sol et de climat. Et malgré un suivi scrupuleux de la recette supposée être la meilleure pour une situation donnée, la température sera toujours un atout majeur dans la réussite ou l'échec de l'application de la recette. De plus, il n'y a aucune possibilité de reprise en cultures, sauf que d'attendre l'année suivante. Le producteur doit mieux comprendre et contrôler les mécanismes de production de ses élevages et de ses cultures afin de bien comprendre et appliquer les différentes recettes qui conviennent le mieux à ses situations. Il y aura toujours le climat, l'État, etc.. Mais le producteur agricole d'affaire, qui saura prendre des décisions éclairées tant au niveau de sa gestion financière, de sa mise en marché que de sa capacité de production, sera celui qui vivra de l'agriculture.

### Où s'en va l'agriculture à l'ère des hautes technologies?

L'agriculture est grandement influencée par des avancées technologiques de toutes sortes : traits génétiques, équipements sophistiqués et contrôlés électroniquement, etc.. Plusieurs intervenants, dont des producteurs, pensent que ces technologies sont garantes de l'avenir de l'agriculture. En effet, la nouvelle génétique ne promet-elle des augmentations de rendements substantielles pour les dix prochaines

années ? Les machineries ne permettent-elles pas des interventions d'une telle précision (taux de semis, d'applications de fertilisants et de pesticides) qu'elles permettent des économies importantes ainsi qu'une augmentation des rendements? Les techniques de productions améliorées (travail minimum du sol, travail du sol en bandes profondes, régie intensive, fertilisation en bande, etc.) ne favorisent-elles pas une meilleure productivité ?

La réponse est oui et non. Oui, si tous les facteurs de production sont optimums et non, si la base agronomique n'est pas là. Les nouvelles technologies en productions végétales peuvent être comparées à un tracteur équipé d'un moteur surpuissant dont la consommation en carburant et la puissance disponible sont contrôlées par une panoplie de systèmes électroniques sophistiqués. En théorie, ce tracteur sera nettement plus efficace... à condition qu'il y ait de l'air dans les pneus. Des facteurs « perturbateurs » autres que la température sont souvent responsables d'un dégonflement des pneus ou d'un maintien d'une pression inadéquate qui ne permet pas de profiter au maximum des avancées technologiques. En production végétale, les pneus sont les sols.

### L'appauvrissement des sols : un constat désolant

L'International Plant Nutrition Institute (IPNI) procède à tous les cinq ans à une étude des niveaux de richesse des sols de tous les états et provinces en Amérique du Nord. La dernière étude date de 2010 avec les résultats des analyses de sols de 2009. Elle démontre que pour le phosphore, 31% des sols ontariens et 56% des sols québécois échantillonés sont sous le niveau critique. Le niveau critique est défini comme étant la recommandation zéro dans une approche de suffisance utilisée par le MAAARO et le MAPAQ. Plus un sol est sous le niveau critique, plus la réponse à la fertilisation augmente, mais le potentiel de rendement diminue. Pour les deux provinces, la proportion de sols sous le niveau critique augmente à chacune des études depuis 2001. De plus, pour les deux provinces, les apports totaux de phosphore provenant des engrains organiques et minéraux sont pour la première fois inférieurs aux exportations totales

par les cultures. Nous sommes résolument dans un processus d'appauvrissement des sols. La situation pour le potassium est nettement plus dramatique. En Ontario, 49% des sols sont sous le niveau critique (41% en 2001 et en 2005) et c'est 60% au Québec (47% en 2001 et 54% en 2005). Depuis longtemps les exportations par les cultures sont supérieures aux apports totaux provenant des engrains organiques et minéraux, particulièrement au Québec.

Ces données sont pour tous les sols échantillonnes en Ontario et au Québec. Qu'en est-il pour la région? L'analyse des résultats des échantillons de la région démontre que les valeurs sont nettement inférieures aux moyennes provinciales. Les pneus du tracteur ne sont pas à plat, mais pas loin. Plus un sol est pauvre, plus il exige une fertilisation élevée pour atteindre un rendement acceptable. C'est exactement le principe des grilles de fertilisation du MAAARO et du MAPAQ. Par contre, plus un sol est pauvre plus le rendement potentiel est faible. Donc, en sol pauvre, il faut fertiliser plus pour produire moins qu'en sol riche. En sol, pauvre, aucun programme de fertilisation ne peut économiquement permettre d'atteindre le même rendement qu'en sol riche, même avec les meilleures technologies. L'enrichissement des sols doit être fait par des apports venant de l'extérieur de la ferme de fumiers, lisiers, boues et cendres normées bien caractérisées et agronomiquement acceptables (les terres agricoles ne sont pas le dépotoir de tous les résidus municipaux ou industriels) et d'engrais minéraux au besoin.

