Breaking Ground
(in Northeastern Ontario) SPRING 2006

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

Temiskaming District will Host 2009 International Plowing Match

The District of Temiskaming is gearing up to host the 2009 International Plowing Match and Rural Expo. The chosen site is Rivadale Farms, owned by Frank & Yolande Rivard. Frank and his sons Eric and Alec are dairy farmers, milking 130 cows and cropping 1000 acres on their farm just outside the village of Earlton. The fertile fields of the Rivadale farms will be converted to a tented city, RV park and Plowing competition for five days in September 2009. The "match" will showcase agriculture in the Temiskaming district and the northeast region to thousands of visitors from throughout North America.

In May 2006 local agricultural leaders and the Temiskaming Plowing Match Executive hosted a delegation from the Ontario Plowmen's Association for a two day visit. Two meetings were held in the Temiskaming Shores area, one for the stakeholders and funding partners and a second meeting for the community to come out and see what the plowing match is all about. Possible sites for the match were chosen and the Ontario

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RIVADALE FARMS

Rivadale Farms located on the north-east corner of Earlton is ideally situated for access to the Plowing Match. It is only 1 km from "downtown" Earlton, is bordered by the Ontario Northland Rail system (direct daily access to Toronto), and is bordered on 2 sides by Highway #11. In addation, Earlton Airport, a fully functional operation that can handle a small jet aircraft is only 2 kms away. This may be the most accessible plowing match to be held in the history of this event!

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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Coming Events

1. There are no scheduled Environmental Farm Plan meetings over the summer. Fall & Winter schedules will be announced here in September. Call your district EFP Rep. for personal service ANYTIME.

2. Nipissing Crop Tour - Wednesday, July 19/06

   Starts at 11:30 am at "TransCanada Restaurant" at Verner with an educational program by Len Davies on farm risk management.

   At 1:00 pm, board the bus for the Verner Test Plots.

   At 2:00 pm, meet at the Maurice Beaudry farm to examine his biodiesal project and flax field.

   Continue the tour until 4 pm when the bus returns to Verner.

   Contact OMAFRA or Gerald Beaudry at 594-9149 for more information.

3. "Summer Calving - Why It Works" a production workshop with Nancy Noecker and Tom Hamilton (OMAFRA Cow-Calf Specialists) Thursday, July 20, at New Liskeard Agricultural Station Beef Barn.

   "Make the cows work for you, rather than you working for the cows! Learn about the health and management benefits of calving during the natural cycle of the beef cow. Research at NLARS shows that calves weigh on average 6 lbs. less at birth during the summer than the winter. That means easier calving, less expensive feed, and more overall income for the farm operation!"

   For more information and to RSVP, contact Barry Potter at OMAFRA 1- 800-461-6132.

4. Temiskaming will host a summer farm tour on July 20/06, starting at 6:00 pm at the Temiskaming Ag. Centre with BBQ hamburgers, hotdogs and refreshments and a talk by Len Davies on farm financial/risk management. The meal will be followed with a bus tour at 7:00 pm until dark. This event is organized by Temiskaming Crops Coalation.

5. What is a diagnostic day you ask? Explore interesting hands-on diagnostics with other producers and agribusiness people. Come and brush-up on your troubleshooting skills, know what to look for and when to be looking. Understand what happened this spring.

   Southwest Diagnostic Days
   Ridgetown College,
   July 5th & 6th

   FarmSmart
   Farming Systems Expo
   Elora Research Station, July 12th,
   Rural Youth/4-H Day - July 13th.

   Eastern Ontario
   Crop Diagnostic Day
   Winchester Research Farm,
   Kemptville College, July 18th

   For information on these events call the OMAFRA Agriculture Information Contact Centre at 1-877-424-1300, or check the website:
   http://www.omafra.gov.on.ca/english/crops/conferences/

Environmental Farm Plan Representatives

Algoma:
Jonathan Stewart
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Clare Venne
705 **594-9194**

Ag show plows up crowds

By Diane Johnston, Temiskaming Speaker reporter

Like many 40-year olds, the North Eastern Ontario Agricultural Conference and Trade Show opted for a slight makeover.

The annual showcase of farming info and technology, held March 31 and April 1 at the New Liskeard research station's riding arena, tried a few new strategies in an effort to lift its appeal.

About 1,100 visitors paid to take in this year's fortieth annual event.

They saw the latest in farm equipment from dealers both inside and beyond the region. Suppliers of goods and services to the farming and non-farming community were also on hand to make new business contacts.

Meanwhile, visitors could also take in conference sessions on beef and forage research, the Opasatika mushroom farm, successful farm succession, and healthy rural lifestyles.

To make it easier for parents to drop by, supervised children's activities were offered for a three-hour period on March 31 and were attended at one point by some 60 children.

More advertising dollars were spent to promote the event in near-by northwestern Quebec, and conference speakers offered French-language presentations that drew two dozen on March 31.

And a dozen vendors focusing on lifestyles – hobbies, art, home decorating, and health and wellness – were also on site in an effort to attract a non-farming crowd.

"I've had two more people who would be eligible asking if they could be in it for next year," said Graham Gambles, regional communications coordinator with the North Eastern Ontario Soil and Crop Improvement Association (NEOSCIA), one of the event's organizers.

The NEOSCIA conducted a survey of visitors to determine the event's current audience.

Of the approximately 700 adults who completed a survey, three-quarters came from within Temiskaming.

Almost 40 per cent were considered to be from urban areas in Temiskaming Shores and Cobalt, while a quarter were from the rural area surrounding Temiskaming Shores and Belle Vallée. (The urban component would have included farmers with postal boxes in Temiskaming Shores.)

About eight per cent of the survey-completing visitors came from Quebec, mainly from neighbouring Témiscamingue.

Six per cent travelled from Cochrane, while about five per cent came from Sudbury.

Nipissing, Parry Sound, Algoma, Manitoulin, Muskoka and southern Ontario accounted for about five per cent overall.

Mr. Gambles said it'll take at least a second year to gauge if the changes in the event's format lead to a higher turnout.

But he said the feedback he's received to date has been positive.

He would like to see a higher turnout al the NEOSCIA annual luncheon, at which two farmers – Ron Bailey of Thornloe and Stephen Mailloux of Walford – received awards of merit in recognition of their contribution to the region's agricultural community. Only about 40 people attended this year's luncheon, held in the arena's upstairs mezzanine.

Planning has begun for the 2007 event.

Mr. Gambles said required improvements to the site's electrical system are already underway.

This year's event was also helped by a grant of up to $9,400 from the Northern Ontario Heritage Fund.

Thanks!

Our appreciation goes out to Dave Armstrong, President/ Publisher of the "Temiskaming Speaker" for his permission to recycle the excellent work of agricultural reporter, Diane Johnston in this Bulletin for the benefit of all northern farmers!

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Nipissing/Parry Sound/ Muskoka SCIA News

by Janet Parsons, Director

The West Nipissing Seed Fair and Conference held in March at the Verner arena was a big success again this year with Steve Roberge the overall champion showman in the seed fair. Clement Rainville won the award for champion forage. Special thanks goes out to the many sponsors of prizes and awards: Leisure Farms and Coverall Buildings, Groulx Garage, Verner Ag Center (Co-op), Brouillette Builders, Gerald Beaudry, Spectrum Feeds (Bernard Proulx), Cambrian Insurance (Gaetan Beaudry), G.J. Mechanical, Western Dream Riding Supply, R.L. Equipment, Caisse Populaire de Verner Ltee, Pioneer Seed (Murray Jantzi), Banque National, Syngenta, and Meekers Green House.

At the Northeastern Ontario Seed Fair, West Nipissing farmers once again won the Golden Pitchfork Award for most points by a local SCIA.

Hats off to Muskoka farmers, again! They have convinced the Huntsville town council to enact a Farmers Market By-law which restricts the market to 'primary producers/vendors' who produce 70% or more of the goods themselves. For more information go to http://www.town.huntsville.on.ca/town_services/documents/2006-26-FarmersMarketBy-law.pdf

Klaus Wand reports that the Parry Sound Soil and Crop sponsored a pasture walk and fencing demonstration on June 10, 2006. Jack Kyle of OMAFRA was the guest speaker. There was a discussion on pastures followed by a barbeque at noon and the fencing demonstration in the afternoon.

Preliminary talks with producers in East Nipissing and Parry Sound support the concept of an enlarged East Nipissing Parry Sound Soil and Crop Improvement Association. We'll continue to work on this….watch for developments.

The Verner test plots have been planted once again at the farm of Rene Leblanc thanks to John Rowsell, his staff, and Gerald Beaudry. Please take the time to check them out this summer.

There are a number of OSCIA farm projects under way in the district: Maurice and Hubert Beaudry are well into the major biodiesel research project. Muskoka farmers are continuing with their lime project and Graham Gambles is continuing the canola project.

In this part of northern Ontario the farming communities are quite spread out. Motorists on our highways can travel hundreds of miles without seeing one farm and then suddenly they are in a farming community with tractors and equipment sharing their space. We are in the process of asking the Ministry of Transport to erect signs (as shown in the photo) to warn motorists. In some parts of Ontario the words "ACTIVE FARMING AREA" is added below the sign.

So far the crops are looking great in this area. The West Nipissing summer tour will be in late July….watch for it. Have a safe and bountiful cropping season.

** A number of farmers are grouping together to hire a drainage contractor to install tile drains in Nipissing/Sudbury East.* Contact Jean-Guy Sequin (705 594-9058) to have your farm added to the list.

