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# Breaking Ground

(in Northeastern Ontario)

SPRING 10

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

## 2009 a Banner Year for NEOSCIA

by Janet Parsons, President

A year like no other for agriculture in North Eastern Ontario. The President of OSCIA, Murray Cochrane, was from Algoma; the winner of the Ontario Forage Masters competition, James Parsons, was from Nipissing; and the International Ploughing Match was in Temiskaming. It doesn't get much better than that and these successes were matched by what NEOSCIA accomplished in 2009.

NEOSCIA introduced four new initiatives. First, the pan north-eastern Crop Caravan concept was introduced with much success. Keith Reid travelled to all 8 districts in 5 days discussing Nutrient Management Solutions. The RCC, Graham Gambles, accompanied him and promoted NEOSCIA and met producers.

Next, a link was established with Nipissing University which resulted in a weather station and remote sensing project in Nipissing and Temiskaming districts. Right now



A new management tool for northern farmers?

NEOSCIA is facilitating the development and funding of an agricultural remote sensing research project with Nipissing University worth about a million dollars. Agribusiness in north eastern Ontario is being asked to provide about \$45,000.

In August, Kelly Bird was hired as a FedNor intern to assist with NEOSCIA promotion and research projects. She developed promotional materials, the IPM booth, and provided manpower for booths at both the IPM and the Royal Winter Fair. She has also done extensive background work on

*Continued on page 2*

## FCC Energy Loan

Effective March 01, 2010, Farm Credit Canada is offering a new loan to farm operators who are considering the use of renewable energy sources in their business. The "Energy Loan" will help producers and agribusiness operators purchase and install on-farm energy sources like biogas, geo-thermal, wind and solar power. The loan offers a variable or fixed interest rate, valid for a term up to 5 years.

A recent "FCC Vision Survey" of over 1100 individuals and agribusinesses showed that 37% of the respondents are looking at reducing their environmental footprint by implementing the use of renewable energy options in their operation, and 60% of those surveyed are "considering new ways to find financial value by reducing their environmental impact".

Speak to an FCC representative at the 2010 Earlton Farm Show, April 9 & 10.

### 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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*E-Mail:*  
gamblesgraham@yahoo.ca

## OBITUARY



### Walker Roy Riley (1920-2010)

Long time OMAFRA collegiate, Walker Riley of Muskoka District, passed away on February 21, 2010. A specialist in pasture management and field crops, Walker was always a great asset to the Soil & Crop organizations across the North. His body is interred at St. Mark's Cemetery, Milford Bay.

## COMING EVENTS

### NEOSCIA 2010 Annual Farm Show & Conference

Friday April 9 - Noon to 9pm

Saturday April 10 - 7am (pancake breakfast) to 3 pm

### NEOSCIA "Crop Caravan" Weed & Spray Show with OMAFRA's Mike Cowbrough;

June 14: Muskoka & Parry Sound Districts

June 15: Nipissing & Sudbury Districts

June 16: Manitoulin & Algoma Districts

June 17: Cochrane District

June 18: Temiskaming District

NEOSCIA Summer Tour, Sudbury District, Friday, August 06, 2010

## USED EQUIPMENT

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## 2009 a Banner Year for NEOSCIA

Continued from page 1

biomass and gave a presentation to high school students in New Liskeard. While the intern project was initiated by NEOSCIA, it is in partnership with the Temiskaming Crop Coalition. Kelly has been working with them and has developed a blog with news and links to BG and the Nipissing University weather station: (<http://temiskamingcc.blogspot.com/>)

Finally, the reporting to Breaking Ground was enhanced by securing Sharon Lane from Algoma District to report on events west of Sudbury.

The only setback during the year was when a fierce snow storm closed the highway during the Trade Show and Conference in Earlton in early April. This is the major fund raising event for NEOSCIA and since it was a wash it made for a difficult year thereafter.

Turning to plans for 2010, the Conference and Trade Show is on April 9 & 10 in Earlton. The Crop Caravan will have a 'Weed and Spray' focus and will be in a 'location near you' in early June. The summer tour will be in Sudbury District in July. Efforts are being made to continue to improve communications using Breaking Ground, access to seminars through the web, and information sharing with the Temiskaming Crop Coalition blogspot.

Research projects continue to be a focus in all north eastern districts and for NEOSCIA. Since more Universities are becoming involved with more projects with more district associations, NEOSCIA is holding a North Eastern Ontario Agricultural Research Forum to give researchers an opportunity to share their research objectives and give farmers an opportunity to provide comments. The main objective would be to enhance co-operation and avoid duplication. NEOSCIA would like to see an overall strategy for agricultural research and co-operation in North Eastern Ontario emerge from these discussions.

We look forward to the NEOSCIA Annual Meeting in April where delegates from across northeastern Ontario take the opportunity to contribute to the future of the organization ; it's programs, research, and activities . It's the participation of farmers from across the north that makes NEOSCIA such a success. See you in Earlton in April.

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*Edited by: Brian Bell, Agricultural Representative*

### LOCAL EVENTS

**Earlton Farm Show - April 9 and 10:**

**Friday April 9th** from 12:00 -9:00 PM and  
**Saturday April 10th** from 9:00-3:00.

The location is the Earlton arena. Topics include a forage panel and a biomass panel, plus a variety of exhibits ranging from financial planning to agricultural parts & accessories. For more information please contact Kelly Bird, NEOSCIA intern at 705-647-2089.

**April** - There is interest in holding another **Advantage Good Agricultural Practices (GAP) workshop** in the area. Food safety is everyone's responsibility! That's why Ontario has introduced the Advantage Good Agricultural Practices for Ontario farmers. This resource covers food safety practices at the farm. It offers a whole-farm approach covering all aspects of crop and livestock production. The practices can be applied to any farm, regardless of size, farming methods or products produced. For multi-commodity farms, the Advantage manual allows farmers to use only one resource and keep one set of records. OMAFRA offers a series of free workshops to help you with your food safety needs. Topics to be covered in this one day workshop are irrigation water, post-harvest water, manures and composts, hygiene and an introduction to traceability. Participants will receive a copy of the Advantage Good Agricultural Practices manual plus additional resource materials related to the workshop topics. Please contact me if you are interested in participating in a GAP workshop.

**April** - there is interest in another **hand on fruit tree pruning workshop**. It is expected that this will occur in the early -mid part of April at a location in Central Manitoulin. Specific details will be made available in the April edition of OMAFRA connects.

**Week of June 14th** - NEOSCIA will be sponsoring another **crop caravan** throughout north eastern Ontario. Specific farm loca-

tions will be announced at a closer date.

Mike Cowbrough, Weed Management Program Lead - Field Crops/OMAFRA will be the keynote speaker on this tour.

### PROVINCIAL EVENTS

**March 25th – the Ontario Agri-Food Education Inc. Annual General Meeting**

will be held at Country Heritage Park, Milton, ON. For details and registration visit [www.oafe.org](http://www.oafe.org)

**March 26 & 27 – Holistic Management Course:**

Planned Grazing, Improving Sustainability, Ignatius College, Guelph.

For further information or to register please contact Fran or Tony McQuail, 519-258-2493 [ormcqfarm@hurontel.on.ca](mailto:ormcqfarm@hurontel.on.ca)

**March 30 - Strawberry School – Newtonville.**

The Ontario Berry Growers Association and OMAFRA are teaming up to provide a 1 day workshop on strawberry production on. Held at the Newtonville Town Hall east of Bowmanville this program will give growers up to date information on strawberry production and marketing. It is well suited to new growers as well as those who would like an update. Space is limited. To pre-register, please contact the Ontario Berry Growers Association at 613-258-4587 or by email at [info@ontarioberries.com](mailto:info@ontarioberries.com)

**March - Profitable Pastures**

**March 29th:** Elmwood; Elmwood Community Centre

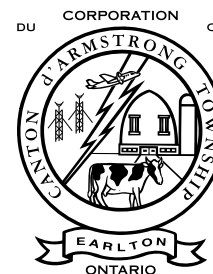
**March 30th:** Elmvale; Elmvale Community Centre

**March 31st:** Cobden; Cobden Agricultural Hall

**Key Speakers:**

- Duane McCartney recently retired from Agriculture Canada in Saskatchewan and Alberta
- Bill Gallagher from Gallagher Animal

## Le Centre Laitier du Nord



### Dairy Centre of the North

invites Everyone to the Farm Show & Maple Syrup Festival

April 3 & 4, 2009  
at the Earlton Arena



Northern Agent  
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Management Systems

Call 1-877-892-8663 to register by March 26th, \$35 includes a hot roast beef dinner Visa or MasterCard Pre-registration is necessary to ensure dinner.

Visit: [www.ontarioforagecouncil.com](http://www.ontarioforagecouncil.com)  
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### UPDATES

#### Summer jobs service:

The Provincial Government is investing in student employment in Northern Ontario through the **Summer Jobs Service program** delivered by the Ministry of Northern Development, Mines and Forestry. The Summer Jobs Service can help you by providing a \$2.00 per hour hiring incentive to hire young people. You can receive funding of up to a maximum of 560 hours per position, for example, 35 hours per week for 16 weeks at \$2.00 per hour. Subsidized placements must not begin before April 1, 2010 and must not extend past September 30, 2010. There is no minimum number of weeks. Students must be between the ages of 15 and 30

upon commencement of employment. We invite you to participate in the Summer Jobs Service initiative. Application forms can be found on the MNDMF website at [www.mndm.gov.on.ca/nordev/summer\\_jobs\\_e.asp](http://www.mndm.gov.on.ca/nordev/summer_jobs_e.asp)

#### OMIF Next Round Begins April 1:

The Ontario Market Investment Fund is now fully-subscribed for the current fiscal year, which ends March 31, 2010. The program will enter its next fiscal year on April 1, 2010. Applications continue to be accepted for projects and will be assessed on a first-come first-served basis. Those who have applications currently with OMAFRA for review will be contacted directly regarding the status of their applications. If you have any questions, please call 1-888-588-4111 or email: [omif.omafra@ontario.ca](mailto:omif.omafra@ontario.ca).