### Revenir à une vision globale de la santé des sols, pour atteindre des performances supérieures

#### Le calcul des exportations réelles

Un bon programme de fertilisation d'entretien des cultures doit tenir compte des prélèvements et des exportations des cultures, selon le potentiel de rendement réel de chaque champ et la capacité du sol de fournir des éléments nutritifs. Par exemple, les besoins (prélèvements) et les exportations (par la récolte) pour un rendement de 1.25 tonnes/acre d'orge sont bien différents de ceux d'un rendement

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# L'augmentation des rendements, possible?

*Continued from page 15*

de 2 tonnes/acre. En sol pauvre ayant un potentiel de rendement faible, appliquer plus de fertilisants organiques ou minéraux n'aura que peu d'influence à court terme sur l'augmentation du potentiel de rendement. Par contre, si les quantités sont suffisantes pour permettre l'augmentation de la richesse visible sur les analyses de sol, à moyen terme le potentiel de rendement augmentera de façon permanente, en autant qu'on maintienne la richesse du sol par des apports suffisants.

### *L'indispensable équilibre du pH du sol*

Trop de sols manquent de chaux. Un pH adéquat est obligatoire pour l'obtention de rendements et de qualité élevés, autant pour les céréales, les fourrages et le canola. Un pH faible signifie une fixation plus grande du phosphore, une désaturation en potassium, magnésium et calcium, une matière organique (réserve de l'azote, du soufre et du phosphore du sol) moins efficace, des probabilités de compaction du sol plus grande. Il faut faire une distinction entre le pH dit « critique » et le pH optimal. Le pH « critique » est celui sous lequel une baisse de rendement est probable. Il est variable selon l'espèce. Il est entre 5.6 et 5.8 pour les graminées et

entre 6.0 et 6.2 pour les légumineuses. Le pH optimal dépend beaucoup plus des caractéristiques du sol que de la culture. Plus le pH est bas, moins est grande la capacité du sol à fournir aux plantes les éléments nutritifs nécessaires. À un même pH, les sables libèrent plus facilement les éléments nutritifs que les terres argileuses bien que leurs réserves soient plus petites. Le pH optimal est ainsi entre 6.0 en sols légers sablonneux et 7.0 en sols lourds argileux. Des pH inférieurs indiquent des sols plus pauvres alors que des pH supérieurs causeront probablement des déséquilibres potentiellement nocifs pour la culture, particulièrement entre le potassium et le magnésium.

### *Méfiez-vous de la compaction!*

Au Témiscamingue ontarien et québécois de même qu'en Abitibi, une grande partie des sols ont des contenus en limon et en argile très élevés. Ces textures de sol ont naturellement tendance à être dense et compacte, particulièrement entre 12 et 18 pouces, ralentissant l'écoulement de l'eau en profondeur au printemps, même sur sols drainés souterrainement, limitant ainsi le développement des racines en profondeur. Ces racines profondes sont essentielles pour absorber suffisamment d'eau en été et mieux combattre

l'échaudage des céréales et le coulage des fleurs de canola. L'utilisation d'une sous-soleuse est nécessaire lorsque le sous-sol (plus de 10 pouces) laisse difficilement pénétrer l'eau et les racines. Aucune plante ne peut faire le travail adéquatement lorsqu'une couche indurée limite le passage de l'eau. Par contre, l'utilisation dans de mauvaises conditions d'une sous-soleuse est une opération très dangereuse qui détruira encore plus le sous-sol. Le bout de la dent de la sous-soleuse doit travailler dans un sol relativement sec pour le faire éclater dans tout le profil travaillé par la dent. En sol trop humide, le sol plutôt que de se soulever et éclater, il se tassera en lissant pour devenir encore plus compact.

Il est impensable de vouloir obtenir des rendements supérieurs économiques si les sols ne sont pas en conditions optimales pour la physique (compaction, drainage), la biologie (matière organique active) et la chimie (pH, niveaux de richesses de tous les éléments y compris les éléments mineurs). Le contrôle des mauvaises herbes et des insectes doivent également être bien maîtrisés. Améliorer un sol est un travail de longue haleine et dispendieux, mais c'est un investissement. Les sols non productifs ne peuvent être remplacés, comme une vache. Ils doivent être améliorés, et surtout on doit arrêter de les appauvrir!

## Une dose de coopération pour soulager les maux des agriculteurs Partie 2 : la clientèle

*Par Christian Howald, Conseil de la coopération de l'Ontario*

INCLUDEPICTURE "http://www.geo.fr/var/geo/storage/images/media/images/rubrique-environnement/conseils-et-astuces/alimentation/les-cooperatives-et-paniers-bio-les-amap/238773-1-fre-FR/les-cooperatives-et-paniers-bio-les-amap\_940x705.jpg" \\* MERGEFORMATINet Voici le second article d'une série de six qui traitent des obstacles rencontrés par les producteurs agricoles de la région de Nipissing-Sudbury. Il est le résultat d'une recherche à laquelle vingt agriculteurs de la région ont participé afin de partager les défis auxquels ils font face ainsi que les solutions qu'ils recommandent. Six indicateurs clés ayant un effet direct sur l'agriculture de la région ont été relevés et chacun des six articles de la série traite d'un facteur spécifique.