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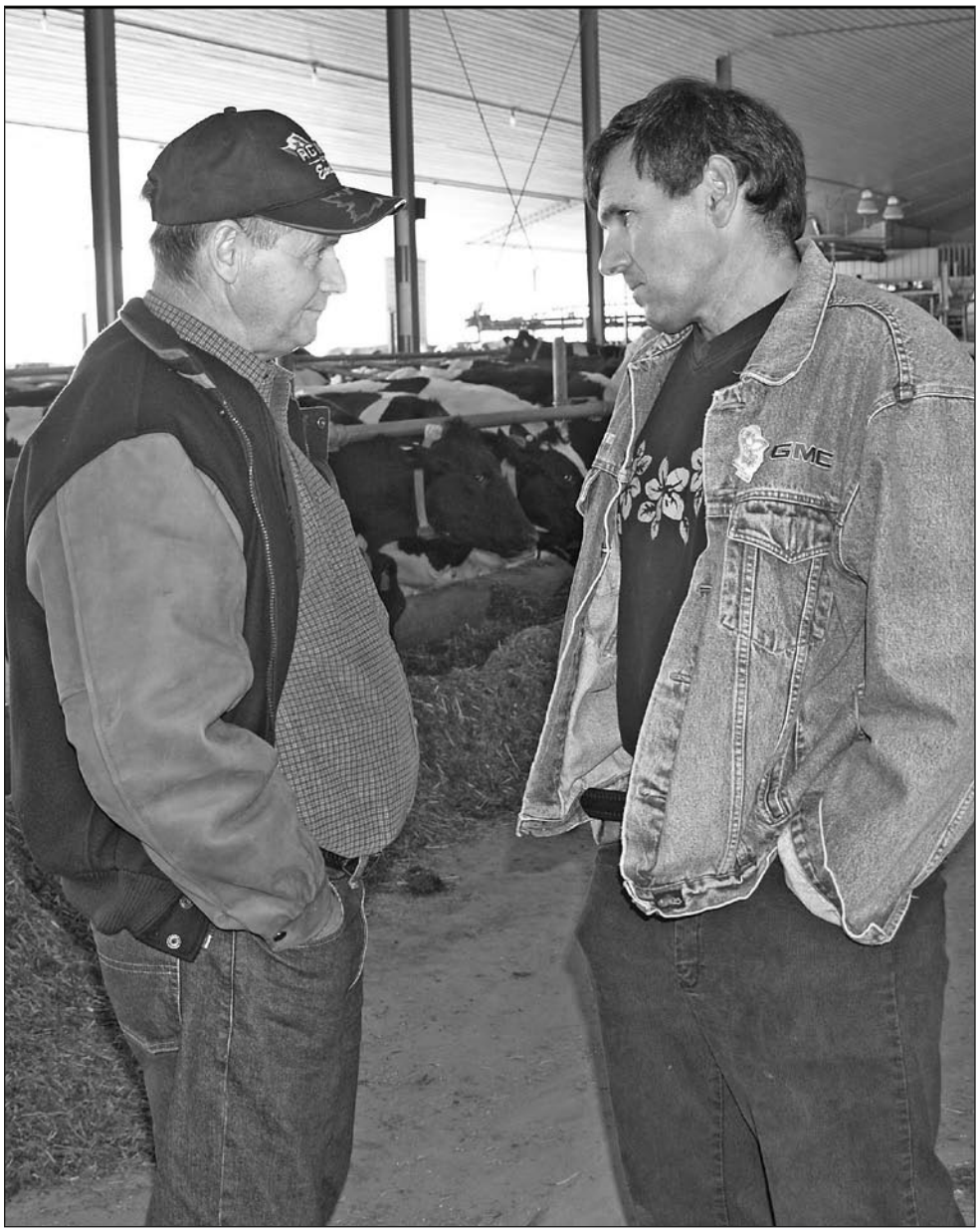

Farm Fest

François Rivard, right, discusses some of the innovations in his family dairy operation's new barn with Albert Gauthier. The new barn, completed last fall after a disastrous fire at Armstrong Township's Ferme Rivadale, features more automation and is now home to an expanded 130-head milking herd. Mr Rivard will be the HOST at the 2009 International Plowing Match in Temiskaming.
The tour was part of Journée Agricole Francophone, organized by the Groupement de Gestion Agricole du Témiskaming and involving a host of service clubs and farm organizations and agencies. (photo by Diane Johnston)

West Nipissing Soil & Crop Improvement Association

Muskoka News

The Muskoka Lime Trial funded by OSCIA Major Grant:

Six farms have now applied lime at specific rates after taking soil samples. The trial will continue for 3 years in order to see whether higher than recommended rates can be beneficial over a longer period.

Three Mile Lake (excerpts taken from minutes of last district working group meeting):

Susan Pryke (Mayor of Township of Muskoka Lakes)reported that it was her understanding that various people in the farming community were upset with the presentation given at the Soil and Crop AGM, late winter regarding nutrient sources to Three Mile Lake. It was agreed that we (the Working Group) would have a better understanding of phosphorus sources once the Ministry of the Environment completed their study. A refinement to the Muskoka model would be made at that time to more accurately reflect nutrient sources. Susan also read an e-mail from Les Snell that detailed the farm activity in the Raymond area.

Ministry of the Environment
Dorset Environmental Science Centre

Andrew Paterson outlined the study he will be heading up this summer.

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Ag returns to college program

By Diane Johnston, Temiskaming Speaker reporter

More than a decade after the closure of the New Liskeard Agricultural College, farming is back on the post-secondary curriculum in the Tri-Towns.

In September, Northern College's Haileybury campus will introduce a one-year agriculture certificate program.

Program coordinator Pat Hamilton said she'd like to see an enrolment of at least a dozen students "but certainly we could accommodate double that."

She said the course is designed with two audiences in mind – newcomers to farming related agribusiness and anyone considering getting into the field. It's also been drafted to tie into Timiskaming District Secondary School's new agritech program.

"The community came forward and said, 'we need something here,'" she said.

The Northern College course covers the basics of crop and animal production, machinery repair, health and safety, and environmental issues.

"Everybody needs information about nutrient management, risk management, machinery repair," she said.

Students will also visit local farms as part of the course and use facilities at local businesses that are partners with the college in the new endeavour, she said.

Growing the Ideal Malting Barley

By Diane Johnston, Temiskaming Speaker reporter

The search continues for a Northern malting barley that suits brewers' tastes.

New Liskeard researchers are in the second year of a project experimenting with growing techniques to produce plumper barley kernels that satisfy beer brewers' neåeds.

Temiskaming has a proven track record in growing malting barley.

But the highest yielding varieties are typically higher in protein than brewers want. Protein inhibits barley's filtration, producing a cloudier beer that takes longer to settle.

By manipulating the way in which barley is grown, the result may be bigger kernels with more starch that will in effect dilute the protein content, explained John Rowsell, researcher at the New Liskeard Agricultural Research Station.

In the quest for bigger kernels, researchers will try different seeding rates, fungicide applications and rates of nitrogen use on two-row and six-row barley varieties. But a larger kernel could also have application in the human food market.

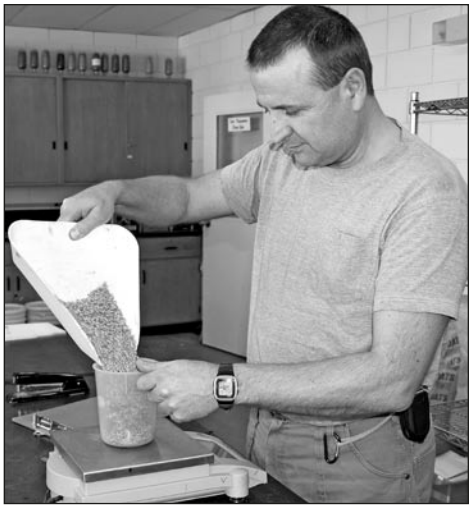
Barley, like oats, "is very heart-healthy," Mr. Rowsell said.

An Agriculture and Agri-Food Canada centre in Winnipeg is working on giving conventional food products a twist by using barley.

To capitalize on industry interest, he said, the Holy Grail in North eastern barley production would be a hulless variety.

But researchers have found that varieties that successfully shed their hulls in other regions stubbornly hold on to them in the Northeast.

The next best thing would be a larger kernel which, with hull removed, would be more attractive for commercial use, he said.



Agronomy technician John Kobler weighs barley for performance tests at the New Liskeard Agricultural Research Station. Finding a malting barley that fits both the region's growing conditions and brewers' needs has been one of the station's longer term projects. (photo by Diane Johnston)

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New post selling region's agriculture potential

By Diane Johnston, Temiskaming Speaker reporter

Selling farming opportunities in the Temiskaming area to prospective newcomers is part of the job description for a new post.

"We've seen an influx of farmers from southern Ontario and we want to increase that with a very positive campaign," said Darlene Bowen, recently named the region's agriculture projects manager.

The new job is a contract position funded by FedNor and working with the South Temiskaming Community Futures Development office in Haileybury. Her region extends beyond southern Temiskaming north to Matheson and Cochrane and south to the Powassan and Verner areas.

The farming industry in Temiskaming and the North is familiar ground for Mrs. Bowen.

A lifelong resident of the area, she currently heads the New Liskeard Agricultural Society and is a director on the Temiskaming Federation of Agriculture. She is a former chair of the Ontario Cattlemen's Association and recently stepped down as the Ontario Federation of Agriculture's member services representative in the Northeast to take up the new position.

In her new job, she'll also work with the area's agricultural organizations on specific projects.

They include a look at the possibility of an oilseed crushing plant in the area, crops-related research and development, and work with the private sector in the recycling of farm wastes.

LION'S SHARE

But the lion's share of the job, she said, will be exposing a broader audience to Northeastern Ontario's farm sector and its potential.

To that end, she's developing a presentation in conjunction with the region's agricultural groups that can be displayed at major farm-themed events in southern Ontario.

The line-up in the coming year includes stops at the International Plowing Match in Peterborough, the Ottawa Valley Farm Show, Canada's Outdoor Farm Show in Woodstock, and the Canadian International Farm Equipment Show in Toronto.