#### Canadian Agricultural Adaptation Program Announced:

The Canadian Agricultural Adaptation Program (CAAP) is a five-year, \$163-million program that aims to help the agriculture, agri-food, and agri-based products sector adapt and remain competitive. The successor to the Advancing

Canadian Agriculture and Agri-Food (ACAAF) program, CAAP will continue to support industry-led initiatives at the national, regional and multi-regional levels. Funding support is available for projects designed to: seize opportunities; respond to new and emerging issues; and path find and pilot solutions to new and ongoing issues. For more information and application forms, visit [www.adaptcouncil.org/e/current-programs/caap.php](http://www.adaptcouncil.org/e/current-programs/caap.php)

#### The Business Management Unit of the Agriculture Development Branch

is pleased to announce the launch of the Business Information Bundle (BIB) for producers Titled: Beyond Production Agriculture which will assist producers who wish to further value-add their product or services. The site is now active and can be accessed at: <http://www.omafra.gov.on.ca/english/busdev/valueadd-bib/index.htm>

The BIB was developed as a result of farmers wanting go beyond producing a basic product and add more value to capture new or emerging marketplace opportunities and capture higher returns. The interest in value added agriculture from producers also resulted OMAFRA's partnership with the Canadian Farm Business Management Council to offer the Quest for New Farm Value™ – Value Plus workshop held across the province since 2005. This new website will assist stakeholder access to information for developing a value added product or service through easy-to-use groupings of information and links. It also provides clear information for the producer regarding regulatory requirements and obligations when value



Marieke Patton  
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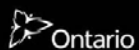
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adding a product or service.

### HIGHLIGHTS in BRIEF

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### For Berry (and Vegetable) Growers:

High tunnels provide an opportunity to extend the production season. If you have been thinking about venturing into high tunnel production, read more in "High tunnels extend your season one hoop at a time" now online at <http://www.omafra.gov.on.ca/english/crops/hort/news/allontario/ao0110a1.htm>

### New Fruit & Vegetable Information on the OMAFRA Crops pages:

For Fruit Growers: The annual task of orchard pruning is about to begin. Your pruning strategy needs to reflect basic pruning principles, but efficiency has become increasingly important as the cost of labour rises. Read more in "Thoughts on Pruning Efficiency", now online at

<http://www.omafra.gov.on.ca/english/crops/updates/soundadvice/jan10r3.htm>

<http://www.omafra.gov.on.ca/english/crops/updates/soundadvice/jan10r3-w.mp3>

## AGM of the Algoma Soil & Crop Improvement Association

by Sharon Lane, Regional Correspondent for Breaking Ground

"Does \$800 per acre income sound appealing to you?" is how Chesley (Ches) Wallace's presentation was advertised for the January 20 meeting of the ASCIA. Ches talked about the opportunities in the maple syrup industry. He gave a few statistics to start his topic. About 84-85% of all maple syrup produced in North America comes from Canada and 80% of that, Quebec produces. Ontario produces only 2-3% and Nova Scotia and New Brunswick, 3%. Maple syrup production is recession proof according to Ches. People are buying more each year and the price is going up. It sells for \$3 to \$325 per pound. However, the "down side" is that it is an expensive business to get into. It costs \$5 to \$10 per tap to set up with plastic piping and stainless steel evaporators.

He made 700 gallons in 2009 on his property on St. Joseph's Island. "Real" syrup has to be 66% and a 4 litre container must weigh 13 pounds to be sold legally. Maple syrup is organic since no herbicides or pesticides are used. Ontario has more maple trees, and they are healthier



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# OSCIA News...

March 2010

A NEWSLETTER TO UPDATE OSCIA MEMBERS,  
PRESIDENTS, SECRETARIES, TREASURERS, DIRECTORS,  
AND OMAFRA AGRICULTURE DEVELOPMENT CONTACTS —

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E-mail: [oscia@ontariosoilcrop.org](mailto:oscia@ontariosoilcrop.org)

Web site: <http://www.ontariosoilcrop.org>

## OSCIA 2011 ANNUAL MEETING

**Date:** February 8 & 9, 2011

**Place:** Sheraton Fallsview  
Niagara Falls

## Message from the President



*Barry Hill*

I am honoured to be OSCIA President for 2010. In the short period of time I have been in this post, many interesting opportunities for this organization have emerged, and while some of them may never reach the implementation stage for various reasons, it certainly does indicate to me the energy and opportunity that exists in

agriculture. Today we are at the beginning of year one of the next 70 years.

The first 70 years of operation that we celebrated last year established a firm foundation of solid county activities and built a reputation for credibility that has allowed us to expand from those early days and to deliver, on behalf of our government partners, programs that benefit not only our members but the farm community in general. Thanks to the management skills of our Executive Director and the staff he has assembled, we have performed well and with excellent fiscal responsibility.

In the past, we in the agricultural community have provided commodities for food, feed and fibre. Increasingly in recent years, we are being looked at as the source for fuel, industrial feed-stocks and perhaps even pharmaceuticals; and therein lies the dilemma for both producers and organizations such as ours.

With this increased attention we are receiving from society come increased expectations voiced by non-farming advocates around the issues on environmental stewardship, bio security, traceability, carbon sequestration, the impact on greenhouse gases of our food production practices. The list goes on.

There is no lack of issues in agriculture.

The challenge then is to position OSCIA where it can serve its members best and remain true to our mission.

We are and will remain a grassroots organization with our primary direction being producer education. This is

# Breaking Ground (in Northeastern Ontario)

closely followed by the development and delivery of stewardship programs and the development of strategic alliances to fulfill our mandate.

What does all this mean?

We have to stay the course while keeping an open mind, I believe. With our partners in the federal and provincial agriculture ministries, support from academia and industry, we will need to continue to focus on ensuring our clients receive the information they need to thrive in the future. We, OSCIA, must not try to stray too far from being the facilitators and source for solid, reliable and unbiased information needed by production agriculture.

For many of us, this is the season to reflect and regroup. Stay warm, enjoy your families, but set some time aside to get out to a meeting, not only to learn but also share your experience. ♦

## 2010 OSCIA Executive

During a portion of the recent annual meeting, elections for the positions on the Executive board were held.

The position of President, of course, was established at a board meeting in August of 2009, according to the OSCIA Constitution, with Barry Hill as designated as President-Elect.

The other members of the Executive board for 2010 are:

1st Vice President - Max Kaiser

2nd Vice President - Joan McKinlay

3rd Vice President - Henry Denotter

The board is rounded out with Harold Rudy, Executive Director, and Dawn Pate, OMAFRA as provincial adviser.

You may contact any of the OSCIA Executive members by email using their names in the email address, e.g. [firstname.lastname@ontariosoilcrop.org](mailto:firstname.lastname@ontariosoilcrop.org).

They are more than happy to hear from the members of the Association. ♦

## OSCIA Annual Meeting

*A number of excellent speakers were featured at the 2010 Annual Meeting, whose presentations will be summarized in each issue of OSCIA News in 2010 by members of the OSCIA Regional Communication Coordinator team. Following is the first article.*

### “NEW CROP ALTERNATIVES”

*Graham Gambles, RCC, North Eastern Ontario Region*

At the recent OSCIA Annual Meeting in Niagara Falls, Dr. Winthrop Phippen of the Department of Agriculture at Western Illinois University provided direction to the adventurous farmer who is seeking a new "crop" for his rotation. His institution is currently evaluating thirteen

general crops for oil production, and sixteen "bioenergy" crops for direct burning.

His #1 choice for industrial applications is CUPHEA, an oil-seed crop that produces a fatty acid oil for the detergent industry. There are 260 species worldwide, so there is a highly variable genetic stock for interbreeding. (Production guidelines are being developed for the best varieties.) The seed is small and must be harvested green at 50% moisture, then dried. Corn earworm is the worst problem.

For the small-scale producer, NIGER seed has the greatest potential. This \$11 billion crop comes entirely from India and Ethiopia at this time, and was worth up to \$0.88/kg this past year. There are limited varieties available. The crop only needs about 60kg/ha of N, with no P or K, but it does need a whole whack of bird protection and insect control management!

Common MILKWEED is the next best alternative as the "floss" has a high thermal rating that is comparable to "down". (It can be purchased as "Hypodown" in comforters, while low quality floss is used in acoustical tile.) Seed is also sold to Monarch Butterfly farms, where the insects (worth \$85-\$95/dozen) are raised for release at special events such as weddings. The seed wholesales at \$50/# and retails at \$120/#. It is a perennial crop that takes two years to production. It is harvested at a wet stage with a modified ear-corn picker, then bagged and dried. Unfortunately, it is considered to be a "noxious weed" in Ontario, so it is essential that a producers' association be established to show its value as an industrial crop, and lobby for its removal from the list.

CASTOR is an annual biodiesel crop that can produce 900 to 3000#/ac. of seed at 45 to 50% oil (fatty acid). Similarly, FIELD PENNYCRESS produces 1500 to 2000#/ac. at 36% oil. This winter annual is planted in November and harvested in June in Illinois (Sept. planting in Alberta). Pennycress is still in the production research phase with breeding line development. They are looking at crop rotation, and it is expected that Soy will follow this alternative crop as soy gets a 3 bu. production gain.

CAMELINA, producing 1400 to 1800#/ac. at 38%oil is an omega-3 fatty acid that can be used for salad oil, livestock feed, biodiesel and biodegradable lubricants. The seed size is comparable to Canola. It is being field tested across the US and Canadian prairies, with Agriculture and Agri-Food Canada research being done in Saskatoon and Lethbridge.

Bioenergy crops include sugar beet, millet, switchgrass (4-8 T/ac), miscanthus (5-15 T/ac) and bundleflower. Maize is used as a check crop (9.9T/ac.) in this program. Miscanthus holds the most promise, and is already in use. Gildale Farms of St. Marys (Ont.) produces biomass pellets, while "Founders of Advanced Feedstock" is the largest supplier of planting stock. Meanwhile, major research is being conducted by a team consisting of the University of Guelph and University of Illinois at Urbana-Champaign. ♦

# Breaking Ground (in Northeastern Ontario)

## New Outreach Coordinator

OSCIA welcomes Nick Betts to the position of Outreach Coordinator working out of the provincial office in Guelph.

Nick's focus will be on increasing membership and on a number of special projects. Membership benefits will be promoted with a goal of increasing our numbers, and one target area will be young farmers – making them aware of OSCIA and the benefits of belonging, and engaging them in on-farm demonstration activities. He will be encouraging this effort through 4-H and Junior Farmers Association of Ontario.



Another goal will be to strengthen the connection between the local, regional and provincial SCIA's. Members will be hearing more of plans in this area in the coming months.

After earning a B.Sc. in ecology at the University of Guelph, Nick is now finishing a M.Sc. at Wilfrid Laurier in biogeography, with the anticipated completion date this year.

Nick recently worked for the Grand River Conservation Authority (GRCA) first as Operations Manager at Elora Gorge Park, then moving into the position of Conservation Specialist in their Cambridge office. In this position, Nick became familiar with the Source Water Protection program and Rural Water Quality initiatives.

After growing up in Elmira and playing junior lacrosse and hockey in Elora, Nick now gives back to the community by volunteering his time to referee minor hockey. He is active in his local church, where he plans to be married this coming June.