Le présent article cherche à brosser le portrait de la relation toujours plus ambiguë entre l'agriculture régionale et sa clientèle. Nous voulons montrer que le tableau actuel n'est pas figé dans la glace et que des solutions peuvent être apportées pour freiner l'effritement de ces relations.

Historiquement, c'est après la Seconde Guerre Mondiale que les marchés locaux et les relations de producteurs à consommateurs ont été progressivement éludés. Cette tendance, qui nous

a menés vers la société de consommation que nous connaissons aujourd'hui, est en grande partie responsable de la déliquescence des relations directes et de la captation de la clientèle par la grande distribution.

La grande distribution a des pouvoirs magiques : elle sait se servir de la publicité et des stratégies de marketing parfois agressives qui lui sont associées. Ceci a un impact psychologique crucial sur le comportement des consommateurs. Dans un même temps, la facilité qui est proposée de faire toutes ses commissions au même endroit et en peu de temps séduit les personnes qui manquent de temps. Car voilà un aspect sur lequel on ne peut pas transiger lorsqu'on souhaite établir une relation directe : le temps. Ni les consommateurs, ni les agriculteurs n'ont le temps de se rencontrer pour réaliser ensemble l'échange d'une nourriture saine. L'agriculteur a beau avoir tous les arguments du monde en faveur des aliments qu'il produit, il n'a tout simplement pas le temps de les promouvoir. De même, le client sait très bien que les ressources du terroir sont autrement plus saines que celles qu'il peut se procurer de par ailleurs. Tout est question de temps, dans une société où chaque journée est une course vers le lendemain.

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# Breaking Ground

(in Northeastern Ontario)

## Une dose de coopération pour soulager les maux des agriculteurs

Dans cette relation toujours plus industrialisée, la clientèle perd graduellement la connaissance des produits disponibles dans la région parce que les agriculteurs n'ont pas le temps d'en faire la promotion et de se mettre de l'avant. Les agriculteurs deviennent de simples producteurs et cultivent des produits en vrac. Ce sont les distributeurs qui jouent le rôle de pivot commercial, un rôle essentiel dans l'établissement de relations de confiance.

Lors de nos entrevues avec les agriculteurs de la région, il a été suggéré de se mettre ensemble afin de regagner la confiance des consommateurs et les inciter à acheter local en énonçant les arguments implacables de la nourriture saine. Ensemble, les agriculteurs pourraient très bien étudier les besoins de la clientèle, tout comme le font les grands distributeurs, et revenir vers un contact direct avec les consomma-

teurs. Les agriculteurs sont prêts à tisser de nouveaux liens, à montrer avec quelle passion ils produisent et à quel point ils sont amoureux de leur ouvrage pour que leur communauté puisse avoir de bons produits. La valeur ajoutée du produit du terroir est l'énergie et la dévotion personnelle qu'un artisan y investit. Incapables de gagner sur le front de la passion, les grands distributeurs ont ici leur talon d'Achille.

Selon certains experts, les producteurs devraient s'organiser pour ouvrir leurs propres épiceries et ainsi s'approprier les canaux de distribution. Ce sont eux qui prennent les risques, ceux de voir leurs récoltes ou leurs cheptels perdus. Pourquoi alors ne devraient-ils pas aussi récolter l'essentiel des profits?

De l'éducation et de l'information pourraient être utilisées pour faciliter cette renaissance de la vente directe. Les agriculteurs pourraient par exemple s'impliquer

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dans les projets de soupes populaires, ceux de jardins communautaires, d'ateliers de jardinage et autres. Alors que les services à la clientèle font une réelle différence dans le maniement des clientèles, les agriculteurs doivent être prêts à séduire afin de gagner des consommateurs.

Des exemples foisonnent : l'agriculture partagée et la vente directe à la ferme ou par livraison du producteur recueillent les faveurs des clients et démontrent l'engagement continu des agriculteurs.

Par la formule coopérative, nous sommes d'avis que les agriculteurs pourraient se mettre ensemble pour réaliser les tâches de promotion et de commercialisation de leurs produits. Ce rétablissement des contacts entre producteurs et consommateurs serait un bel exemple d'entraide et plus encore, il contribuerait à la santé et au bien-être de nos communautés en région.