"A lot of the information that we will be using in our awareness campaign will come out of the agriculture impact study, so we'll have factual numbers to draw from," she said, referring to the wide-ranging Temiskaming study published in 2004.

But she'll also be pushing the non-farming attributes of the region. "What we're promoting is a lifestyle and a culture and the opportunity to get out of the congestion," she said.

Muskoka News

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The study will consist of three parts including:

a. A full chemistry analysis based on bi-weekly sampling for nutrients among other parameters.

b. An analysis of phosphorus sources based on a sub-watershed level. Andrew will also look at internal nutrient loading.

c. Paleo analyses to better understand the long-term history of the lake from its sediment.

Brad Allen requested that Andrew also look at the out flow of the lake to Clarke's Pond so that there is some understanding of the nutrient load flowing out of Three Mile Lake.

Town of Huntsville

Terry Sararas attended the meeting to provide the support of the Town in whatever way was needed. He recognized that a large portion of the headwater of Three Mile Lake is in Huntsville and would like to work with the group to ensure that appropriate controls are also placed on development activity in his municipality. Terry did note that Huntsville is also preparing revised site plan guidelines to address shoreline development and that the Town was looking at a Tree Conservation By-law.

Three Mile Lake Association

Cindy Watson presented the key elements of the Association's proposed Stewardship program. They have now assembled over 400 names of lake front residents and are working on an awareness campaign. They have launched a new website at 3milelake.ca and have sent out their first newsletter. The annual meeting in on June 4 and they will be looking for volunteers to help with the Dock to Dock program they are developing.

Muskoka Federation of Agriculture:

The first directors meetings of the Muskoka Federation of Agriculture (MOFA) was held on May 24, 2006. Many interesting issues were discussed. Members can look forward to the first MOFA meeting and potluck dinner in October.

Environmental Farm Plans (EFP):

30 EFP's have been completed in Muskoka and farmers have started to apply for project funding on their farms. Farmers are encouraged to complete the latest version of the EFP and access funding to implement BMP's wherever remedial action is warranted.

Find yourself a quarterback

By Len Davies

Over the last few years I have conducted a number of financial planning seminars with farm operators across Ontario. It became quite evident that the topic of most interest was succession planning. One of their biggest concerns was "getting the succession planning process started." Owning a farm and being part of the baby boom generation, I can certainly empathize with others who are trying to come to grips with this process. It's easy to put it off into the future, since we feel we still have lots of time ahead of us. But in reality, it's better to start now. So, where does one start?

Find yourself a quarterback

The first step in creating a succession plan is to find yourself a quarterback to facilitate the process. A quarterback is someone who understands the process needed to develop an effective succession plan. Your quarterback will get your process started and follow it through to make sure that the process is completed. The following are some of the duties of a good succession quarterback.

- Help the family understand his/her role as quarterback and ensure they're comfortable.
- Conduct a family meeting in a business-like fashion.
- Encourage the family to discuss all the issues on succession planning for their farm enterprise.
- Make sure the family realizes there is a difference between fair (equitable) and equal division of farm assets.
- Work with the family to determine the goals and objectives of their succession plan.
- Make sure that the family is aware of the tools available to transfer farm assets.
- Insist on open communication and ensure everyone has an equal voice in the discussions.
- Ensure the family takes into consideration all aspects of the transfer. i.e. labor, management, profitability, and possible environmental constraints.
- Either take notes or appoint someone to take notes and distribute them to everyone involved. The notes from the previous meeting should be discussed to make sure everyone understands where the process is headed.
- Keep members of the family who are not present at the meetings up-to-date on decisions. Discuss the objectives of the succession plan when all members of the family are living will avoid potential problems later.
- Help the family develop a general plan for the transfer of assets.
- Once the family feels comfortable with the planning process their team of professional advisors need to be consulted. The farm families' team may consist of their creditor, financial consultant, accountant and lawyer.

Your quarterback is only the catalyst for your plan – it's your plan not your quarterback's plan.

Finding the right quarterback is only one of many things that need to be considered in the succession planning strategy. In future newsletters I will discuss other aspects of farm business succession planning.

Getting the Most Out of Your Pastures

Algoma Community Pasture and Algoma Soil & Crop provided a presentation and Pasture Walk on May 30th with Jim Gerrish of the "American Grazing Lands Service". It was followed by a similar presentation on Manitoulin on May 31st.

Following is a summary of his presentation.

1) Build a better solar panel:

Farming is really the business of capturing solar energy and turning it into a salable product. Nowhere is this more apparent that in pasture-based agriculture. If you think of every acre you manage as a 43,560 sq ft solar panel, you easily begin to see how to improve your operation.

First think about what makes an excellent solar panel when it comes to maximizing photosynthesis. It is green growing leaves. Bare soil does not capture solar energy. Dead, brown plants do not capture solar energy. Only green, growing leaves take solar energy and make it into livestock feed. If you are using permanent perennial pasture plants, look at how much of the soil surface is covered by green leaves on any day of the year. An excellent, pasture should have at least 90% of the ground covered by green growing plants. If you are raising annual pasture crops, think about how many days the soil is left bare during the year or between crops. Timeliness of farming operations and rapid establishment orc keys to successful annual pasture crops.

Bare soil means lost production and provides opportunity for weed invasion in both permanent and annual pastures. The most common cause of thin spotty pastures is grazing too short or staying on the same pasture too long. Leaves are the photosynthetic factory of the plant. If excessive grazing removes too many leaves too frequently the plant cannot support itself and must either reduce its size or die out completely. All across the world, grass farmers lose significant production potential because they keep tearing down their factory. In most of North America I believe farmers and ranchers lose up to 50% of their production potential due to grazing too short and not providing adequate rest periods for plants to recover. Key principle is it takes grass to grow grass.

Letting pastures get over mature is another significant loss of photosynthetic efficiency. While it might seem contradictory for what appear to be two opposite trends (grazing too short vs. pastures getting out of control) to be such significant problems, the two trends often occur in the same pasture side-by-side. An individual blade of grass will only have 3 to 5 weeks of effective solar capture. Letting perennial plants continue to grow much longer than this without grazing lowers photosynthetic efficiency.

Other keys to keeping your pasture as an efficient solar panel include seeding only adapted pasture species, appropriate fertilizer management, and timely weed control. There are very few real wonder grasses. Don't expect a plant developed in a totally different climate to do well on your farm. Choose species and varieties that are proven in your environment. Take care of the fertility needs of your pasture to keep green leaves growing vigorously. Soil testing is a critical tool for pasture management. Remember weeds are opportunistic plants that invade unhealthy pastures. Take care of your pastures and weeds will not be a problem. If you do have a weed problem, deal with it promptly.

2) Harvest more of what you are already growing:

Livestock will only harvest 30 to 50% of pasture production with continuous grazing. In years with excellent growing conditions, grazing to capture the increased production. Conversely, in dry years we tend to harvest a higher percentage as animals are forced to work a little harder for adequate forage. Rotational grazing systems allow you to harvest a higher percentage of the annual forage production.

Traditional rotations using 3 to 6 pastures only give a slight increase in grazing efficiency, allowing more consistent harvest in the 50% range. As grazing periods become shorter and rest periods can be more closely managed, grazing efficiency increases. In very intensively managed systems, 80 to 90% of the annual forage production can actually be captured by the grazing animals. This is a high or higher than mechanical harvest systems, at a fraction of the cost.

Remember, high seasonal grazing efficiency does not mean grazing each pasture to a high percentage in every grazing cycle. A 90% annual harvest

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Getting the Most Out of Your Pastures

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efficiency can be accomplished without ever grazing off more than 50 % of the standing forage. The key is to leave ample residual and return to the pasture more frequently.

3) Keep pastures from getting out of control:

Aggressive spring pasture management is crucial for keeping pastures in a vigorously growing state. Almost every temperate environment experiences explosive spring growth followed by reduced summer productivity. A great deal of that spring explosion in cool season grasses producing their seed heads. If we can eliminate seed head development early, most of the photosynthetic energy going to stem and seed head production is channeled into new leaf growth.

Getting pasture early and rotating pastures rapidly are keys to successful spring pasture management. Most localities have traditional turnout times based on years of experience with continuous grazing or slow rotations. Successful graziers are usually turning livestock to pasture two to four weeds earlier that traditional turnout dates. One important key to successful spring pasture management is getting across every grazable acre in the first 40 days of the growing season. Our goal is to have livestock bite off the newly elongating seed heads before they ever reach boot stage.

4) Graze as many days of the year as possible:

Numerous studies and producer experience have shown grazing is a much cheaper way of feeding livestock than feeding harvested forages such as hay or silage. Very often we find about a one dollar difference per day in feed costs for beef cows grazing stockpiled pastures compared to bay feeding. Just adding a few weeks more grazing on the front and back side of winter can save substantial dollars.

Planning spring and summer pasture use to allow stockpiling some pastures for fall and winter grazing is key to success. If every acre is grazed too short by August, there is not opportunity to grow late season forage. The three principles already presented above are essential management strategies to ensure having forage available for winter grazing.

Good luck and Good grazing!

Farm Windmills *(Part II)*

(from a workshop by Glen Estill (Sky Generation) at FARMSMART 2006)

By Graham Gambles, NEOSCIA Regional Communication Coordinator

The "Commercial" scale system needs an even larger farm land base to operate on, and is considerably more expensive to install. However, there is a greater opportunity of producing a profit under new changes to Ontario legislation, that occurred in March 2006. The Province now offers straight contracts for electrical generation by windmills. The value of generation is 11 cents per Kwh. This will allow for a rapid payback of investment costs to the producer. Bankers are expected to be favourable to this type of power generation, and MAY offer 50 to 75 percent financing on these projects. Cost per unit will probably be in the $3,000,000 plus range. In Northern Ontario, start up funding could be attained from the "FEDNOR" and Ontario's "Northern Heritage" program.