Local and regional association presidents, secretaries and their executive members are encouraged to contact Nick at [nick.betts@ontariosoilcrop.org](mailto:nick.betts@ontariosoilcrop.org) or at the provincial office 1-800-265-9751, ext 6-4219. ♦

## Growing the Margins Conference & Exhibition/Canadian Biogas Conference

<http://www.gtmconference.ca>

March 8th - 12th, London Convention Centre

- The fourth year of this important conference dealing with a varied range of topics encompassing the possibilities emerging in the new bioeconomy.
- Sessions on solar, biomass, biogas, wind, products and materials.
- Explore what the possibilities are, and how to participate in them.

March 8 - workshops and forums

March 9 - Technology Tours

March 10 & 11 - Conference

To register, contact the admin coordinator at 416-426-7029 or [reg@gtmconference.ca](mailto:reg@gtmconference.ca). ♦

## 2010 Ontario Forage Masters

Plans for 2010 are coming together and will be announced in the next several days.

A general mailing will be sent to all local SCIA Presidents, Secretaries, and 2009 Contact Persons.

Guidelines will also be posted on the OSCIA website.

Prizes for this program are an excellent value. Count yourself IN for this year's program!!

[www.ontariosoilcrop.org](http://www.ontariosoilcrop.org)

## OSCIA List Server

The OSCIA list server is a service provided to subscribers on a complimentary basis, simply by signing up.

The list server distributes regular information of interest to the agricultural community regarding crop production.

A major role of the list server is to provide details for meetings and coming events, including those held by local and regional SCIA meetings. The boards of those groups are encouraged to regularly submit such information to Neil Moore who serves as the gatekeeper for the site by emailing him at [nmoore@trytel.net](mailto:nmoore@trytel.net). Members can subscribe to the list server by contacting Neil as well. ♦

## Crop Advances - Field Crop Reports

Each delegate attending the OSCIA Annual Meeting in February received a copy of Crop Advances - Volume 6, published February 2, 2010.

The delegates are encouraged to take this informative report to their local association meetings to share with other members.

This document provides over 160 pages of summaries of the many projects that OSCIA local and regional associations conducted in coordination with the OMAFRA Field Crop Team.

The report summaries both completed and ongoing projects. Crop Advances can be found on the OSCIA website under "Resources" - "Crop Advances". This is a fully documented site enabling the viewer to quickly access information on a specific topic. ♦





# CROP TALK

## OMAFRA Field Crop Specialists – Your Crop Info Source

Ontario Ministry of Agriculture, Food & Rural Affairs, Crop Technology Branch

Agricultural Information Contact Centre: 1-877-424-1300  
Publication Order Centre: 1-888-466-2372

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)

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

Mike Cowbrough, Weed Management Program Lead  
Hugh Martin, Organic Crop Production Program Lead  
Horst Bohner, Soybean Specialist  
Ian McDonald, Applied Research Co-ordinator  
Albert Tenuta, Field Crop Pathologist  
Keith Reid, Soil Fertility Specialist  
Jack Kyle, Grazier Specialist  
Brian Hall, Canola & Edible Beans Specialist  
Peter Johnson, Cereals Specialist  
Scott Banks, Emerging Crops Specialist  
Gilles Quesnel, Field Crops, IPM Program Lead  
Christine Brown, Nutrient Management Program Lead  
Adam Hayes, Soil Management Specialist - Field Crops  
Greg Stewart, Corn Industry Program Lead  
Tracey Baute, Field Crop Entomology

Editor: Joel Bagg, Forage Specialist  
Compiled by: Maggie Winn, OMAFRA, Lindsay

## Read Your Soil Test Report Carefully!

by Keith Reid, Soil Fertility Specialist, OMAFRA

Growers in Ontario can have confidence that their soil samples have been properly analyzed, thanks to the Soil Test Accreditation Program. Accurate analytical results do NOT, however, ensure that the lab provides the fertilizer recommendations that are printed in the OMAFRA publications, or that are part of the NMAN nutrient management software.

I have been contacted by several growers who questioned the recommendations included on their soil test reports. One noted that the recommendations provided by the lab would have added \$4,000 to his fertilizer bill for 160 acres. While there may be reasons for applying higher rates of fertilizer, I am sure you will want to be making those decisions yourself after considering the reasons carefully.

The approved Ontario recommendations are based on research showing that these rates provide, on average, the highest net returns to fertilizer in the year it was applied. This rate of fertilizer won't always provide the highest possible yield, but the bushels you sacrifice are the bushels that cost more to produce than they pay back.

Other jurisdictions base their recommendations on the philosophy of building up soil fertility to the point where crop yields are not limited, and then applying fertilizer each year to replace what is removed. You may want to consider this approach on land that you own, but it is hard to see the advantage to building soil fertility on rented land.

### What You Can Do

1. Submit your soil tests without listing a crop. This way, you can go directly to the tables in the Agronomy Guide (OMAFRA Publication 811), or to the OMAFRA website at

[www.omafra.gov.on.ca/english/crops/facts/fert-rec-tables-toc.htm](http://www.omafra.gov.on.ca/english/crops/facts/fert-rec-tables-toc.htm) to make your own recommendations.

2. Specify to the lab that you want to receive only the OMAFRA fertilizer recommendations when you submit your samples.
3. Read the reports carefully when they arrive to ensure they don't recommend more fertilizer than you really need.

## Manure Economics .... Again

by Christine Brown, Nutrient Management Specialist, OMAFRA

### Over \$25,000 in commercial fertilizer equivalent is produced on a 100 milking cow farm. (Example 1)

Everyone likes to save money. While "Nutrient Management Planning" is a phrase that has become associated with rules and regulations, more importantly it is a process that can generate money for the farm.

Manure is a reality on livestock farms. The handling of manure is a cost usually associated with the livestock portion of the farm. Manure handling has many costs connected with it, including equipment purchase and maintenance, the opportunity cost for the time it takes to properly apply manure to fields, and the liability when something goes wrong. Additional costs may also be incurred when the landbase is limited and additional land must be rented, or in situations where manure agreements must be established. Targetting the nutrients from manure where they are needed, and correspondingly offsetting commercial fertilizer will help to improve the manure handling cost to the operation.

Manure has value. Although mainly credited for its nitrogen, phosphorus and potassium value, manure also returns micro-nutrients and organic matter to the soil. The organic matter component from manure serves as an agent to improve soil structure and maintain soil tilth. By adding raw plant residues and microorganisms to the soil, manure helps to maintain soil organic matter levels. This improves soil moisture holding capacity, and nutrient uptake by the crop. Regular additions of organic matter results in higher yield capacity because crops are somewhat protected from weather extremes, both dry and wet. Refer to Example 2, "Increasing Organic Matter – How Much Cattle Manure Would it Take?"

Over the past decade, commercial fertilizer prices have been a roller-coaster with more ups than downs. As a result, the N-P-K value from manure has been recognized with increased interest by crop producers,

and with increased attention to detail with manure management.

Nutrient management planning using a few NMAN software short cuts will help to identify nutrients on the farm so that commercial fertilizer dollars can be targetted to where they are needed. It can be downloaded **free** from [www.omafra.gov.on.ca/english/nm/nman/software.htm](http://www.omafra.gov.on.ca/english/nm/nman/software.htm)

### Example 1 - Over \$25,000 in commercial fertilizer equivalent produced on a 100 milking cow farm

Liquid system ~ 7,000 gallons manure/cow/yr @ 7.5% DM (including wash water)

Solid system ~ 21 ton manure /cow/yr @ 21% DM

Assuming:  
N @ \$0.45/lb, P<sub>2</sub>O<sub>5</sub> @ \$0.45/lb, K<sub>2</sub>O @ \$0.50/lb

#### Liquid System

Manure N:  
\$5,670 immediate + \$1,080 residual  
= \$ 6,750

Manure P:  
immediate + residual = \$ 4,635

Manure K: = \$ 9,050  
**\$ 20,435**

#### Solid System

Manure N:  
\$3,505 immediate + \$1,510 residual  
= \$ 5,015

Manure P:  
immediate + residual = \$ 5,900

Manure K: = \$11,100  
**\$ 22,015**

**100 acres alfalfa N credit = \$ 4,500**  
(100 ac x 100 lb N credit)

## Example 2 - Increasing Organic Matter – How Much Cattle Manure Would it Take?

### To Change Soil Organic Matter (SOM) by 0.5%

Cattle manure seems to be the best manure source for building stable organic matter. Reasons include relatively high bedding use and cattle rations that are high in lignin and cellulose and materials that take longer for micro-organisms to break down.

On average, 3% of the soil organic matter pool is lost every year through decomposition

Average solid cattle manure:

- ♦ 30% dry matter
- ♦ Carbon: Nitrogen (C:N) ratio of ~ 17:1

Applying 20 tons/ac x 2,000 lbs/ton x 30% dry matter = 12,000 lbs solids.

About 75% of the solids would break down in the year of application, leaving 25% or 3,000 lbs of organic matter.

Assuming:

- ♦ 2,000,000 lbs/ac in a 6 inch layer of soil (furrow slice) and
- ♦ 3% SOM level.

20 tons of solid cattle manure would provide a 0.15% increase in SOM.

With average loss of about 0.1% OM from the soil pool (assuming a 3% SOM level), it would take **10 years of applying 20 ton/ac/yr to increase the soil organic matter level by 0.5%.**

What if 200 tons were added as a one time application? **NOT RECOMMENDED!** It would also add about 1,600 lbs of P<sub>2</sub>O<sub>5</sub> and almost 5,000 lbs of K<sub>2</sub>O and up to 1,000 lbs of nitrogen.

<sup>2</sup>Based on information from F. Magdoff and H. Van Es

## Selecting A Pasture Mix

by Jack Kyle, *Grazier Specialist, OMAFRA*

“What is the best pasture mix” is a question that crosses my desk on a frequent basis. The answer is simple, “that all depends”. Each situation needs to be looked at for the specific characteristics and then look at the grass and legume species that best match.

## Making Hay?

Is hay going to part of the management of this field? Are you looking to take a 1<sup>st</sup>-cut of hay and then graze the second growth? Or is it going to be hay for a couple of years and then become a pasture? If hay is going to be part of the management plan, then alfalfa is likely a good choice for the legume component of the mix. Alfalfa does best in well drained soils. Trefoil can tolerate more uneven drainage, so it could be a possibility if the field is poorly drained. Clovers might be considered, but keep in mind that they are slow to dry if you want to make hay. White clover is excellent for pasture. Its spreading growth habit will fill in some open spaces between bunch grasses. Red clover will only last for 2 years in a stand.