## Canola Grain and Straw Yields at New Liskeard and Verner

John Rowsell and John Kobler New Liskeard Agricultural Research Station

We participate in the Ontario Oilseeds and Protein Seed Crop Committee (OOPSAC) Spring Canola Cooperative Variety Trials. These trials contain entries that are available to producers and ones that are not yet registered. There are some varieties that are included for several years; others are not at the discretion of the sponsoring company. Unlike other stations participating in these trials, we measure both grain and straw yield.

Two varieties have been designated as 'check' varieties for 2011. These were 45H28 and 72-55 RR. Check varieties are benchmarks and for registration purposes. New varieties must have acceptable yields relative to the checks before OOPSAC will recommend to the Canadian Food Inspection Agency that the variety should be registered and become available to Canadian farmers. There are other quality and disease resistance criteria that must also be met before OOPSAC will make that recommendation.

The following table presents grain and straw yield data for New Liskeard and Verner for 2011 and 2010. You will note that only 7 varieties were present in the trials for 2 years. Also, the grain yield data for Verner in 2010 was not reliable due to extensive

### NLARS

		% Mean of Checks					
		Grain Yields		Straw Yields			
		New Liskeard	Verner	New Liskeard	Verner	New Liskeard	Verner
Bayer	5440	98	109	102	116	136	106
Bayer	OCN0285	93		84	106		103
Bayer	8CN0021	96		119	95		104
Bayer	L130	96		90	103		94
Bayer	L150	99		109	116		113
Canterra	1970	76		69	103		93
Canterra	1990	90		125	83		101
Dow AgroSciences	1012 RR	44		74	102		104
Dow AgroSciences	2012 CL	93		81	105		90
Dow AgroSciences	2014 CL	71		75	83		76
La Coop Federee	6060 RR	82		87	89		94
Monsanto	72-55 RR	103	100	84	101	99	87
Monsanto	73-15 RR	79		80	83		75
Monsanto	73-55 RR*	112		88	95		87
Monsanto	73-75 RR	94	98	123	88	69	103
Pioneer	45H21	71	82	106	98	93	113
Pioneer	45H28*	97	100	116	99	101	113
Pioneer	45H29	87	104	96	81	108	109
Pioneer	45H31	91		105	85		110
Pioneer	45S52	75	63	93	119	92	112
Pioneer	46H75	90		86	108		117
Pioneer	46S53	82		99	102		103
		kg/ha @ 8.5% moisture				kg/ha @ 15% moisture	
Mean of Checks*		2193	2454	2070	3340	5154	3480
							4919

Analyses from 2010 showed that canola straw contains approximately 0.95% N, 0.16% P<sub>2</sub>O<sub>5</sub> equivalent and 1.62% K<sub>2</sub>O equivalent.

Grain and straw yield data from New Liskeard and Verner are available for spring cereals as well. To see that data, please visit [www.gocereals.ca](http://www.gocereals.ca).

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# OSCIA NEWS

A NEWSLETTER TO UPDATE  
OSCIA MEMBERS, PRESIDENTS, SECRETARIES,  
TREASURERS, DIRECTORS,  
AND OMAFRA AGRICULTURE DEVELOPMENT  
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## **Message from the President - Max Kaiser**



Greetings from your  
President...

Crazy weather! I mean the whole year! Even now it seems to be warmer than normal. At least so far. It usually snows by November 15<sup>th</sup> (Dad's birthday) around here, but that doesn't seem likely given current temps and forecasts. So, I will be brief as I have been busy

trying to get done what was delayed from the start!

Networking and communication. I have talked about these things previously. We are seeing some growth and evolution here. Recently, a professor representing the U. of Guelph attended an executive committee meeting. This begins a new relationship of information sharing with the intent being to build a bridge of awareness between research and production in agriculture. We are certainly excited about this.

The Outdoor Farm Show happened in September and while we weren't able to replace Bayer's sponsorship to provide Free Tickets, we were pleased to have begun a new partnership with Syngenta. They sponsored breakfast for many farmers and our members were able to register to get online tickets. The number of people taking part in breakfast exceeded our original provision for 900, yet Syngenta welcomed all on the two days and over 1000 ended up getting fed. The online tickets were a new direction for us, and despite a few hiccups, it is a direction we will continue in the future. So, make sure you get your email addresses up to date and share them with your local secretaries!

With the final year for cost share associated with EFP at hand, applications have been taken fully committing the available funds. Talks are beginning

to happen around the nature of programs to begin in 2013. I am sure we all know the success of these programs: \$1 of government funding results in approximately \$3 of private money invested. But, we also know demand for programs exceeds the dollars available from government, so take every opportunity to thank your federal MP for the support to date, and encourage them to continue investing in agriculture.