Commercial units stand on towers at least 50 meters in height. A typical unit can be seen near the waterfront in Toronto. They require a minimum wind velocity of 6 meters per second to operate.

Similar to farm yard scale units, Hydro must allow for your connection onto the Provincial grid. You pay for the installation and all associated costs, as well as for an environmental study. Note that connecting lines to the main line are currently about $100,000 per km. Also, access must be good as huge cranes are required for the installation of the windmill.

To participate in "commercial" wind generation, a farmer could lease his land to a developer for 2 or 3 percent of the revenue generated. Recognize that some investors will only want to control the land base and may not plan to install a generator, a process that will likely take 2 or 3 years. Be sure to have legal assistance before you sign any contracts!

Another opportunity is for a group of farmers to form a "Wind Co-Op". As a group, borrow the money yourself and install your own generator on a member's farm. Only the best sites should be used and not every farmer will have a generator on his land, but every member will get a portion of the profits. This has been successful in Europe. Best potential sites in the North-East appear to be St. Joseph & Manitoulin Islands, and south of Lake Nipissing. Refer to the "Wind Resource Atlas" on the Ontario M.N.R. website.

Remember, you must obtain approval from the municipality, the electrical safety authority, NAV Canada, as well as both the Federal and Provincial environmental agencies. Also recognize that these units should not be installed near bird sanctuaries or known migratory bird flyways, and definitely not near cottages. Keep at least 500 meters away from houses, and consult with all neighbours.

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OSCIA News. . .

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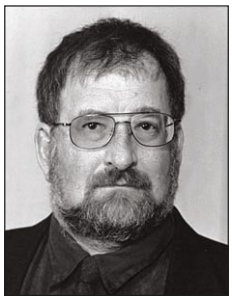
Message from the President



Keith Black

The Environmental Farm Plan has had an extremely busy winter and spring with record numbers of workshops completed and plans reviewed.

The signing of the Oak Ridges Moraine agreement will provide 1.4 million dollars to enhance selective Best Management Practices for producers within the moraine Keith Black and will be administered by OSCIA. This may serve as a pilot for partnerships that could be formed with other funding organizations to keep administration costs down and provide extra environmental dollars to producers in other areas.

Spring planting is now complete for most crops. The corn crop is off to an excellent start and although nipped with frost on the 23rd of May, it should do little harm.

Soybeans should soon all be planted, followed by the edible beans. Haying is also under way.

There have been a good number of plots planted and projects started with the focus on several areas - seeding rates, tillage, crop protection demonstrations, manure management, etc. These projects will provide numerous opportunities for summer twilight tours, forage days and meetings. The Biodiesel project is up and running in six regions with plans being finalized for field days to be held during the summer. I hope you will be able to attend one of these days. The Ontario Forage Masters program has had an excellent response with 204 entrants from 22 counties.

We have excellent staff at head office and in the field delivering our programs. Our RCCs and OMAFRA staff are doing a great job of organizing and completing plots and projects.

Membership is the heart of any organization and we are always delighted to see members take an active part in projects and demonstrations. Be sure to contact your local Soil and Crop Association to offer assistance, take part in a project or participate in planned events. Show your support to your local Soil and Crop, learn something new, have fun and enjoy the fellowship.

I look forward to attending upcoming events throughout the summer and fall, and meeting with many of you.

Middlesex SCIA Major Grant - 2006

Getting More Out of Manure Nitrogen: Direct Injection vs. Broadcast and Incorporation

Purpose: The purpose of this project was to examine the potential for direct injection manure systems to result in significantly higher manure nitrogen use efficiency than traditional broadcast and incorporate systems. Direct injection systems have distinct advantages in terms of reducing odour from field applications of manure but little data is available to indicate the increase (if any) in the actual nitrogen credit to the following corn crop.

Methods: Field scale plots consisted of late summer and fall applications of manure where the following comparisons where made: 1) Direct injection, 2) Surface application with incorporation by tillage in the range of 1 to 5 days following application, and 3)No manure application. Soil nitrogen levels were measured in the period following manure application and will be monitored throughout the early part of the 2006 growing season. Corn will be grown on all plots in 2006 using the farm co-operators normal practices for all aspects of production except nitrogen rate. All plots will be split at sidedress time to receive either Zero Nitrogen or Full Rate Nitrogen. Corn harvest from these plots will provide information that indicates how much N was utilized by the crop from the various manure application systems.

Results: Soil sampling in the post application window at the project sites indicates some increases in available N due to injection at one of the sites.

Summary: Manure injection may increase manure N use efficiency compared to broadcast systems. Of the four sites included in this study to date the Lucan site showed nearly a 50% increase in nitrate N in the fall after an August 30 application. At the other sites where applications dates where later in the season, and where a less aggressive injection tool (Yetter) was employed, these advantages to injection did not exist.

Project Contacts:

Dean VanArenthals, Middlesex SCIA; Peter Johnson and Greg Stewart, OMAFRA

OSCIA News...

OSCIA Annual Meeting

Ruth Knight, RCC, Heartland Region

A number of excellent speakers were featured at the Annual Meeting in February. Their presentations will be summarized in each issue of OSCIA News in 2006. Following are summaries of a few of the speakers, as seen by members of the OSCIA Regional Communication Coordinator team.

Dr. Alejandro (Alex) R. Jadad, Director Centre for Global eHealth Innovation, presented a segment on "Agriculture, Consumers and Health: A Needed Partnership for the Information Age".

Dr. Jadad's talk has been summarized here for you by Ruth Knight, RCC for the Heartland Regional SCIA.

Dr. Jadad opened his presentation by relating a very personal story concerning obesity in his own family. In this century, the main determinant of the health of our children and grandchildren is childhood obesity. The objective of Dr. Jadad was to share with OSCIA, an organization with a mission statement which focuses on the health of soil, water, air and crops, a vision to ensure our children live a long and healthy life.

To help the audience bring together the complex and diverse interests of agriculture, consumers and health, Dr. Jadad posed a number of challenging questions. He concludes that agriculture, health and education have to talk to each other and need to join forces nationally in order to meet this challenge.

Question #1

What should we eat? Is your menu chosen for health or to be politically correct? He made a confession; "we in the medical field don't have a clue!" While medical research and training concentrates on fixing people who are broken, less than 2% of the dollars are spent on nutrition. Are the food guidelines any help? While the US spent $2.4 million developing the food pyramid approach to the USDA guidelines (ref MyPyramid.gov) critics say that the emphasis on carbohydrates is to encourage Americans to eat their surplus supply of grains. The revised Canadian food guidelines have not been released because of the recent federal election. If you were not confused already, what about an 8 year study that concluded that a low fat diet doesn't add benefit in terms of changing rates of cancer or heart disease? (J of Amer. Med. Assoc'n. Wed Feb 8/06).

Question #2

What should I believe? Dr. Jadad did a search on the internet using the key words "food" and "health". He got 980 million hits in less than 1 second. The information is increasing and he concludes that unless we join forces we won't decide. The biggest interest in food in terms of money is from the fast food and confectionary sector. The pharmaceutical industry is another example of showing how fragile research is. Most pharmaceutical research is not clean with 99% of the research having a bias, being irrelevant or both.

Question #3

Is GM food safe? Dr. Jadad spoke of his concerns about the recent WTO ruling in support of claims by US, Canada and Argentina that the Europeans have created an unfair barrier to GM food. The ruling is based on the lack of proof of harm of GM food. He said "it is in the eye of the beholder." While 5% of Americans consider GM a safety concern, 54% of the citizens in 25 EU countries consider GM dangerous. Those of us involved in agriculture are challenged to get the right information to consumers and provide them with confidence that we are doing the right thing.

Question #4

Is organic food more than a fad? Organic food is the fastest growing segment of the food industry. The demand is driven by the public's perception for goodness. Researchers have completed comparison studies and the conclusion is "We really don't know if organic food is healthier."

Question #5

What about functional foods? These are foods which claim to make our health condition better. Herbal products were used an example. A telephone survey in February 2005 by Health Canada found that 71% of Canadians used a natural health product at some time and 38% use them on a daily basis. What does this tell you when 50% of Canadians are functionally illiterate about health and 26% of Canadians don't know how to take medicines properly?

Breaking Ground

(in Northeastern Ontario)

OSCIA News. . .

Oak Ridges Moraine Project

OSCIA President Keith Black (centre) receives a $1.4 million cheque from Oak Ridges Moraine Foundation Chair Russ Powell (right) on April 13, 2006. Jim Kelleher of Lower Trent Conservation is on the left.

The funding is committed over two years to top-load selected beneficial management practices (BMP) for a combined cost-share of 90 per cent for eligible farmers on the Oak Ridges Moraine.

The top load builds upon opportunities already available through the Environmental Cost-Share programs associated with the Environmental Farm Plan (EFP).

The Oak Ridges Moraine Environmental Enhancement Program will be delivered by OSCIA. Conservation Ontario is also a partner in the initiative, providing on-farm technical assistance when requested by farmers. Representing Conservation Ontario at the media event at OCALA Orchards Farm Winery in Durham was Jim Kelleher from Quinte Conservation.

Producers in the Moraine interested in finding out more about this terrific cost-share opportunity should speak to their county OSCIA Program Representative.

Association Activities

Bayer CropScience and OSCIA offer free admission and brunch to Canada's Outdoor Farm Show! Please plan a day learning in Woodstock, Sept 12, 13, or 14th!

Look for a direct mailing late in August with a free admission and brunch ticket for each OSCIA member and a free brunch ticket for you to bring a friend. Sign them up to be a Soil and Crop member! Is there a young farmer on your concession that could benefit? Enter your names to win door prizes, and expect the latest tips and information on crop management at the OMAFRA/OSCIA site! See you this fall!