## Bunch Grasses & Sod Forming Grasses

Including both bunch grasses and sod forming grasses in a pasture mix will be beneficial. Bunch grasses include orchard grass, meadow brome, timothy, perennial rye grass and tall fescue. Sod forming grasses include smooth brome, reed canary grass, Canada bluegrass, Kentucky bluegrass and creeping red fescue.

## Orchard Grass

Orchard grass is a very productive grass that works well for both grazing and stored forage. For pasture, an advantage of orchard grass is that once the seed head is removed the plant stays vegetative for the rest of the growing season. Orchard grass is reasonably productive in dry conditions. Orchard grass starts to grow very early in the spring, well before any of the other species. The disadvantage is that when it heads out, the forage quality drops very quickly and dramatically.

## Meadow Brome

Meadow brome is almost as productive as orchard grass. Similar to orchard grass, it stays vegetative after the first seed head is removed. This is a big benefit in a pasture situation.

## Reed Canarygrass

Reed canarygrass makes excellent pasture. It does well in moist soil conditions. Because of its big root system, it can be productive in dry conditions as well. The disadvantage of reed canary grass is that it is slow to get established. It typically takes 2 or 3 years before you see very much reed canarygrass in the stand. Reed canarygrass stores energy in the base of the stem and re-grows from the top of the cut stem. For this reason, if cutting reed canary for stored forage, the cutting height should be fairly high at 3 – 5 inches (7-10 mm).

## Perennial Ryegrass and Tall Fescue

Perennial ryegrass makes excellent pasture, but generally does not last more than 2-3 years in our Ontario environment. Perennial ryegrass prefers cool temperatures and good moisture levels. Tall fescue is the best grass for stockpiling forage for late-fall and early-winter grazing. If the pasture you are seeding will be used in this way then consider tall fescue as one of the species for the mix.

For more information, refer to:

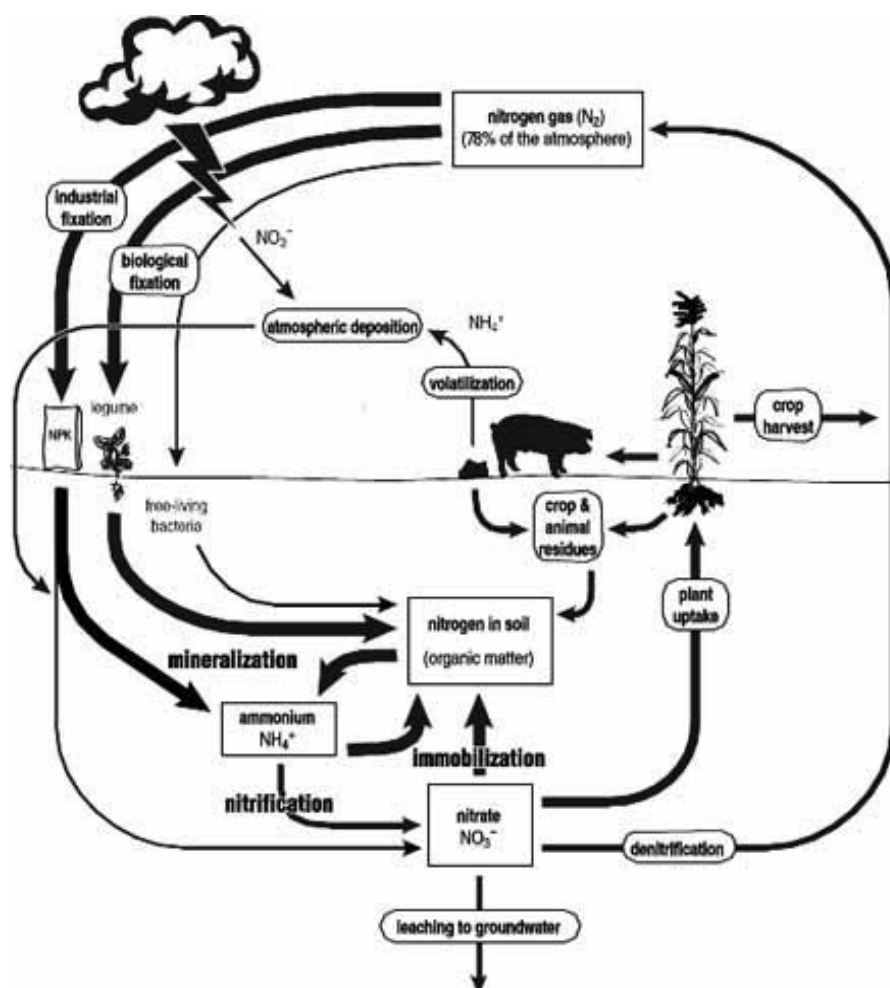
- ♦ [www.omafra.gov.on.ca/english/crops/pub811/3species.htm](http://www.omafra.gov.on.ca/english/crops/pub811/3species.htm)

## Weather Impacts on Nitrogen Response

by Keith Reid, Soil Fertility Specialist, OMAFRA

When we apply nitrogen (N) fertilizer in the spring, we are assuming a certain pattern of weather over the growing season. Fertilizer recommendations have been developed for “average” conditions. We either consider weather variations to be something that is outside of our control, or not very important relative to other variables. These assumptions, however, may mean that we are ignoring opportunities to improve N management, or that the management we do apply actually reduces rather than increases N use efficiency.

Changes in the soil as a result of weather conditions affect every part of the nitrogen cycle (See Figure), but not all of them are affected in the same way. Mineralization from soil organic matter will increase as the temperature increases, irrespective of soil moisture content, but so will immobilization. Nitrification also increases with temperature, but only in soils with adequate air. In waterlogged soils, nitrification almost stops but denitrification increases as the soil warms up.



Further complicating matters, the growth and N uptake by the crop will vary with the amount of heat and moisture available.

Understanding the impact of weather on the various nitrogen transformations in the soil has been useful for explaining what happened to a crop after the fact. Using this information to adjust nitrogen fertilizer rates is more difficult. Two approaches that seem to have some merit are starter N applications to avoid early N deficiencies, and adjusting side-dress N applications based on early season weather.

### Starter N

Cool conditions in the spring and early summer can significantly delay the release of N from organic sources, such as manure or legume plowdown. It is not uncommon to see pale and stunted fields of corn where there should have been lots on N but it is still tied up in organic forms. N applied at 15 – 30 lbs/ac at planting can overcome this “lag”, and carry the crop until the weather warms up and the rate of N mineralization increases.

Note that the only situation where this would mean an increase in total N rates applied to the field is where the organic N sources should meet the entire needs of the crop. For optimum productivity, it is probably better to leave some room for fertilizer N in your program rather than depend completely on manure.

## Side-Dress Adjustments

The adjustment that is most firmly based on research is the use of the pre-sidedress N test (PSNT) to account for the nitrate content in the soil. While it works well in some situations, critics point out that it cannot account for variations in the capacity of the soil to supply N through mineralization. An alternate approach, being investigated at Cornell University in New York State, suggests that the weather up to side-dress time can be used as an indicator of potential N supply from the soil. Researchers there suggest that cool and wet weather during May and June will depress the rate of N mineralization, so that the N fertilizer rate should be increased. This is opposite to the approach of many farmers who assess the crop at side-dress time, and apply more fertilizer if the crop looks like it has high yield potential.

Neither approach is perfect. The Cornell approach looks only at N supply, while the farmer approach assumes that the supply of N is constant and makes adjustments according to expected demand. To make real progress towards optimum N rates for different weather conditions, we will need to develop systems that at least acknowledge both supply and demand. Good conditions for corn growth are also good conditions for N mineralization, so the decision to add more N to a good crop may depend on whether that particular field has enough organic matter to supply extra the N. Similarly, conditions that reduce N availability from the soil early in the growing season would only justify increased N application if the crop appeared to have overcome any early setbacks.

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## Crop Budgeting For 2010

by Hugh Martin, Organic Crop Production Program Lead, OMAFRA

Everyone needs to know their cost of production. The OMAFRA crop budgets are once again available as **2010 Field Crop Budgets (OMAFRA Publication 60)** [www.omafra.gov.on.ca/english/busdev/facts/pub60.pdf](http://www.omafra.gov.on.ca/english/busdev/facts/pub60.pdf).

They are also posted on the OMAFRA website as **Ontario Enterprise Budgets** (both in manual and as interactive Excel spreadsheet formats) at: <http://www.omafra.gov.on.ca/english/busdev/bear2000/Budgets/oeb.htm>.

As well as the field crop budgets, the web version includes budgets for various fruits and vegetables as well as livestock Cost of Production Calculators. In total there are over 70 budgets available.

## Use Your Own Costs & Assumptions

These budgets show default values for costs, yield and expected price. However, they are only useful to you when you put in your own real costs. Your own assumptions may be quite different from those shown. Expected prices for some crops and inputs are significantly different than the past couple years, so crop budgeting is essential to maximize your returns for the whole farm.

## Considerations

What should you include in your budget? It is good to look at the costs of growing the crop from planting to harvest, but are there other costs to consider. Should the cost of cover crops be attributed to this year's crop or to next year's crop, especially if it is a legume that will allow you to reduce nitrogen next year? If you apply manure once every 3 years in the rotation, is that a cost to the current crop or should the cost be spread over the other crops according to where most of the nutrient and organic matter benefits will accrue? Should the cost of spreading the manure be attributed to the livestock enterprise or to the crop? These are decisions for you to make, but these costs must be accounted for somewhere.

## Crop Rotation

Crop rotation is a benefit that adds another complexity to yield. Having a rotation of corn-soybeans-wheat will likely increase yields 10-15% more than a continuous crop of corn or soybeans. Crop rotation is also a low cost way to spread out the workload on both you and your equipment. Adding red clover as a cover crop will add another 5-10% yield, especially for the corn crop. These effects are greater on clay soils than on loam soils. Include these aspects in determining your expected yield, especially on fields that do not get these benefits.

## Expected Yields

When deciding which crop to plant, expected yields are very important in calculating the bottom line. To determine your expected yield, look at your crop history. Some people suggest the last 6 years, which will usually include a good year, a bad year and four average years. Always use realistic expected yields and not just your best yields or area yields. In most cases you have good fields and poor fields, so consider the expected yield for each field individually.

## Organic Agriculture Information

by Hugh Martin, Organic Crop Production Program Lead, OMAFRA

There are several new **OMAFRA Factsheets** (including PDF) on organic agriculture.