Finally, congratulations to all Forage Masters winners. This program has had another successful year. Thanks to the sponsors, Pickseed Canada, SGS Agri-Food Laboratories, and the Royal Agricultural Winter Fair who provide prizes for our winners. Good luck to our finalists who will travel to Guelph for judging on November 8<sup>th</sup> and to the Royal Agricultural Fair in Toronto on November 9<sup>th</sup>. This is a great event for one of Ontario's leading crops!

So, this weekend looks good for getting some field work done. Perhaps, it will finish harvest for some of us!! Perhaps not! Either way, make the best of it and remember: driving tractors is one of our greatest joys; don't be in a rush, do it right, slow down and enjoy it!

## *Max*

### ***Seed Bytes - Gene Pools, Biological Diversity & International Sharing of Genetic Resources***

'Germination' magazine provides an analysis of both the 'International Treaty on Plant Genetic Resources for Food and Agriculture' and 'The Convention on Biological Diversity' (CBD). Read all about it at:  
[http://www.germination.ca/index.php?option=com\\_content&view=article&id=311:sept2011-sharing-genetics&catid=62](http://www.germination.ca/index.php?option=com_content&view=article&id=311:sept2011-sharing-genetics&catid=62)

The Nagoya Protocol, adopted in October, 2010, by 193 countries, is a transparent legal framework to effectively implement one of the objectives of the CBD: the fair and equitable sharing of benefits arising out of the utilization of genetic resources: <http://www.cbd.int/abs/about/>

Where does Canada stand on the Nagoya Protocol? Canada was one of the 193 to adopt the Nagoya protocol but has recently conducted a consultation before considering whether to sign this new international treaty. The deadline for countries to sign the Protocol is February 1, 2012. Signature indicates the intent to consider ratification at a later date. Review Canada's discussion paper at:

[http://www.cen-rce.org/eng/consultations/comment\\_calls/documents/managing\\_genetic\\_resources.pdf](http://www.cen-rce.org/eng/consultations/comment_calls/documents/managing_genetic_resources.pdf)

Harold Rudy, Secretary-Manager, Ontario Seed Growers' Association

### ***Local Annual Meetings Update***

Need a gift for your local annual meeting? What about our OSCIA vests and matching hats?



Double-sided fleece vests with the OSCIA logo embroidered, and embroidered OSCIA hats are available for your local association to use at upcoming winter meetings as gifts for a special member or speaker, or as fundraising items at upcoming local annual meetings.

Also available are OSCIA member gate signs, Tru-Chek rain gauges & OSCIA Rain gauges. These items are available to local and regional associations on a cost-recovery basis by contacting the provincial office.

### ***Benefits for OSCIA Members Update***

In response to the recommendation by the OSCIA Membership Committee, the board passed a motion of support for their proposal to increase the

membership fee per member from \$5 to \$7.50. This motion was voted on and passed during the February 2011 Annual meeting and was set in place for the 2012 OSCIA year, which began on October 1, 2011.

The benefits to members are many, and local associations are asked to reflect on these benefits.

A few of the benefits to members are:

- \*Discounts to selected agricultural conferences & shows
- \*Use of Grant dollars for on-farm demonstrations & trials, educations & innovation
- \*Receive a quarterly newsletter
- \*Option to participate in the Ontario Forage Masters Program
- \*Access to trial results for Soil & Crop Management across Ontario
- \*Network with other progressive farmers in your area at meetings, on bus tour & twilight tours
- \*Bring local views to the annual meeting to give the association direction
- \*Opportunities to contribute as a leader at the local, regional or provincial association level
- \*OSCIA has farmer representation on 15 Ontario Agricultural Research Committees & 2 Coalitions

Suggestions for future opportunities to support the local associations and members will be most welcome.



#### ATTENTION SEED GROWERS

Watch for the notice of the OSGA Annual Meeting coming to your door in November.

The meeting is taking place on Tuesday, December 7 at the Four Points Sheraton Hotel in London.

#### Ontario Regional Biomass Tours Breed Interest

Ontario Regional Biomass Tours, held this fall, illustrate producer and industry demand for more information-sharing events.

As a means to highlight the diverse activities occurring in the biomass industry across Ontario, OSCIA, in conjunction with OMAFRA, OFA, & U of Guelph members, biomass producers, and industrial leaders, held Ontario Biomass Regional Tours from September 26-October 3.

Each day of the tour was organized to explore various aspects of the biomass value chain with sites including everything from new field plantings to on-farm, end-use injection moulding facilities.

The Ontario Biomass Regional Tour was a free event organized by the Ontario Field-Scale Agricultural

Biomass Project. Starting in Leamington on day 1 and ending in Prince Edward county on day 6, each day lead registrants to different regions, highlighting the diversity of biomass industry across the province with 22 different stops.