A new OSCIA membership committee has been formed to assist local Soil and Crop Improvement Associations increase membership. OSCIA provincial directors Alan Kruszel (Grenville, Dundas, Stormont, Glengarry), Alvin Topp (Haldimand, Niagara North & South) and Janet Parsons (Nipissing West & East, Parry Sound, Muskoka) and Deanna Deaville of the OSCIA staff are the committee members. Feel free to contact them with your ideas, suggestions or questions.

A Biodiesel project update for the regions of St. Clair, Thames Valley, Heartland, Quinte, Ottawa-Rideau, and North East District have a cooperator trialing 5% biodiesel on-farm. All cooperators have received the biodiesel and have begun using it for spring work.

An evaluation of the "GreenSeeker" optical sensor technology used for on-the-go N application on corn has been started this spring in both Elora (north of Guelph) and Ottawa. First year results will be available this fall/winter.

A new grant sponsored by Bayer CropScience was announced this spring for sites within Huron, Middlesex, Stormont, Peterborough and Norfolk. This grant provides a maximum of $300 to the regional SCIAs covering those counties for field demonstrations of a new herbicide from Bayer CropScience called 'Option 1-2-3'. Farmer members will work with BCS over the summer on the 'Farm Research Permits'. Trials will be included on a summer tour this year.

OSCIA Annual Meeting

Question #6

How should we handle subsidies? Trade subsidies have created a lot of distortions in the food system. The promise of GMO to eliminate hunger has failed on a global scale.

Question #7

Is civilization a deadend trap? Dr. Jadad recommended two books which shed a gloomy picture on the direction we as a civilization are heading: 'Collapse' by Jared Diamond and 'A Short History of Progress' by Ronald Wright. Their conclusions leave us all with a number of questions and challenges.

Question #8

Can we re-connect food and life? Agriculture has a role to play in the re-connection of food and life. It depends on the decisions we make.

Dr. Jadad informed us in a number of areas. He posed a number of questions. In conclusion Dr. Jadad asked "Are we ready for the challenge?"

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

Additional Information from OMAFRA

Refer to the OMAFRA Website (see above) for the following topics of interest:

Yellow Soybeans – Is it Mn Deficiency?

Can Foliar Fungicides Bump Edible Bean Yields and Quality?

FRENCH? All information in english from OMAFRA is also available in french at: www.omafra.gov.on.ca

Brought to You by the Following OMAFRA Crop Specialists

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Weed Management Program Lead

Hugh Martin
Organic Crop Production Program Lead

Horst Bohner
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Entomology, Field Crops Program Lead

Editor: Joel Bagg, Forage Specialist

Will Fusarium be a Problem in 2006?

by Scott Banks, Emerging Crops Specialist, OMAFRA, Kemptville

That's a $1 million question! The month of May had double the normal rainfall in some areas. What's in store for June? Fusarium infection in wheat is very much dependant on the weather that occurs around the time that the wheat heads and begins to pollinate.

In 2006, a lot of spring wheat was planted 1 to 2 weeks earlier than most years, so the spring wheat crop will also be heading earlier than normal. How much earlier will depend on the field's planting date and the temperatures in June. In most parts of the province, spring wheat normally heads during the last week of June or the first week in July. For those fields that were planted earlier this year, start watching for the risk of fusarium infection in mid-June.

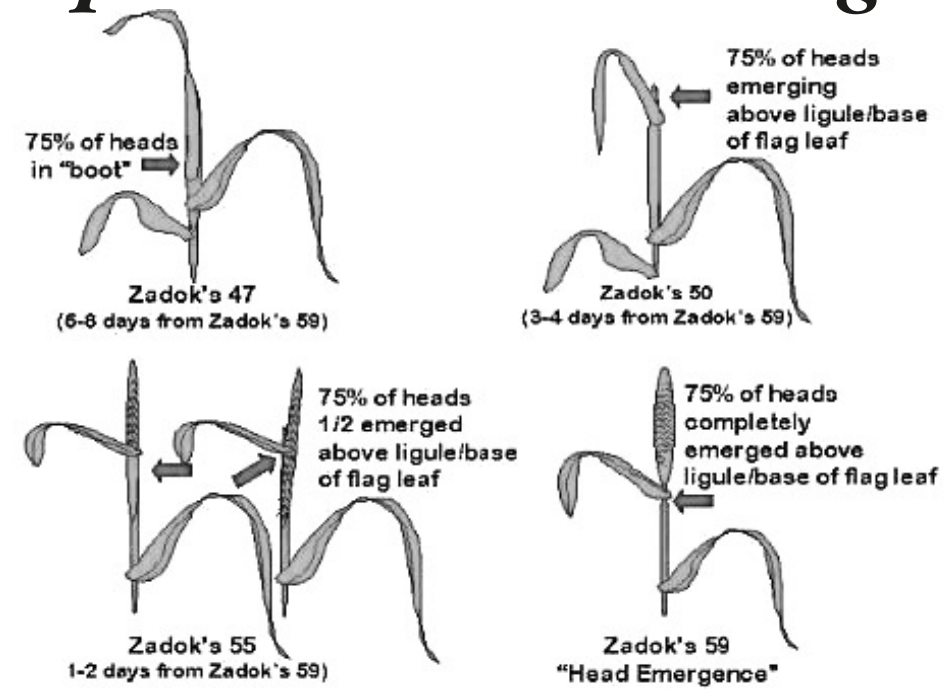
Prediction Maps

The weather conditions 7 days prior to the wheat heading and for 5 to 10 days after the wheat heads have emerged are critical for fusarium infection. Deoxynivalenol (DON) is the toxin produced by the fusarium mould. DON (in ppm) prediction maps are available at www.ontarioweathernetwork.ca/lib/fusariume.cfm. Site specific DONCAST maps give a more accurate prediction using the field's crop rotation, wheat variety, planting date, soil type, and local weather conditions. The charge is $100 for three fields.

Breaking Ground

(in Northeastern Ontario)

Representative Zadok Stages



Control

Folicur is currently the only product registered for suppression of fusarium. It is applied from when at least 75% of the wheat heads on the main stem are fully emerged, to when 50% of the heads on the main stem are in flower. On-farm trials have shown an average of about 2 bushels per acre yield increase in spring wheat.

REMEMBER, it is important to monitor the growth stage of the wheat in your own fields to identify the time of head emergence (Zadok's 59) in order to select the proper map for your field listed on the website.

Does Manure Have a Place in the Sulphur Debate?

by Christine Brown, Nutrient Management Field Crop Lead, OMAFRA, Woodstock

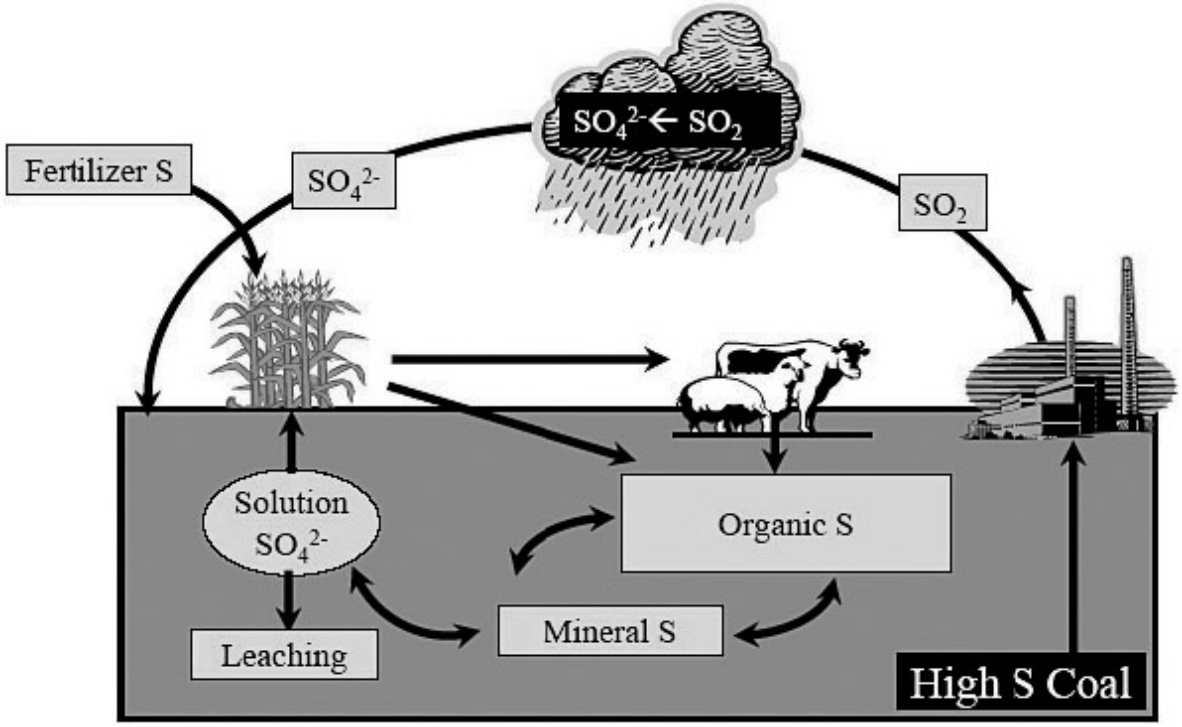
Sulphur is considered a secondary element, along with calcium and magnesium. Sulphur is required in moderate amounts by plants, but is less likely to limit crop growth than nitrogen, phosphorus or potassium. There has been renewed debate about sulphur requirements for crop production in Ontario, due to the reduction of sulphur deposits through acid rain. Where does manure fit into that debate?