([www.ontario.ca/organic/organic.htm](http://www.ontario.ca/organic/organic.htm))

“Introduction To Organic Farming” (Order No. 09-077)  
[www.omafra.gov.on.ca/english/crops/facts/09-077.htm](http://www.omafra.gov.on.ca/english/crops/facts/09-077.htm)

“Starting An Organic Farm”, (Order No. 09-073)  
[www.omafra.gov.on.ca/english/crops/facts/09-073.htm](http://www.omafra.gov.on.ca/english/crops/facts/09-073.htm)

“Transition To Organic Crop Production” (Order no. 10-001)  
[www.omafra.gov.on.ca/english/crops/facts/10-001.htm](http://www.omafra.gov.on.ca/english/crops/facts/10-001.htm)

“2009 Canadian Organic Standards” :  
[www.tpsgc-pwgsc.gc.ca/cgsb/on\\_the\\_net/organic/index-e.html](http://www.tpsgc-pwgsc.gc.ca/cgsb/on_the_net/organic/index-e.html).

“General Principles and Management Standards”  
“Permitted Substances Lists”

USDA organic production survey:  
[www.agcensus.usda.gov/Publications/2007/Online\\_Highlights/Organics/](http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/Organics/) .

## Soil Erosion, Soil Health and More

by Adam Hayes, Soil Management Specialist – Field Crops, OMAFRA

### Environmental Commissioner Concerned About Soil Erosion Risk

The Ontario Environmental Commissioner 2008/2009 Annual Report identified the risk of soil loss from water erosion as an environmental concern. Referencing Agriculture & Agri-Food Canada 2001 environmental indicators for Ontario cropland water erosion risk, 44% of crop land was at risk of losing more than 6 tonnes/hectare (2.4 tonnes/ac) of soil per year. This rate of soil loss is above the tolerable level, where the rate of soil loss equals the rate of soil created.

This report serves to remind us that we must continue our efforts to prevent soil erosion. The commissioner credits the many programs aimed at reducing soil erosion over the last 20 years, but implies that more needs to be done. One of the challenges for soil conservation in Ontario is the number of cropping situations where little crop residue is left on the soil. We must continue to keep all the land protected as much as possible, especially in higher risk situations that leave the soil vulnerable to soil erosion.

## Tillage Erosion More Serious Than Wind and Water Erosion

David Lobb, Department of Soil Science, University of Manitoba, has been studying tillage erosion for almost 20 years. David states that “wind and water erosion are not the major causes of soil erosion and degradation”. Instead he declares that “tillage is the major cause of erosion in many landscapes.”

Tillage erosion is the net redistribution of soil resulting from the variability in soil translocation by tillage. Fields with many short, steep slopes are most sensitive to tillage erosion. The amount of soil moved is determined by the type of implement, number of passes, depth and speed, tractor match to the implement, operator behavior, and the field slope. Intensive tillage (frequent, deep, fast) can cause severe tillage erosion. Tillage erosion results in severe soil loss (20 – 100t/ha/yr) on large areas (15 – 30%) of cultivated fields. Tillage erosion causes more soil redistribution within some fields than wind or water erosion. Tillage erosion is a major delivery mechanism for water erosion, delivering soil to convergent areas of a field where overland flow concentrates. Exposed subsoil is highly erodible to wind and water erosion.

All tillage operations that disturb and move soil can cause significant tillage erosion. Along with the moldboard plow, this includes the chisel, offset disk, cultivators and harvest equipment that moves soil. The Best Management Practices for reducing tillage erosion are pretty straight forward. Reducing the amount of tillage is key. Reduce the depth and speed of the implement. Use implements that do not move very much soil. If you have to do significant tillage, as much as possible try to move the soil up the slope instead of down. For more information see the Best Management Practices booklet Soil Management.

### St Clair Region Soil & Crop Improvement Association Projects

The 3 year “Improving Yield of Second Year Soybeans” project is complete. The objective was to determine the value of planting a rye or winter wheat cover crop in multiple years of soybeans. The cover crop was planted immediately following soybean harvest and killed just prior to soybean planting. A late harvest or an early start to winter made it difficult to achieve much growth in the fall, but it usually caught up in the spring. Killing the rye in the spring was not a problem. There was a 2 bu/ac yield advantage for the rye, but none for the winter wheat. The residue from the cover crop may conserve moisture and improve yields on sandy loam soils. One year of University of Guelph research showed a 5 bu/ac yield increase. On one site, the rye reduced soybean cyst nematode levels compared to no cover crop. This is consistent with research by Agriculture and Agri-Food Canada. The cost of seed

and no-till planting of the cover crop is about \$25 per acre. The cover crop can provide other soil benefits, such as erosion protection, improved soil structure and some organic matter addition.

The first year of the “Evaluating the Economic Benefits of Corn Hybrid Traits” project is complete. The purpose is to evaluate corn hybrids with and without one or more traits for yield, economic return, and other agronomic characteristics. Country Farm CF 870 (no traits) was compared to CF 870 YGCB (European corn borer (ECB)) and CF870VT3 (ECB, Roundup Ready (RR), corn rootworm (CRW)). Dekalb DKC52-62 (RR) was compared to DKC52-63 (RR, ECB) and DKC52-59 (RR, ECB, CRW). The Country Farm hybrids with the traits did not yield any more than the hybrid without traits. The Dekalb hybrids with the Bt traits did not yield more than the hybrid with just the RR trait. The extra cost of \$16 and \$40 per acre for the traits was not recovered.

Summaries of these projects can be found in Crop Advances – Field Crop Reports at [www.ontariosoilcrop.org](http://www.ontariosoilcrop.org).

## Cooperators Needed To Evaluate the Cornell Soil Health Assessment!

The OMAFRA soil management specialists are evaluating the Cornell Soil Health Assessment. The Assessment scores a number of indicators of soil health, including nutrient levels, organic matter level, active carbon (the part of the organic matter that is readily available for the microbial community), root health, soil compaction, potentially mineralizable nitrogen, aggregate stability, and available water capacity. In 2009, over 200 samples were taken from long term tillage and rotation research plots. Samples from a wide range of soil types and management systems are targeted in 2010. Soil samples will be taken in the spring or early summer. Cooperators will supply some management history for the field and will receive the results. If you are interested in having your field sampled or want more information contact Adam Hayes (519) 674-1621 or [adam.hayes@ontario.ca](mailto:adam.hayes@ontario.ca).

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## Anthracnose – An Ever Present Danger in Edible Beans

by Brian Hall, Edible Bean & Canola Specialist, OMAFRA

Cool, wet conditions in 2009 were ideal for white mould and anthracnose in edible beans. Low levels of anthracnose infected white bean seed has caused increased problems for processors the past couple of years. In 2009, the disease tended to occur later in the season, and did not cause as much discoloured seed. Anthracnose can cause serious quality and yield losses.

cost for growers through:

- ♦ loss in weight of delivered beans from ‘pick’ beans, and
- ♦ the added charge to remove these blemished beans.

Some processors in the United Kingdom use a clear sauce on canned product, so blemishes are not as easily masked as with a traditional tomato sauce. It is important for growers to treat edible beans more like a fresh market vegetable crop, where appearance is critical.

## Resistant Varieties

Control of anthracnose begins with resistant varieties. Unfortunately there is only one white bean variety, T9903 (an early season variety from Hyland) that carries resistance to the most commonly found race of anthracnose, Race 73. Breeders need to place more emphasis on varieties with resistance to newer races of anthracnose.

## Certified, Treated Seed

Growers should start with certified treated seed because the disease can be seed borne. Seed treatments help control early season anthracnose, but are not the only solution. Only one generation of certified white bean seed is typically produced in Ontario because our humid climate increases susceptibility to the seed borne diseases of bacterial blight and anthracnose. The seed industry has been more aggressive the past few years in seed field inspection and application of protectant foliar fungicides. This has immensely helped to reduce the seed borne source, but cannot eliminate the risk completely. Imported seed typically comes from Idaho, Montana and other dry land areas, where anthracnose is not an issue. However, this imported seed costs more and the seed tends to have lower seed moisture, so growers need to be careful in seed handling. Lower moisture seed has been shown to take 1-3 days longer to emerge.

## Limit Field Entry

It is important to limit entry into fields during the growing season. Research at the University of Guelph, Ridgetown, has shown that spores of the disease can be easily spread in a field by machinery, pant legs, animals or running water. Spores are heavy, so windborne spread is limited, unlike white mould spores.

## Scouting & Foliar Fungicides

Growers also need to be vigilant about learning how to scout for the disease. It is easy to misdiagnose the early signs of leaf vein and stem infection as group II herbicide injury or physical plant injury. We also now have a rapid laboratory test that can quickly confirm the presence of the disease. Scouting and effective registered foliar fungicides are critical tool for growers. Refer to OMAFRA Publication 812, “Field Crop Protection Guide”. However

fungicides cannot be expected to provide 100% control, so growers need to rely on a multiple approach.

## Cereals A Tough Sell ... Again! Cereals have slid back to a rotation crop ... but have another look!

by Peter Johnson, Cereal Specialist, OMAFRA

It was a short bask in the sun. For a couple of years, I could actually talk about growing cereals for as much profit as corn or soybeans. With the world awash in wheat, and corn yields increasing dramatically, it's back to the drudgery of selling cereals on "rotation benefit". Hang on! There might be more to making money out of cereals than that! So what can you do that would make spring cereals worthwhile?

### Seeding Date

There is no factor more important than getting cereals planted on time. Whether frost seeding piques your interest or not, the fact remains that you lose a bushel per acre per day for every day you delay seeding in the optimum window. Anything you can do to get the cereals planted earlier counts, even simple things like having the drill tuned up and ready to hit the fields now.

### Planting Depth

Drill technology is inherently poor for controlling seeding depth. However, getting the seed into moisture at the shallowest depth possible is another key to higher yields. Table 1 shows the tremendous impact of seeds being put too deep. Fine tune your seeding depth and you can add bushels to the bin!

Depth (inches)	Emergence (days)	Yield (index)
1	72% 3 days	140%
2	79% 5 days	100%
3	82% 7 days	44%

Gan Stobbe & Moes, 1992

### Starter Fertilizer

The earlier you seed, the colder the soil, so the less available the phosphorus is. Add 5 bushels to your average yield by including a high phosphorus seed-placed starter. With the corn starter research just

developed by OMAFRA Corn Specialist Greg Stewart, you may want to consider a little potash in the blend as good insurance.

### Tillage

No crop no-tills as well as cereals! Cereals can handle cold temperatures, and that is what most crops in no-till struggle with. From a long term soil health standpoint, doing less tillage and reducing tillage erosion is huge. (Refer to "Soil Erosion, Soil Health and More", by Adam Hayes.) No-till offers many options, from frost seeding, to seeding earlier, to better soil health in years to come.

### Weed Control

Spray early! Just like corn and soybeans, cereals suffer the most yield loss from early weed competition. While there isn't a lot of research in this area, the little bit that we do have indicates that any weeds at the 4- or 5-leaf stage are reducing yield. An additional yield boost will reward growers that get weed control completed by the 3-leaf stage of the crop.