Participants were primarily producers already growing purpose-grown biomass or interested in growing it, provided an end market was demonstrated. Government, university researchers, and ag-industry organizations were also present. 61% of the registrants completed an online evaluation with very positive feedback; 100% were “extremely” (63%), or “moderately” (37%) satisfied with the tours. Additional comments after the event illustrated the overwhelming desire for producers and industry end-users to learn more about ongoing operations and research across the province.

OSCIA, OMAFRA, OFA & U of Guelph is moving forward to organize more interactive forums for interested producers, hopefully starting this winter, as well as striving to raise the profile of agricultural biomass at major farm events, including Growing the Margins and Canada’s Outdoor Farm Show. Current planning is underway for a 2<sup>nd</sup> annual Regional Biomass Tour in early September, 2012, with increased publicity and hard literature for hand-outs. Details will be made available as soon as possible.

Please direct any inquiries to Nick Betts, Outreach Coordinator [nick.betts@ontariosoilcrop.org](mailto:nick.betts@ontariosoilcrop.org) | 519.826.4219.

#### OSCIA 2012 ANNUAL MEETING

February 7 & 8, 2012

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591 Wellington Road South  
London, ON N6C 4R3

#### A Highlight of Key Speakers:

1. John Heard, Soil Fertility Specialist
2. Dr. Bill Tierney, Economist Ag. Resource
3. Dr. Joe Schwarcz, Director of McGill University, office for Science & Society

# **Breaking Ground** (in Northeastern Ontario)

# The Northern Ontario Food Symposium, a Step towards Food Democracy in the North

*By Christian Howald, Conseil de la Coopération d el'Ontario*

On the 30<sup>th</sup> of September, the Northern Ontario Food Symposium was held in Sudbury where more than 80 delegates from everywhere in the province participated in order to share their knowledge, create links and find solutions to food issues they are facing.

Thanks to the help of many partners, le Conseil de la coopération de l'Ontario was able to host this event. We wish to thank L'Alliance des caisses populaires de l'Ontario for their sponsorship as well as la Coopérative Boréal, Coopérative régionale de Nipissing-Sudbury, Tourism Sudbury, LaCloche Manitoulin Business Assistance Corporation (LAMBAC) and the Rural Ontario Institute.

The aim of this symposium was to gather leaders of the many projects involved in the regional food industry and develop a common vision to move forward. With the help of five speakers (Tom Reid / Vinegar on the Rocks; Errol Caldwell / Sault Ste. Marie Innovation Centre (SSMIC); David Thompson/ Northern Ontario Research Development Information and Knowledge (NORDIK); Mike Milinkovich / North-Eastern Community Network (NeCN); Isabelle Legault / Field Good Farm, Ferme j'me champs bien), it was made obvious that above and beyond community specific challenges we all face, we all run into similar obstacles affecting the distribution and access to regionally produced foods

in our respective communities.

The discussions and exchanges which followed were clear and concise. There are a great number of small associations throughout Northern Ontario that are involved in access to local food and the demand for such products is constantly on the rise. However, that demand cannot be fulfilled because the processing, distribution and sales infrastructure for regionally produced food has been crippled in a system monopolized by large corporations with no ties to the region. This situation is perpetuated because our low population density and great distances separating us make it difficult to gather the critical mass needed to become financially viable and sustainable. Furthermore, the cost of developing the needed infrastructure is too restrictive for individual groups. That is why the participants of the symposium were unanimous about the necessity to join forces to develop the needed infrastructure.

The next step from here is to gather the participants who are interested in joining a steering committee to move forward with the project. We must develop a democratic network that represents the needs and visions of every part of Northern Ontario. If you are interested in getting involved or learning more about this project please feel free to contact Christian Howald in Sudbury (1-866-338-3361 / Christian.howald@cco.coop / www.cco.ccop).



*Season's Greetings and  
Happy New Year*

*Joyeux Noël et bonne  
heureuse année*



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# Breaking Ground (in Northeastern Ontario)

## Canola Grain and Straw Yields at New Liskeard and Verner

Continued from page 16

shattering losses before we could get down to Verner to harvest. Yields in 2010 were from direct-combined plots. Cutting height was the same for all varieties.

One of us (Kobler) built a swather to be used in the canola plots; therefore, the plots were swathed in 2011 and combined later when the seeds were mature and sufficiently dry. Swathing height was the same for all varieties.



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The DEKALB® brand's performance in Northern Ontario is getting noticed this fall for all the right reasons. The introduction of Genuity® Roundup Ready 2 Yield® soybean varieties have been a resounding success. They have delivered on their promise of more beans per pod than the original Roundup Ready soybeans and advancements in yield potential. For 2012, the successful introductions of 25-10RY and 25-60RY will be joined by 24-10RY to round out a complete lineup for all maturities across the north.