Manure and biosolids contain sulphur. The process of sulphur availability is similar to the process of nitrogen availability from manure. Manure contains sulphur in both organic and inorganic forms. A portion of the sulphur in manure will be readily available as sulphate (SO_4^{2-}). The other portion that exists as organic sulphur must be converted (mineralized) to sulphate by soil microorganisms before it can be utilized by plants. Most of the sulphur in the soil is in the organic matter

Sulphur content in manure varies similar to other nutrients, based on livestock type, manure type (liquid vs. solid), bedding type and ration. There is limited analysis data for sulphur in Ontario. Early estimates from a small sample size suggest that in most manure types 25 to 30 percent of the total sulphur is readily available as sulphate. For poultry manures almost all the sulphur is in sulphate form, and early estimates reveal 5 lbs per ton.

Information collected from the USA (American Society of Agronomy Crop Science and Soil Science) and shown in Table 1 estimates the total and available sulphur content from different livestock types.

Sulfur Cycle



Source: Pennsylvania State University

SO2 = sulphur dioxide
SO42-= sulphate

Table 1: **Estimate of Available Sulphur from Manure by Animal and Manure Type**

Livestock Type	Sulphur Content			
	Solid Manure (lbs/ton)		**Liquid Manure** (lbs/1000 lmp gal)	
	total	available	total	available
Dairy	1.5	0.8	3.5	1.9
Beef - all types Feedlot[2]	1.7 4.9	0.9	4.0	2.2
Beef - all types Feedlot[1]	2.7	1.5	6.3 2.7	3.5
Poultry	3.2	1.8	7.5	4.2

Source: ASA-CSSA-SSSA- Alfalfa production guide

[1] 2001 summary of 92 feeder hog samples (M. Fitzgerald and G. Racz – AgriFood Research & Development Initiative)

[2] 2002 summary of 173 solid beef feedlot samples (B. Olson, Alberta Ag)

There is variation in the amount of sulphur found in manure depending on livestock type, application rate and frequency of application. The debate of sulphur needs for Ontario crops will continue with interest while awaiting side-by-side plot results. However, fields that are manured on a regular basis, with good organic matter levels will not be likely candidates for sulphur deficiency.

Pasture Growth and Quality

bu Jack Kyle, Grazier Specialist, OMAFRA

Forage growth and quality goes through a transition during the growth cycle. At the beginning of the growth cycle, the forage quality is high but the yield is very low. As the plant matures there is a significant increase in the forage yield but an accompanying decline in forage quality. The pasture manager's goal is to have livestock consume the forage at the point where there is optimum yield of quality forage to produce the best livestock performance.

Early Growth

During the early growth phase (1-2 leaves), forage quality will be over 20% protein. This is higher than livestock requirements and the extra protein will be lost in the urine. Even 16% protein levels can adequately promote optimum livestock production. In this early growth stage, the photosynthesis level is low and much of the growth is produced from root reserves.

Optimum

The ideal harvest time for pasture grasses is after the third leaf has emerged and before the seed head emerges. Pasturing at this stage will give the optimum yield of forage that is of sufficient quality to support optimum growth of the pasturing livestock. For domestic cool season grasses this will represent a forage height of 10-14 inches.

Coupled with this optimum quality and yield stage are several other factors that will contribute to optimum growth. Plant root systems tend to be a mirror image of the top growth. The more height and density to the visible forage, the greater the root mass and the deeper the roots will penetrate the soil. This larger root system will enable the plant roots to find water as dry conditions develop and continue to grow and thrive as the soil surface becomes dry. The deeper roots have the advantage of growing in cooler soil. Cool season plants will start to go dormant if soil temperatures rise too high. If the top growth is kept short, roots are shallow, and this will result in slower growth with no drought and heat tolerance. If there is no plant residue and very limited top growth there will be bare soil exposed that will be prone to overheating and evaporation This also results in reduced plant growth and early onset of drought conditions.

High Yield & Low Quality

At the other end of the scale is the high yield and low quality scenario that happens once the seed heads emerge and mature. At maturity, the yield of dry matter is high but the feed quality has dropped significantly and will not provide the protein and energy to meet the needs of the livestock. At this stage much of the energy from photosynthesis is being directed to seed development rather than vegetative growth. Growth is slowed with very little accumulation of energy in the plant tissue.

For optimum plant growth and productivity it is important to harvest pasture forage at the 10-12 inch height and before any seed heads emerge. A forage residue of 3-4 inches should be left to support the root system and provide the photosynthesis for re-growth. If you follow these grazing guidelines you will optimize the forage quantity and quality that is produced in your pastures, as well as the livestock production.

Breaking Ground

(in Northeastern Ontario)

Harvesting The Cereal Nurse Crop As Silage

by Gilles Quesnel, Field Crop IPM Specialist, OMAFRA, Kemptville

There are good arguments for and against the use of a cereal nurse crop when seeding down alfalfa. While the cereal nurse crop provides some early season weed control and additional forage, it also has the potential of providing severe competition to the underseeded alfalfa crop. As well, the stage of maturity of the cereal crop at harvest is critical in determining the yield and quality of the cereal crop when used as forage.

The nurse crop can either be harvested as silage at the late-boot to early-heading stages, or as grain in August with the straw baled. This year, most new alfalfa seedings are well established, but lush cereal growth is likely to provide intense competition to the new seedings. Consequently, if forage feed is needed, removing the nurse crop as silage may be the best option. Removing the cereal competition early in the summer will also allow the alfalfa to establish quickly, giving the opportunity of a second cut by summer's end.

From a feed value stand point, when harvesting the crop as silage, best results are obtained when the cereal crop is harvested early. The ideal time to cut the cereal nurse crop is at the boot (just before heading) to early-heading stage, which usually is about 50 days after planting. It is often tempting to delay the harvest of the nurse crop given that dry matter yield of the cereal increases by about 50% from the boot stage to the milk stage. But, research at New Liskeard campus, University of Guelph demonstrated that as cereal maturity progresses from the boot stage to the milk stage, the in-vitro digestibility of the crop drops from approximately 80% to 60%, crude protein drops from above 17% to 10%, while ADF increases by about 20%. Once the cereal crop reaches the milk stage and beyond, it becomes high in fibre and low in digestibility, dropping significantly in feed value. Additionally, a cereal nurse crop at the late-milk stage or dough stage is difficult to ensile since the moisture content of the plant drops too low for proper fermentation.

As for harvest management, cereal grains mature rapidly around the heading stage. As such, harvest of a cereal nurse crop as silage should begin slightly ahead of the harvest maturity stage desired.

Wide Swath Haylage

by Joel Bagg, Forage Specialist, OMAFRA, Lindsay

Wide swath haylage to achieve "haylage-in-aday" and improve forage quality is a management practice we are hearing more about. This is contrary to the more typical practice of using the mower-conditioner to place the swath in a narrow windrow for a day or two of wilting, and then chop directly. Wide swath haylage requires some innovation and significant changes in both equipment and management, but research indicates that improvements in forage quality can be quite impressive.

Respiration Losses

Rapid wilting after cutting is critical to minimize the often significant respiration losses of sugars in high quality haylage. This is especially true for higher yielding first-cuts. Plant respiration continues after cutting until about 60 - 65% dry matter, when the cells are actually dead. Respiration converts stored carbohydrates (starch and sugar) to carbon dioxide, heat and moisture, and causes dry matter losses and increased fibre percent. Forage that is higher in the soluble carbohydrates will have greater digestible energy, but also can provide more readily fermentable substrate to lactic acid bacteria resulting in better haylage fermentation. The longer the wilting period in the field, the greater the respiration losses (less sugars), and the lower the forage quality.

Wide Swaths

Wider swaths dry faster, so adjusting the mower to leave as wide a swath as possible makes sense.Research by Tom Kilcer, Cornell University

Breaking Ground

(in Northeastern Ontario)

Wide Swath Haylage

Temiskaming Cattlemen's Association

Ruth Snider
(705) 647-5937

Extension, indicates that wide swath width (85% of cutter-bar width) and sunlight (cutting in the morning) are the keys to fast wilting for haylage high in digestible energy and improved fermentation. Freshly cut forage doesn't know it's dead yet. Carbohydrates gained from photosynthesis in a wide swath exposed to sunlight typically exceeded the respiration losses. The Cornell research indicates that wide swaths can significantly improve forage quality, consistency and "milk-per-ton" of haylage. Milk per ton was improved by 300 lbs. As a bonus, haylage-in-a-day also reduces the risk of rain-damage!

Impact of Conditioning & Sunlight on Wilting

Swath width is typically limited by the width of the conditioner on the mower. So if I have to forego conditioning to widen the swath, doesn't that negate any advantage of having a wide swath? According to the Cornell research, conditioning actually reduced wilting speed in wide swaths at haylage moisture levels by disrupting the capillary flow and evapotranspiration of moisture through the stems to the stomata (pores) in the leaves.

In a narrow dense windrow, the stomata close, so conditioning is an important drying mechanism. On the other hand, if you have a wide swath and sunlight to keep the stomata open, you can forego conditioning in a haylage system. With wide swaths, conditioning would not become a requirement until the stomata close when moistures fall below 60-65% when making dry hay.

Conditioning stems is extremely important at lower moistures in making dry hay. Strategies for wilting silage are quite different than dry hay making, but wide swaths are advantageous for both.

Stomata are generally open during the day and closed at night (or on the bottom of a tight swath). A wide swath maximizes exposure to sunlight, which keeps the stomata open and maximizes exposure to solar radiation (heat and lower humidity). Contrary to some western research, in Ontario conditions with high humidity and warm nights, respiration losses during the night exceed the extra sugars expected by cutting late in the day.

Equipment Changes & Modifications

Of course, wide swaths will likely require that the swaths be moved and narrowed for chopping. This is an obstacle preventing many from making wide swath haylage. Some are adopting the use of windrow mergers that use a pickup and belt (similar to an inverter, but wider) rather than rakes, in order to reduce the risk of rocks, clostridia and ash. A rock in the chopper is a huge problem to be avoided. Combining two or more windrows into one with a merger creates the need for an extra field operation, but it also increases chopper capacity and speed. Moving an "almost ready" swath with a merger also speeds wilting. A merger is cheaper and faster to run than a harvester.