### Fungicides

The data is clear. If you grow oats where crown rust is a concern, then you must spray a fungicide at flag-leaf. In our new "managed" performance trials, the yield of some spring wheat varieties was increased by 57% by the use of a fungicide. We don't have barley data yet. Spray those oats. Using the best fusarium fungicide on spring wheat for fusarium looks like it has real potential.

### Straw

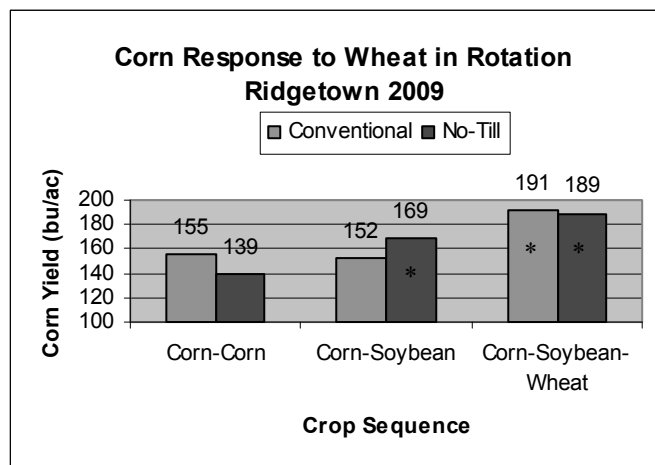
Straw can add significantly to the bottom line for some growers. It's not as easy to pick a winner as you may think. For the first time, straw yield data is now available at [www.gocereals.ca](http://www.gocereals.ca). In those trials, some varieties had 147% straw yield index. At \$90/tonne, that could add another \$150.00 to your bottom line.

### Rotation

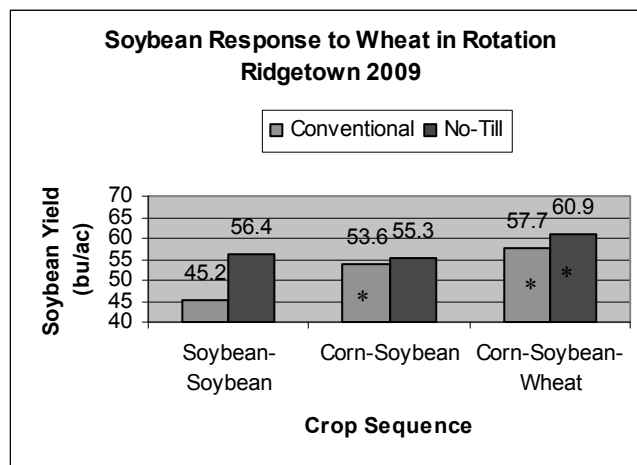
Recent research from Dr. David Hooker at the University of Guelph, Ridgetown, drives home the benefit of the wheat crop in a rotation. In 2009, on the long term rotation trials, wheat in the rotation increased corn yields by 30 bu/ac, and soybean yields by 6 bu/ac! In a tough year, the benefits of that wonderful wheat crop translated into \$125/acre more corn and beans, even with today's lower prices. Add that to your bottom line!

There, I've done it again. I've been forced to promote cereals in rotation! However, if you apply these management tips, you will find that spring cereals are not the weak link in the profit picture you thought they were. It just takes some MANAGEMENT, just like you would with corn, soybeans, or canola.





\*Statistically different from continuous corn within tillage (p=0.05)  
 All corn yields in the 120kg N/ha treatment  
 Source: Hooker et al. 2010, Long-term Tillage-Rotation Project, U of G Ridgetown/OMAFRA



\*Statistically different from continuous soybean within tillage (p=0.05)  
 Source: Hooker et al. 2010, Long-term Tillage-Rotation Project, U of G Ridgetown/OMAFRA

## What Are the Best Herbicide Programs for Identity Preserved (IP) Soybeans?

by Mike Cowbrough, Weed Specialist, OMAFRA & François Tardif and Clarence Swanton, University of Guelph

Ontario field studies have ranked herbicide treatments based on how well weeds were controlled and relative soybean yields. Over the past two years, the winner has been the low rate of Boundary applied pre-emergent followed by Reflex + Pinnacle + Assure II applied post-emergent. A number of one-pass pre-emergent treatments have been a close second. Below is a summary of the last two field seasons.

**Table 1.** Top 8 weed management programs for identity preserved soybeans based on overall weed control and yield.

Rank*	Treatment	Weed Control Efficacy (%)		Yield Index
		Grass	Broadleaf	
1	"Two-Pass" System Boundary (PRE – low rate) Reflex + Pinnacle + Assure II (POST)	99	90	0.98
2	Conquest + Valtera (PRE – low rate)	99	95	0.96
3	Broadstrike Dual Magnum (PRE)	97	83	0.95
4	Conquest (PRE – low rate)	94	81	0.92
5	Boundary (PRE - low rate)	98	86	0.90
6	Pursuit + Valtera (PRE – high rate)	95	85	0.90
7	Pursuit (PRE – high rate)	81	68	0.89
8	Cleansweep (POST)	92	80	0.85

\*Rank based on weed efficacy and soybean yield with a greater weight placed on relative soybean yield. Cost of the treatment is not factored into the overall rank.

## Uncontrolled weed species (<80% control) by herbicide:

- ♦ Barnyard grass: Pursuit (PRE – high rate)
- ♦ Lamb's-quarters (triazine resistant): Boundary (PRE – low rate)
- ♦ Pigweed species (group 2 resistant): Pursuit (PRE – high rate)
- ♦ Ragweed: Boundary (low rate), Conquest (low rate), Pursuit, Pursuit + Valtera

## Tufted Vetch Activity:

Conquest + Valtera gave the best tufted vetch suppression of all treatments tested in 2010.

**Acknowledgements:** This project is funded by the Grain Farmers of Ontario

## ESN Controlled Release Fertilizer on Corn and Spring Wheat

by Scott Banks, Emerging Crop Specialist, Kemptville OMAFRA

An Ottawa-Rideau Regional Soil & Crop Improvement Association project evaluated the economic benefits of ESN® Controlled Release Fertilizer, or Smart Nitrogen (N) use in corn and spring wheat production. ESN is a new product that uses a micro-thin polymer coating to encapsulate a nitrogen granule. This protects the N from loss to the environment and releases it based on temperature and soil moisture, theoretically when the crop needs it. This was the first year of a two year project.

## Plot Set-Up

In 2009, there were 2 corn and 2 spring wheat on-farm plots. Equivalent nitrogen rates of ESN and urea were applied at planting at:

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

The one-half grower standard rate was used to determine if ESN yielded more grain or higher protein in spring wheat under a lower available nitrogen situation. A Gandy Fertilizer Applicator was used to get accurate product rates. At harvest, plots were weighed and measured for moisture and test weights. Spring wheat samples were collected and the grain analyzed for protein.

## 2009 Results

There was no corn or spring wheat yield increase, or a difference in spring wheat protein to show a benefit using ESN. Similar spring wheat results were found in the small research plots at the Winchester Research Farm, Kemptville Campus – University of Guelph.

Table 1 - ESN in Spring Wheat, Winchester Research Farm, Kemptville Campus – University of Guelph, 2009

N - Rate (kg/ha)	Product	Average Yield (bu/ac) <sup>2</sup>	Average Protein	Average Fusarium Damage%	Average Toxin (ppm)
90	Urea + Growth Regulator (GR)	58.5b	14.7	17.5	5.9
90	ESN	58.8b	14.7	19.0	5.9
90	Urea	62.3b	14.3	16.3	5.9
90	50% ESN: 50% Urea	63.4b	14.6	17.6	5.9
135	Urea	57.7b	15.1	16.9	6.0
135	Urea + GR	62.3b	15.1	16.7	6.0
135	Urea+GR +Fungicide	61.1b	15.1	17.7	6.0

<sup>2</sup>Yields with the same letter are statistically not different

## NOAFEM selects new Board of Directors

SUDBURY – The Annual General Meeting of Northern Ontario Agri-Food Education & Marketing Inc., held at Dynamic Earth on Saturday, February 27, resulted in two new members joining the Board of Directors.

The meeting opened with a very informative presentation by Janet Parsons regarding “Agriculture in Chile.” Most of the agricultural activities take place in the central valley and almost anything can be grown. One man Janet stayed with could not understand why Canadians even tried to farm with the climate we have.

In Canada, we may get two cuts of hay, Chile gets up to 8. The blueberry industry in Chile has grown so much that it has damaged British Columbia’s presence in the market, dropping the price.



Above is one of the pictures Janet included in her presentation. She pointed out that agri-tourism continues to grow and agriculture is very well promoted, even in the subway.

The Board of Directors for 2010 will include: Neil Tarlton, Hank Allen, Pat Marcotte, Debbie Kirby, Ken Lane, Sharon Lane and Janet Parsons and new board members Paul Schoppmann of St. Charles and Edith Orr of Johnson Township.

The 2010 Farm Fresh Directory has been sent to the printers and will be available for distribution in early April. This directory continues to be a valuable source of information regarding farm gate sales and farmers’ markets.

Northern Ontario Agri-Food Education & Marketing Inc.’s Boreal Harvest: Art and Farm Tours brochure is in the final stages of preparation before going to press.

## NOAFEM gives local agriculture a boost



In a continuing effort to support local agricultural producers, NOAFEM has commissioned six billboards to be placed in strategic locations across Northern Ontario. Below the billboard is a website address, [producedinthenorth.org](http://producedinthenorth.org), which will lead to NOAFEM’s website and a wealth of information including sources for locally produced products.

In a round table format at the Annual General Meeting, a discussion took place regarding “How we can better support and meet the needs of the ‘Support Local Agriculture concept. This discussion included suggestions to produce product labels, signage and bags that would connect the billboard design to the producers’ farm businesses and farmers’ markets.

The board approved the concept of a Northern Ontario Recipe Development competition for Northern Ontario College students registered in a Culinary Arts / Chef Training program. Watch for further details.

### Upcoming Events

Visit Northern Ontario Agri-Food Education & Marketing Inc. Easter at Science North, at the **Farm and Trade Show** in Earlton; **Earth Day** in Sudbury; **Agricultural Display** at Station Mall, Sault Ste. Marie April 16 and 17; and **Powassan Maple Syrup Festival** April 24 and 25.

## AGM of the Algoma Soil & Crop Improvement Association

continued from page 5

than Quebec's. Ontario gets double the amount of sap per tap as Quebec. Most people in Ontario use vacuum pumps. Ontario has no quota per producer. If producers do not want to refine the sap, they can sell it to those who do and the price is based on sugar content.