With the warm summer and ample amount of heat units, DEKALB corn performance for both grain and silage harvest have been extremely positive. 2012 will see many new and exciting introductions for both genetics and technology. DEKALB will be launching 3 new genetic families from 2100 to 2300 heat units. DKC26-25, DKC27-54 and DKC28-76 will be new high yielding Roundup

Ready corn2 offerings. DEKALB will also be introducing the Genuity® Vt Double Pro™ trait to the market which will provide growers with the better double for better performance. With dual modes of action for above ground control of primary pests including corn earworm and fall armyworm, Genuity® Vt Double Pro™ hybrids offer broader protection than other 'double stack' technologies. Plus, they offer reduced refuge benefits to just 5% of planted acres. 2 new Genuity® Vt Double Pro™ hybrids, DKC26-28 and DKC27-55, will be available in limited quantities next spring and no doubt, this will be a game changing technology for Northern Ontario corn growers.

For more information on DEKALB® brand products and their performance, visit [www.DEKALB.ca](http://www.DEKALB.ca) and consult your local DEKALB® dealers.

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### Mountain Maple Syrup Products

had a colourful booth at The Royal with Sue Manchur, daughter Amy, granddaughter Megan, Don Manchur, Ches Wallace & Bob Bringleton



NOAFEM's member was included in the Northern Ontario Agri-Food Pavilion sponsored by FedNor this year. Mountain Maple Products, a St. Joseph Island maple syrup operation, is owned by a long-time Islander, Ches Wallace and Don Manchur of Laird. They tap 5000 trees on P Line on 100 acres of limestone. In recent years, they have increased their production till this year they harvested 850 gallons of syrup. The syrup is sold from Parry Sound to Thunder Bay. Most of their syrup is sold directly to people that they know. For the past five years, they have gone to the Hymers Fall Fair in September and have supplied the Maltese Store, a gourmet shop, in Thunder Bay. Mountain Maple Products sold maple butter, candy and syrup at The Royal and showed a video of the syrup making process from tapping to marketing. It is estimated that 41,000 people taste-tested their maple syrup, according to Don's calculations. Ches and Don were very happy with their first experience at The Royal.

### This & That at the 89<sup>th</sup> Royal

Several NOAFEM members had their own booths in the Northern Ontario Agri-Food Pavilion. **Boreal Forest**

**Teas**, Thunder Bay and **From the Forest**, Warren enjoyed five days at the Royal this year.

NOAFEM had a booth for the 10<sup>th</sup> year and a variety of members' products were sold.

Northern Ontario Agri-Food Education & Marketing Inc.

Carol Tozer and her daughter enjoyed meeting customers in their *From the Forest* booth.



A wonderful display of knitted and felted items representing Northern Ontario wool, mohair and alpaca farms



Lambchops, puppets, little wool sheep and recycled mitts were "hot" items that sold out. Jams, jellies, pickles and honey products are always good sellers with customers coming each year to search for new items from their favorite producer.



Dignitaries at the 2011 Royal included Lieutenant Governor David Onley; the Honorable Tony Clement, Minister responsible for FedNor; Ian Miller, Canadian Olympian; and artist Robert Bateman.



Simran Sidhu of Brampton's W.G. Davis Middle School watches a spinning demonstration in NOAFEM's booth



Ken Lane explains his worm farm (vermi-composting) operation to Kenora M.P. Greg Rickford.

David Cooke, head chef at Arowhon Pines in Algonquin Park used Northern Ontario garlic from Jonathan Gerber's farm in Warren when he prepared Milford trout on the Royal's *Home & Entertainment Stage*. Garlic was one of the products available in NOAFEM's *Boreal Harvest* booth.



NOAFEM thanks Don Poulin Potatoes Inc. of Azilda for his donation of 50 - 5 lb. bags of potatoes which were sold to help offset expenses..

# North East Community Network

*Mike Milinkovich, Mayor Township of Black River-Matheson*

**Floods... tsunamis... heat waves... hurricanes... earth quakes... water shortages... sound familiar?**

We are faced with daily reports of the natural disasters around the globe and even in many other parts of Canada. Considering the many problems in so many areas of the world, we are truly blessed to be living in Northeastern Ontario!

But the economies within most of the municipalities in Cochrane District are based primarily on the mining and forestry sectors. Both sectors are prone to "boom and bust" cycles. Once a mine is depleted of ore, jobs are lost and municipalities suffer. Once a forest is clear-cut it takes between 40 and 60 years for the trees to grow back. Tourism is largely a minor contributor to local economies. We looked at how could we diversify our economy and Agriculture

came up as a viable opportunity.

Agriculture is not a major contributor to the economy of Cochrane District. But in the early 1900's farming was one of the major sources of jobs within the district. There are many factors present today that suggest the growth and resurgence of agriculture within Cochrane District is not only possible but is essential to mitigate the effects on our local economies from the mining & forestry boom & bust cycles and to take advantage of the agricultural opportunities resulting from climate change.