There is some concern about driving on a wide swath. The Cornell research indicates that in a wide swath situation, driving on the cut swath with the tractor is not an issue that significantly affects drying. However, there may be some potential for soil contamination that adversely affects fermentation, particularly in wet field conditions. Tractor tires can be set as wide as possible.

Before purchasing wide swath haylage equipment, it is important to consider the compatibility of the:

- mower (or mower-conditioner) swath width,
- merger pick-up width, and the
- forage harvester pick-up width.

For many of us, swath width is currently limited by the width of the conditioner on the mower. If a narrow swath mower can be modified to lay a wide swath without conditioning, this could improve wilting speed. Most mower-conditioners have an easy swath width adjustment. Ron Schuler (Extension Engineer, University of Wisconsin) reports that the average maximum swath width on the North American market is 61.4% of the cut width, with a range of 28 to 87%. Self-propelled widths are usually narrower. Swath width percentage should be a consideration when purchasing a new mower. The wider the better!

Bottom Line

Bottom line for wide swath haylage - cut as wide as possible and cut in the morning. The full adoption of wide swath haylage will require some machinery innovation and modification on the part of forage equipment companies and farmers. In the mean time, open your mower as wide as practical.

Breaking Ground

(in Northeastern Ontario)

Weather Weenies We Are!

by Ian McDonald, Applied Research Coordinator, OMAFRA, Guelph

Canadians love to talk about the weather, especially those of us in agriculture. It controls our lives more than any other sector of the economy. You can cut a tree, be a tourist, build a widget, or shop in any weather, but not so in farming. Since our lives are so dependent on the weather, let's look at some practical aspects of finding the weather information we need.

High-Speed Access More Available

The graphical nature of websites often makes dial up too slow and almost impossible to use for "web surfing" without access to high-speed internet. I am encouraged that high-speed access is becoming more available in the rural areas and at a more reasonable cost. If you have been discouraged in the past by lack of access to high-speed in your area, it might be time to revisit this, as a lot has changed in the last year.

My Favourite Weather Sites

Weather information is everywhere, but where is the stuff we really need. We are interested in forecasts, weather warnings, satellite/radar imagery, and often historical data (ie how much rainfall did we get last week).

Most internet sources of Ontario weather utilize information from Environment Canada (weatheroffice.ec.gc.ca/canada_e.html), which also makes various weather products available to the general public. I use these sites, but prefer other resources and others to find the information I am interested in. Other resources are better for radar/satellite imagery.

Farmzone.com

One of the best sources of weather data for Canadian agriculture is available through the Weather Network (www.theweathernetwork.com). They have a site called Farmzone.Com (www.farmzone.com) that provides excellent information for us.

Lets work our way through this site to see what it can provide us with, weather wise. From the home page at www.farmzone.com, click on "Southern Ontario" (Figure 1). Then at the next screen click on the specific area you are interested in -example London (Figure 2).

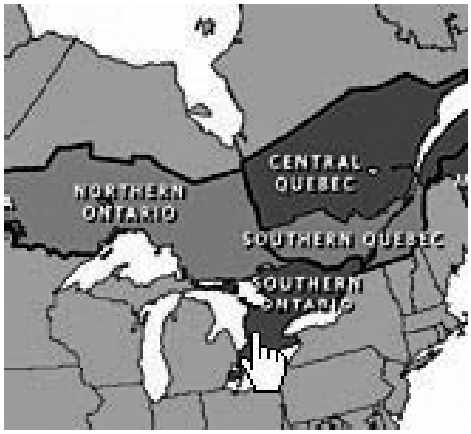


Figure 1 - **Southern Ontario**

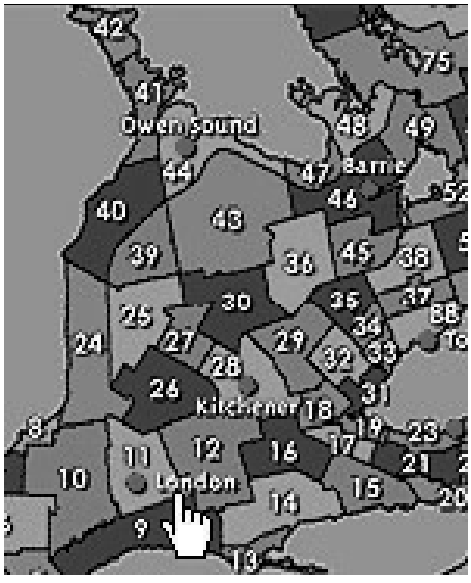
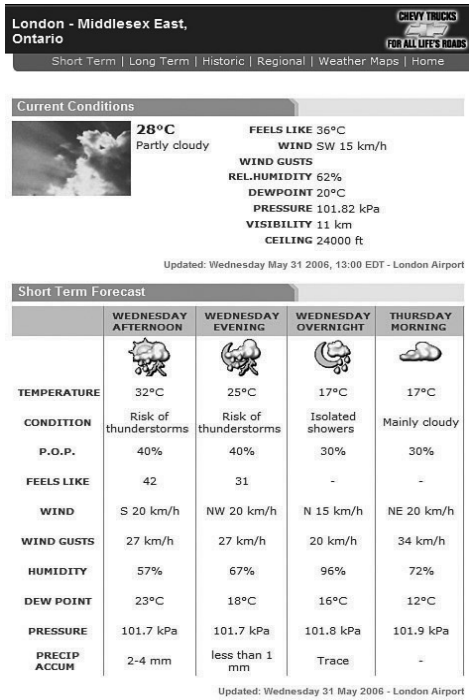


Figure 2 - **London**

You are then presented with the local forecast and can select from various options as detailed in Figure 3 (note the cursor arrow). This screen also shows you the "Planning Forecast For Tomorrow" information highlighted in Figure 4. You can also access the "Long Term Forecast" (Figure 5), "Historical Data" (Figure 6), "Regional" and "Weather Map" resources.



London - Middlesex East, Ontario

Short Term | Long Term | Historic | Regional | Weather Maps | Home

Current Conditions

28°C Partly cloudy

FEELS LIKE 36°C
WIND SW 15 km/h
WIND GUSTS
REL.HUMIDITY 62%
DEWPOINT 20°C
PRESSURE 101.82 kPa
VISIBILITY 11 km
CEILING 24000 ft

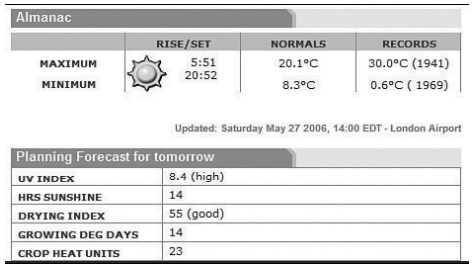
Updated: Wednesday May 31 2006, 13:00 EDT - London Airport

Short Term Forecast

	WEDNESDAY AFTERNOON	WEDNESDAY EVENING	WEDNESDAY OVERNIGHT	THURSDAY MORNING
TEMPERATURE	32°C	25°C	17°C	17°C
CONDITION	Risk of thunderstorms	Risk of thunderstorms	Isolated showers	Mainly cloudy
P.O.P.	40%	40%	30%	30%
FEELS LIKE	42	31	-	-
WIND	S 20 km/h	NW 20 km/h	N 15 km/h	NE 20 km/h
WIND GUSTS	27 km/h	27 km/h	20 km/h	34 km/h
HUMIDITY	57%	67%	96%	72%
DEW POINT	23°C	18°C	16°C	12°C
PRESSURE	101.7 kPa	101.7 kPa	101.8 kPa	101.9 kPa
PRECIP ACCUM	2-4 mm	less than 1 mm	Trace	-

Updated: Wednesday 31 May 2006 - London Airport

Figure 3 - **Local Forecast & Current Conditions**



Almanac

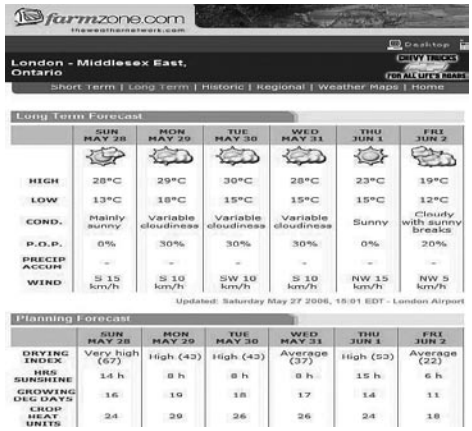
	RISE/SET	NORMALS	RECORDS
MAXIMUM	5:51	20.1°C	30.0°C (1941)
MINIMUM	20:52	8.3°C	0.6°C (1969)

Updated: Saturday May 27 2006, 14:00 EDT - London Airport

Planning Forecast for tomorrow

UV INDEX	8.4 (high)
HRS SUNSHINE	14
DRYING INDEX	55 (good)
GROWING DEG DAYS	14
CROP HEAT UNITS	23

Figure 4 - **Almanac & Planning Forecast For Tomorrow**



farmzone.com

London - Middlesex East, Ontario

Short Term | Long Term | Historic | Regional | Weather Maps | Home

Long Term Forecast

	SUN MAY 28	MON MAY 29	TUE MAY 30	WED MAY 31	THU JUN 1	FRI JUN 2
HIGH	28°C	29°C	30°C	28°C	23°C	19°C
LOW	13°C	18°C	15°C	15°C	15°C	12°C
COND.	Mainly sunny	Variable cloudiness	Variable cloudiness	Variable cloudiness	Sunny	Cloudy with sunny breaks
P.O.P.	0%	30%	30%	30%	0%	20%
PRECIP ACCUM	-	-	-	-	-	-
WIND	S 15 km/h	S 10 km/h	SW 10 km/h	S 10 km/h	NW 15 km/h	NW 5 km/h

Updated: Saturday May 27 2006, 15:01 EDT - London Airport

Planning Forecast

	SUN MAY 28	MON MAY 29	TUE MAY 30	WED MAY 31	THU JUN 1	FRI JUN 2
DRYING INDEX	Very high (67)	High (43)	High (43)	Average (37)	High (53)	Average (22)
HRS SUNSHINE	14 h	8 h	8 h	8 h	15 h	6 h
GROWING DEG DAYS	16	19	18	17	14	11
CROP HEAT UNITS	24	29	26	26	24	18

Figure 5 - **Long Term Weather Forecast**

Breaking Ground
(in Northeastern Ontario)

Weather Weenies We Are!

continued from page 20

From the "Historical Data" (Figure 6) which you access via the "Historic" selection beside the "Long Term" forecast, you can find information for any specific day in the past (note #1), or the precipitation and heat recorded over a number of days (note #2). One caution is that there is no warning if daily information is missing from the period within the range you have chosen. I have spoken to Farmzone and they are hoping to rectify this problem by fall.