Harold Stewart, president of ASCIA, thanked Ches for his witty and informative presentation.

The Awards of Merit at the 2010 AGM were given to Ron Trivers and Larry Ritchie. Will Samis introduced the first recipient. Ron, whose father Len was the first president of the Algoma Soil & Crop Improvement Association and mother Mary was inducted into the Agricultural Hall of Fame, returned to Algoma in 1977 to farm at Iron Bridge after obtaining a degree in agriculture from MacDonald College at McGill and teaching for a number of years. Many will remember Trivers' corn from his farm that he tile drained and limed with 500 tons of lime. While farming, Ron taught environmental science in Sault Ste. Marie, became a member of the Algoma Cattlemen, the Algoma Community Pasture Association and helped resurrect the Algoma Soil and Crop Improvement Association of which he was president for three years.

Ron in his acceptance speech said that he owed a lot to his parents who set a good example in their community service. Ron mentioned that his success in

farming was a team effort with his wife Lynda, son Brad and daughter Christine. He honoured past members and workers of the Soil and Crop Association. In 1999, there were six members and today, there are 80.

Sandy Ross introduced Larry Ritchie of Peel County, a former Agricultural Representative for Algoma from 1984 to 1988. His style of "Town Hall" meetings and his enthusiasm encouraged Algoma farmers. According to Sandy, many Algoma farmers feel that his time here was the "golden years" of agriculture in Algoma.

Larry, in response to Sandy's introduction, said that he had a long history with the Trivers family, as he and Colin Trivers, Ron's brother, were classmates at Kemptville Agricultural College. Of his 30-year career, he said that the highlight was the four years that he spent in Algoma.

Mike Cowbrough, Weed Management Field Crops Program Lead out of the Guelph OMAFRA office, was the next speaker. According to Mike, to manage a weed, the weed has to be identified and then some method of managing it must be found. If a farmer has a plant that he can't identify, he can go to [m.weedinfo.ca](http://m.weedinfo.ca). He can then put in a word that most identifies the plant. For example, for a plant that creeps along the ground, "creeper" could be used. Golden creeper (*Thladiatha dubia*) comes up. According

to Mike, a picture could also be submitted. The website after identifying the plant gives ways to manage it. One of the problem plants the members gave is tansy, which is persistent, has a good root system but limited seed production. A non-chemical solution might be to cut off the top growth and a chemical one, would be to spray when in full bloom. If people are having trouble with spring cereal crops (corn or wheat), Mike recommended the

website [m.weedpro75.com](http://m.weedpro75.com) which will select a herbicide for that weed. Steps at this site are select a crop, select a weed and the website will give the herbicide. Mike reminded farmers that some problem plants can be controlled by the correct pH and drainage of the soil. Examples of these are horsetail and buttercups.

Mack Emiry, Regional Director for OSCIA, gave his report. There are grants available for test plots for bedstraw control in Algoma and Temiskaming. Ten or so farmers are need to calculate carbon saving using the greenhouse carbon gas calculator. Mack informed the group of the following resolutions from NEOSCIA to OSCIA:

**Resolution 1.** Request to the MNR for a Sandhill Crane (*Grus canadensis*) huntingseason because of crop damage and the increase in population.

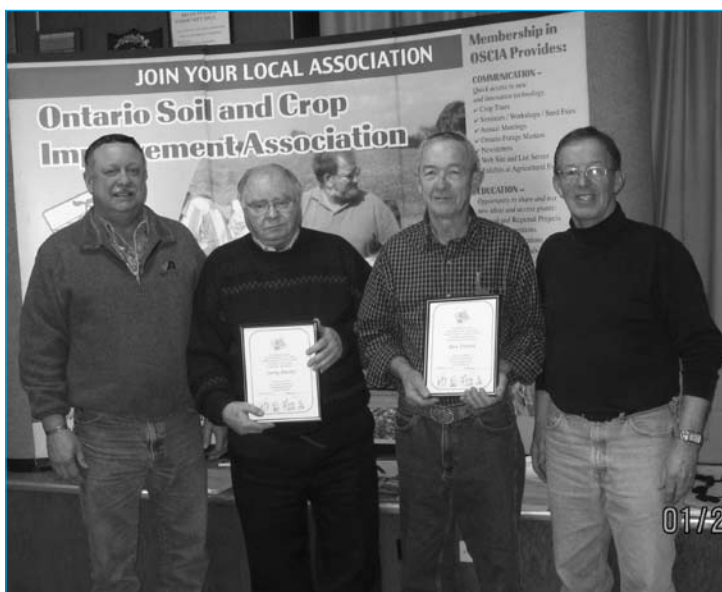
**Resolution 2.** Request the Ontario government to expand funding to the Ontario farmers for Farm Environmental Funding because farmers need and want to protect the environment but lack the finances to do so.

**Resolution 3.** Encourage the government of Canada to have policies to discourage non-indigenous plants by having goods imported under the same rules and regulations as those grown here.

Dave Trivers mentioned that the MNR Stewardship program under Tracey Cooke has several projects planned: a Green Expo on July 23 and 24 that will feature local food; Species at Risk project; the Blue Algae problem at Desbarats and Bright lakes as to the source and solution; and preparing a Sault Ste. Marie and area food guide.

Ross MacLeod from the Sault Ste. Marie Innovation Centre reported that they are looking at using the solid waste from St. Mary's Paper in soil. Hemp and flax trials will continue.

The meeting closed with the election of directors: Les Hillstom and Pat Taylor as directors for ASCIA; Paul Hillstom, director to NEOSCIA; Ray Prestedge to OSCIA; and Les Hillstom, Vet Committee.



Sandy Ross, area farmer; Recipient s of Award Larry Ritchie, former Ag. Rep. & Ron Trivers, retired Algoma farmer; Will Samis, member of ASCIA

# AGM of the Algoma Community Pasture

by Sharon Lane, Regional Correspondent to Breaking Ground

Will Samis called the Annual General Meeting of the Algoma Community Pasture for 2010 held Feb. 2 at the Algoma Social Services Building in Little Rapids to order.

Brian Bell from the Gore Bay OMAFRA office presented statistics he gathered on the Billings Stocker Pasture on Manitoulin Island. He collected data on weight on/off, Body Condition (BCS), frame, and main breed type for the 325 cattle grazed on 600 acres of pasture for 110 to 115

days per year from 1999 to 2006. The trends he found are as follows: steers had a higher Average Daily Gain (ADG) than heifers, frame had no affect on gain, Body Condition Structure (BCS) had no affect on gain, and British-based cattle had higher ADG than exotic breeds. Heavier weight British cattle had a higher ADG than lighter weight British cattle on this pasture. Charolais cattle had a higher ADG than other exotic breeds. The ADG was higher for a "typical" Manitoulin year than a season with 1/3 more rainfall.

Dave Lewington, national vice-president of the National Farmers Union, presented material of interest to beef farmers. At this time, round-up ready alfalfa is under study by the US Environmental Impact (EIS) to see if it has an impact on the environment. If it is deemed to have an impact, then Canada will probably follow the US lead. The European Union (EU) will not buy seed that is not organic, so Dave recommends that all seed needs to be tested.

Dave explained that according to the Animal Health Act those farmers whose animals are culled because they are suspected of carrying diseases might not be compensated. Dave mentions one other problem facing farmers is that local abattoirs are forced to close because they cannot meet the expenses that the new regulations require. In some cases, it is in

excess of \$165 000. This is dangerous for the autonomy of the small, local farmer. Larger packinghouses like Cargill will have more control over the supply and price. The National Farmers Union is pushing to have "captive supplies" banned in Canada and the U.S.

Ron Bonnett, first vice-president of the Canadian Federation of Agriculture, spoke to the need for the beef industry to have both a domestic and an export market. He said that the CFA tries to bring all the players – producers, packers, and buyers- to the table for discussion. Competitiveness makes sure that regulations don't put Canada at a disadvantage. In Canada, we have packaging regulations whereas in Europe there are none.

He mentioned that when there is a banned put on Canadian products, it takes too long for a response team to be put in place because there are too many departments for us to respond quickly.

According to Ron, for the domestic market, Canada needs a "grown-in Canada" label and then marketing for this product.

CFA looks at the issues and solutions with broad-based support and works towards a consensus with the cattlemen and the packers.

Will Samis wondered if there would be any farmers in the future since 60% of

*continued on page 22*



Will Samis, president of Algoma Community Pasture, presenting guest speaker, Max Burt, of Manitoulin with a token of appreciation.



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### Janet Parsons, President of NEOSCA, Presentation on Chile at AGM of NOAFEM in Sudbury

by Sharon Lane, Regional Correspondent to Breaking Ground



Janet with globe, Chilean wine, & products from Chile.

Janet Parsons and her husband, John, spent November of 2009 in South America visiting Chile, Argentina and Uruguay. They flew into Santiago, the largest city in Chile. Chile is approximately 4300 miles long but only 150 wide. It borders on Peru, Bolivia and Argentina. Its fertile land is a central plain between the coastal mountains and the Andes. It is predominately an agricultural country. Travelling about the country on buses is easy.

Pedro de Valdivia conquered Chile for Spain in 1541 and, thus, Spanish is the language used. English is limited. Chilean villages and cities are modelled after the Spanish idea of town squares where the main buildings are around a square. The square is more or less "green space" where the people congregate. In some of the town squares, people have put buggies or carts made from bicycle parts for the children to ride on. The siesta is still observed, but the shops are open late into the evening.

The Canada dollar is worth about 500 Chilean pesos. The Parsons found it very difficult to get used to the large amount of money that things cost in pesos.

Because the Chileans have four growing seasons, the attitude that they can do it tomorrow is prevalent and is a drawback to

progress.

Some of the tempting food and drinks that the Parsons tried were complete Italian (hot dog with the "works") fish soup, beef with potatoes, fresh vegetables and fruits, a cheap wine with vanilla ice cream, pisco sours (pisco, lemon or lime juice, egg whites, syrup and bitters) and Chilean wine.

Janet noticed that city subways often had mural promoting agriculture. Chileans are very proud of their agriculture. They have fairs and expositions just as we do with snack foods, kid's games and often showcase their indigenous people as we do our aboriginals.

Agrotourism is being promoted, especially in the wine industry. A four-hour tour that visits four restaurants cost about \$100. Ten to fifteen vintners will cooperate and arrange to have four wineries available for each tour.

Recently, many foreigners are coming in to buy up the land and develop industries. Dole has set up fruit canning plants. Many farmers have converted from grain crops to grapes, blueberries and peaches for export, and farmers now have to import grain. Janet noted that Chile's dairy industry is not as developed as Uruguay's as farmers seem to be using milking machines but the milk goes into a milk can instead of a central stainless steel tank.