A regional economic development organization called the North east Community Network (NeCN) was created in 2008. The NeCN coordinates regional projects that promote the integration and expansion of local economic development

into a powerful regional cooperative model to help transform the economic landscape of the Cochrane District municipalities along the Highway 11 corri-

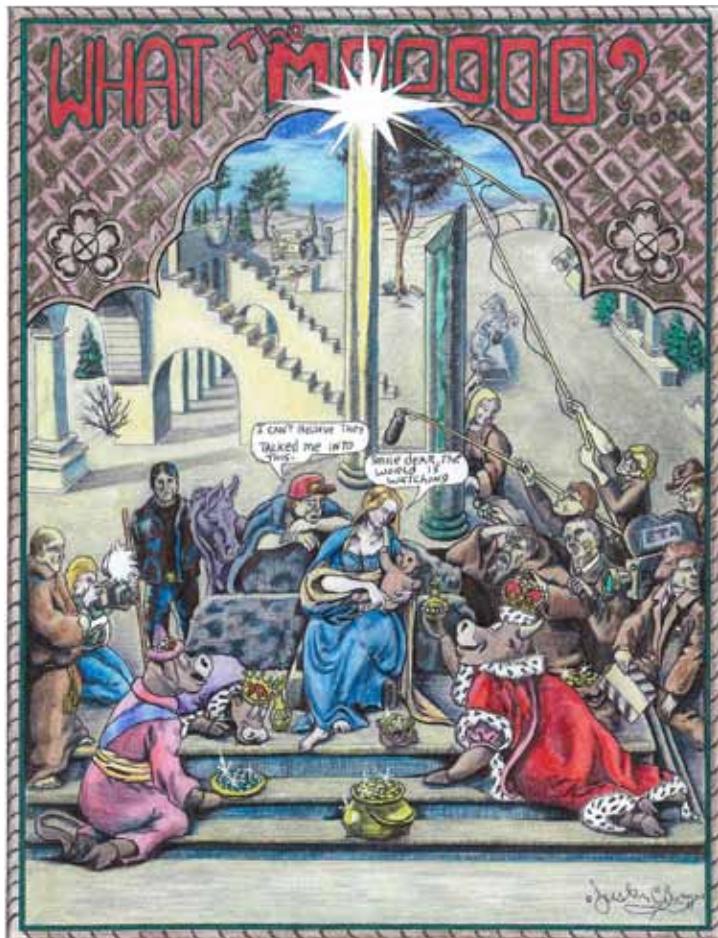
dor. In essence, the NeCN attempts to create "one voice" for regional economic development.

The NeCN is made up of twelve municipalities from Black River-Matheson to Hearst, including Timmins, two First Nations and three Community Futures Development Corporations.

A major NeCN initiative was the creation of an Agricultural Steering Committee in 2009 charged with the responsibility to develop agriculture as a significant contributor to local economies. Toward this purpose, this committee was instrumental in developing a partnership with the School of Environmental Design and Rural Development at Guelph University. Early in 2011 Guelph University launched a study of agriculture within the NeCN catchment area as part of an OMAFRA-funded project to Identify agricultural opportunities and best practices toward the creation of economic prosperity within the NeCN Agriculture sector.

You may ask, what is our target, what are we trying to achieve? For answers consider that the 2006 Canadian census reported that agricultural-based revenues from Cochrane District were \$10M; Algoma & Manitoulin Districts together approximated \$34M; and Temiskaming at \$80M. The NeCN goals are twofold:

- Ensure that Cochrane District achieves self-sufficiency in food production by the year 2050, and
- By 2050, also increase total agricultural-based revenues 10 fold to \$100M.



This month's artwork comes from Justin Burry of Englehart.  
View more of his work at <http://justin-burry.tripod.com>

2011 Canola Challenge Winners			
1st place \$2,000	Don Curry Agronomist: Ralph Voisin Huron Bay Co-op, Chesley	3426 lbs/acre	Owen Sound Grey County
2nd place \$1,000	Nick Cressman Agronomist: Quinten Hopcraft FS Partners, Drayton	3292 lbs/acre	Mount Forest Wellington County
3rd place \$750	Kris Bryan Agronomist: Chrissie Schneider Holmes Agro, Orangeville	3160 lbs/acre	Grand Valley Wellington County
4th place \$500	Roy Schubert Agronomist: Terry Phillips Co-op Regionale	3124 lbs/acre	New Liskeard
5th place \$500	Jon Wiley Agronomist: Randy Martin Sprucedale Agromart	3119 lbs/acre	Meadford Grey County
6th place \$500	Mike Schill Agronomist: Rob Hill Bayer Crop Science	3102 lbs/acre	Arthur Dufferin County

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