There is a great deal of inequality in wages especially after the military dictatorship of Pinochet. A manager might earn a hundred times more wages than a secretary might.

The Parsons also visited the UNESCO World Heritage Site of Valparaiso and Mendoza, Argentina, the wine area that produces 80% of Argentina's wine.

Janet had many interesting pictures during her presentation of her trip to South America. Janet told us that according to The Lonely Planet, Chile and Uruguay were the safest South American countries to visit. Janet showed many interesting pictures of her South American holiday and some of the products that Canadians can get from Chile.

## AGM of the Algoma Community Pasture

continued from page 22

beef farmers under 35 have quit. Ron Bonnett replied that there would be if they take advantage of modern technology. Dave Lewington wasn't so sure. He thinks that the farmer is getting tired of losing money each year. However, there are some small operators who are specializing in organic or speciality crops.

Brian Bell introduced the guest speaker for the evening, Max Burt. The Burt Farm run by Joanna and Max raises turkeys, pigs and cattle; produces maple syrup and makes sausage, pepperoni and jerky. Max thinks the government is doing a great job of convincing people to "eat local" but has "down-loaded" the cost for all the new testing on the farmer. The farmer has to buy equipment to constantly test his produce even if all his products have tested negatively for pathogens when tested by the government departments. Max's philosophy on farming can be summed-up as a healthy farm is self-sufficient. To prove this theory, he has even produce bio-diesel fuel from fat from his butchered cattle to run his tractor. He feels that farmers can't always talk about economics. Will Samis thanked Max for his frank, interesting talk of his farming practices.

The meeting proceeded with the treasurer's financial statement. Dave Wolgemuth reported that in 2009, 162 cattle were pasture for 117 days and gained 160 lbs. per acre. No fertilizer is added to the pasture. Six cattle were treated for pink eye and foot rot.

Two new directors, Colin Trivers and Dennis Kirby, were selected for a three-year term. In new business, a motion was entertained for the directors to investigate the government's Incentive Plan for Alternative Energy possibly placing a roof over the work area and placing solar panels on it to generate power.

The Algoma Community Pasture members would like to thank Algoma District Social Services for its generous use of its build for their annual meeting.

# Muskoka Lime Trial Project

*Muskoka SCIA Major Project (Interim Report)*

**Purpose:**

The objectives of the trial were to examine

1) whether higher than recommended rates could maintain target soil pH levels longer; 2) effects of levels of lime on soil nutrients, organic matter, crop yields and quality and; 3) effects of applying limestone at lower than recommended rates. This document reports the results after 5 years. The trial will continue for another 2 years to determine long term effects.

Across most of the Laurentian Shield, and particularly in Muskoka, agricultural soils are acidic and must be limed on a regular basis to achieve optimum crop growth and yields. While recommended lime rates have been generally effective in raising the soil pH to target levels, farmers have found that the effect of lime is short-lived, and repeat applications are needed after a few years. Others were concerned that recommended rates were too high and wished to test the effectiveness of lower rates.

A long term trial was set up in 2005 in which different time rates were applied in replicated trials on 6 farms in Muskoka. A Major Grant in 2005 funded part of the costs for limestone, trucking and soil analyses, with all Grant funds accounted for in the 2006 report to OSCIA. Initial results are found in Crop Advances: Field Project Reports, Vol 2, Feb 2006. OMAFRA/OSCIA. Pp 105-107

**Methods:**

Farmers' field plots ranged from 0.2 to 1ha. A baseline soil test was made in 2005 before lime was applied. Samples were analyzed at Agri-food Laboratories, using a Basic III set of tests before lime was applied, and again in 2009, with Basic I test in the other years.

**Table 1. Initial status of sites in Muskoka Lime Trail - 2005**

Site	Farm	Soil Texture	Prior Lime (yrs.)	pH	CEC MEQ /100g	Lime Recommended t/ha
1	Springfield	sandy loam	5	6.3	8	3
2	Brooklands	Sandy loam	10+	6.3	9	4
3	Mallard	Sandy	12	5.6	9.5 (37?)	6
4	Grenville	Silt-loam	Hor. lime at seeding	5.9	17	7
5	Pearcey	Clay-sandy	none	5.8	20	7
6	Quinton	Clay -loam	none	5.3	22.2	15

Four farmers applied lime at recommended, 1.5 times and 2 times recommended rates. Two farmers applied lime at lower than recommended rates, ranging from 15% to 100% of recommended lime.

Although, for ethical reasons, farmers were not asked to include a zero lime control, two farmers did include a zero control in their trials. Calcitic limestone with an Ag index of 70 was applied in fall 2005 or spring 2006 at all sites, using lime spreaders (3 sites) or with the lime evenly placed over manure in manure spreaders (3 sites). Lime was immediately incorporated using discs at all sites.

**Effect of Lime on Yield and Quality**

Yield was assessed by visual comparison and counting bales of hay from each plot. Final yield figures from some sites are not yet available. At Brooklands farm a large reduction in strawberry yield and quality was noted visually on the unlimed plot in 2009, when pH had dropped to 5.8. The yields of square bales of hay from Springfield farms are shown in figure 15.

While increased yields in each successive year are found, this effect may be due to favourable weather in later years, rather than to the application of lime.

**Summary:**

Soil test lime recommendation best at all sites, except site 6 (clay with high CEC), where lower rates (50-75% of recommended) are best. Recommended rate can maintain target pH for at least 4 years (at 5 of the 6 sites). Higher than recommended rates resulted in excessive Ca saturation, possibly displacing other soil nutrients. Marginally reduced nutrient levels with lime were found at the sandy soil (low CEC) site. Dolomitic lime with higher Mg content would be more effective to correct both low soil pH and low Mg. Alternative soil amendments, manure or fertilizer may be needed to improve available nutrients. As locally produced wood ash is available in Muskoka, the use of wood ash to correct both soil pH and low nutrient levels should be explored. A final soil test, to be taken 6 years after liming is planned, to examine long term liming effects on Muskoka soils. I funds permit tissue tests for micro-nutrients changes will be included.

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**Project Contacts:**

K. W. Riley, Muskoka Soil and Crop Improvement Association. <http://www.muskokafarmfresh.com>

A complete report can be found at <http://www.ontariosoilcrop.org/cropadvances.htm>

# THE MICROFIT PROGRAM

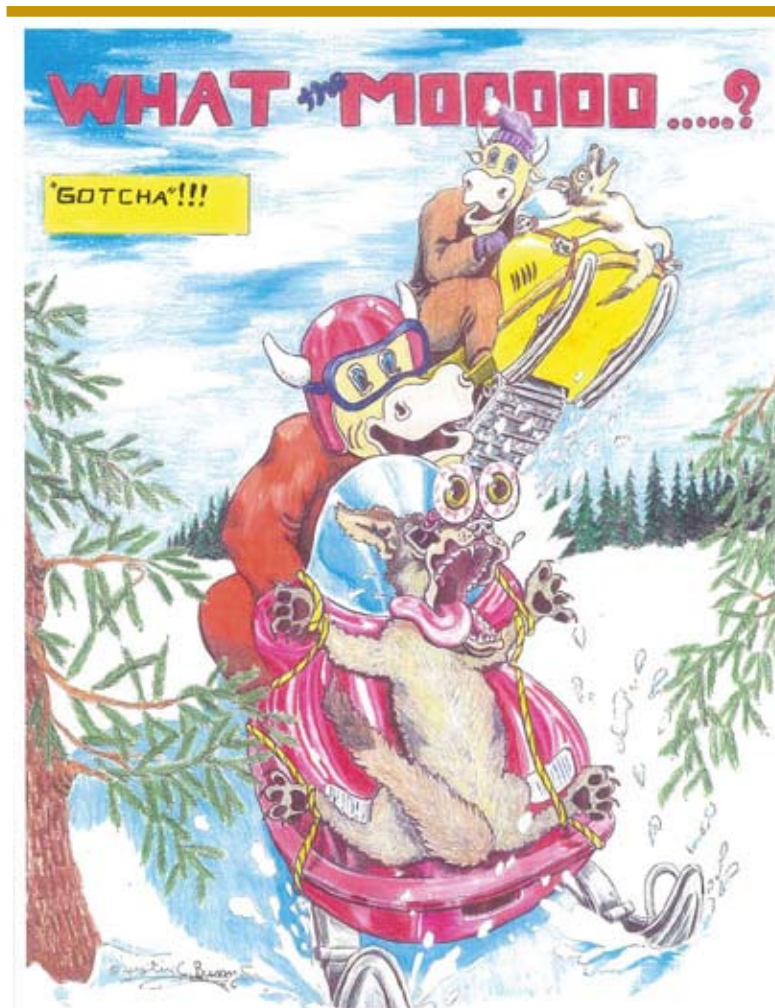
On October 1, 2009, Ontario Power Authority (OPA) announced their Ontario microFIT green energy program; micro meaning a 10 kilowatt system or less, and FIT standing for 'Feed in Tariff'. This new green energy program has the potential to be extremely beneficial for any farmer, home owner, or small business owner. Why you may ask? The microFIT programs, allows a home owner to place their own environmental energy project on their property to feed directly into the Ontario grid. In doing so one is not only helping the environment by producing green energy, but more importantly, one will be making extra earnings. With this project, any land owner, with an electricity meter on their property, can sign a twenty year, fixed contract, with OPA to receive 80.2 cents a kilowatt; this works out to be anywhere between \$10 000-\$17 000 extra earnings a year, depending on your location and energy project.

One of the more popular choices of microFIT energy projects is installing solar panels. Solar panels have the potential to be placed on roofs, pastures, backyards, or where ever sun light is able to come in contact with the panel. Keep in mind during the winter, the panels do not produce as much electricity, but the rest of the year makes them extremely worth while.

In addition, solar panels are very expensive to purchase, however, there are more expensive green energy projects to dive into, for example wind turbines. Thus, one is looking at a six year period of time before the solar panel is completely paid off; this estimate is coming from the direct profits made from the solar panel system. However, there is another fourteen years to turn an additional income.

The main push for OPA's energy project is to develop new jobs and increase the economy within Ontario and on larger scale Canada. It is very important to note that Ontario uses more electricity per capita then anywhere else in the world. Therefore, to be able to reap the benefits of microFIT program, forty per cent of the entire solar panel system must be made in Ontario; this number will increase to sixty per cent within the next year.

When looking for the perfect solar panel system and installation process, look for warranties, and clearly, the longer the warranty, the better off you are. In addition, only one 10 kilowatt system is allowed per civic address. If you are interested in taking on your own, solar panel, energy project adventure, first thing is first, get yourself into the 'Q' by going to <http://microfit.powerauthority.on.ca/sign-up-pre.php>.



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