Radar & Satellite Images

Radar and Satellite images enables us to see what weather is coming our way. I prefer to use The Weather Channel (www.theweatherchannel.com) or Intellicast (www.intellicast.com) images.

A brief list of urls is included. The best option is to go to the respective home page, type in a US location close to you, and then select the radar or satellite images. Using Port Huron MI, Erie PA, Niagara Falls NY or Watertown NY gets almost full coverage of Ontario. These sites give a clear view of where the rainfall and cloud cover is and are very useful in determining or instance, if you can get that last 20 acres planted before it rains.

Remember, you can add any of these weather pages to your "favourites" listing in your web browser allowing you to go directly to these pages at any time.

Figure 6

http://www.weather.com/maps/maptype/satelliteusnational/northeastussatellite_large.html	this one is for satellite of northeastern NA
http://www.weather.com/maps/maptype/dopplerradarusnational/ northeastradar2100mile_large.html	north east radar at 2100 miles
http://www.weather.com/weather/map/USMI0684?name=index_large&day=1	local radar at Port Huron, MI
http://www.weather.com/weather/map/USNY1010?name=index_large&day=1	local radar at Erie, PA .

Breaking Ground

(in Northeastern Ontario)

Ontario Forage Expo 2006

by Hugh Martin, Organic Crop Production Program Lead, OMAFRA, Guelph

"Ontario Forage Expo" is co-sponsored by Ontario Forage Council & Georgian Central Regional Soil & Crop Improvement Association.

It will be held on Thursday, July 20th, 2006 at the farm of Mel & Wilma Brouwer and Family at Marsville in Dufferin County.

This event will attract "in field" demonstrations from the major forage equipment companies and will also host a number of forage and related trade show exhibitors. Plans are also under way to have a number of key note speakers to address the audience on various topics. The related trade show exhibitors and key note speakers will be accommodated indoors.

Dufferin County 4-H has been invited to organize a BBQ on site. Everyone is invited to attend and bring your friends and neighbours.

This promises to be a Great Day - with No Admission Charge to the farm community.

For further information, visit the OFC web site at www.ontarioforagecouncil.com or phone the OFC office at 1-877-892-8663

Planning a Crop Rotation

by Hugh Martin, Organic Crop Production Program Lead, OMAFRA, Guelph

Now that summer is starting and the crops are well established, have you started thinking about next year? Do you have a planned rotation for each field? Does this include cover crops whenever possible? Organic farmers know that a good crop rotation is the basis of a good cropping system to allow them to maintain good pest control.

Disease

Good crop rotations help to develop healthy soils and are better able to suppress pests and improve the health of the crops. For example, there are approximately 50 diseases of beans (Phaseolis spp.). Crop rotation helps to eliminate about 33 of them, including bacteria and nematodes and nearly all fungi diseases. One of ways this works is that plant pathogen propagules have a lifetime in the soil, and a crop rotation that excludes host crops starves them out.

Diverse crop rotations lead to more diversity in the soil. Cover and rotation crops shift the composition of the non-pathogenic microbial community to be more suppressive to diseases. Many studies have shown Brassica cover crops to suppress diseases. It is felt that the glucosinolates, which break down to isothiocyanates, contribute to this, but there are also other compounds involved as well. Oat cover crops have also been shown to suppress root rot in peas.

Insects

Similarly, insects are suppressed by good rotations. When we grew a lot of continuous corn 25 years ago, even second-year corn needed a corn rootworm insecticide. During the past decade our use of corn rootworm control has declined to a fraction of usage in the 1980's due to the fact that we now rarely grow corn-after-corn.

Weeds

Crops can be planted in either spring or fall, which alters their abilities to compete with weeds. Related tillage activities can also kill germinating weed flushes in spring or fall. Cereals crops are planted in narrower rows which help them canopy and outcompete weeds. Forages crops are cut several times each summer which is an excellent way to suppress many perennial weeds.

Spread The Workload

A good crop rotation also spreads out the workload, which is a labour saving in the overall operation of the farm. Improving your crop rotation may also let you increase the size of your farm within your existing resources of labour and equipment.

Having a good crop rotation will make you money, both by increasing yield and by decreasing costs. Crop rotation takes planning to make sure it meets the needs of the farm and the flexibility to allow you to take advantage of market changes.

Action: Plan your cover crops and crop rotation for 2007 and 2008 now!

Breaking Ground
(in Northeastern Ontario)

CLASSIFIEDS

Contact Graham Gambles to run your ad in our upcoming issues!

FAX: 705 672-5959

Berry Production Equipment For Sale

Call 705 672-3105

1) 12 Pint & 6 Qt. "Masters" (Bundles of 25)
2) "Floating Mulch" (1.5 oz winter cover) Rolls of 48' x 300'
3) Electric Fencher - 2 sets with "Flexi-net" & posts for 100 ft run (apiary)
4) Blueberry Fan / Cleaner (USED 2 YEARS) Production model from Maine Blueberry Equipment - independant gas engine

Previously Owned Farm Machinery & Equipment For Sale

1-1996 MF Tractor Model 362 - 55 hp. - 1,730 hours
1-2003 MF Tractor Model 6280
1-Baler - New Holland
1-Wrapper
1-Liquid Manure Pump
1-Liquid Manure Tank - 3,000 gallons
2-Crib Feeders
1-Disk Harrow
- 13' John Deere
3-Hay Wagons
1-Feeder Wagon
1-Haybine - John Deere - 12 ft long pivot
1-Feed Mill
- New Holland
1-Plow - Kverneland (3) roll over Model ES95
1-Rake - Stoll Model No. R3354DS

Please Call: (705) 753-1729

Small Scale Potato Production & Packaging Line

(Suitable for about 100 Acres)

For Further information & prices or to view the equipment call **800-362-9816** (within Area Code 705) or 705-672-2444.

Bids preferred on the complete line. Any equipment not sold, an auction will be held in New Liskeard in mid-July.

2 – 85 White 2WD with cab

4 Row Lockwood Planter

4 Row Gruse Hiller

Lockwood Bin Piler

Grimme GB1700 2 Row Harvester

Farm Wagon Potato Box

Int 466 D Tandem Potato Box

Int 466 D Tandem Reefer

Complete wash and grading line ***

Tablestock & large bagging line

Auto feed Fishbein sewing line

1,000 potato boxes (SOLD)

Yale propane forklift

Other miscellaneous pieces

******* The complete Wash & Grading Line consists of 4 to 5 ton V potato box with drag chain, to a short 12 ft. elevator; then to a washer & foam roller drying system (no heat), to a manual grading/inspection table, then a potato sizer (large and tablestock), then a single hopper with 2 manual scale (for 10 & 20 lbs) bagging system, automated conveyor sewing system, and finally a round table prior to stacking bags on pallets. A separate scale and hand held sewing machine is used for the 50 lb large potatoes.

Most equipment is either Alliston Machinery or re-conditioned by Willsie Brothers.

Breaking Ground
(in Northeastern Ontario)

Temiskaming District will Host 2009 International Plowing Match

continued from page 1

Plowmen's Executive toured the sites and chose the most appropriate location for the Match.

"The International Plowing Match and Rural Expo is truly a unique event", explains Cathy Lasby, Assistant General Manager and Exhibits Co-coordinator for the Ontario Plowman's Association. "The IPM is an economic development engine for rural communities. The influence of the IPM to the communities in terms of leadership development and financial gain can be extraordinary.

The Concours du Labour du Temiskaming Plowing Match will be working closely with the local stakeholder group to provide assistance and guidance as the match is being organized. Local Dairy farmer Roch Loranger will assume the position of provincial director as representation on the province wide Ontario Plowmen's Board of Directors.

So mark the third week in September 2009 on your calendar and plan to attend the plowing match in Temiskaming, right in your own back Yard!

"Tent City" at the Pearth plowing match last year

FEELING LUCKY???
Well, you've won again!

Graham Gambles, NEOSCIA Communications Coordinator

Thinking about joining OSCIA but never got around to it? NOW is the time!

Bayer Crop Science and OSCIA offer free admission and brunch to Canada's Outdoor Farm Show, September 12, 13 & 14 at Woodstock.

Members of record on Aug. 01/06 will receive a free admission and a brunch ticket (as well as a second brunch ticket for a friend) by direct mailing in late August. ***This is a $30.00 Value!***

Send a cheque for $10.00 (2006 membership) to OSCIA, #1 Stone Road W., Guelph, ON N1G 4Y2, ***NOW!***

In an agreement with the advertisers and sponsors of this bulletin, NEOSCIA is happy to announce that everyone who is currently receiving ***BREAKING GROUND*** will continue to do so, whether or not they are a member of their District Soil & Crop Association. To meet the advertisers need, this letter is being sent to about 1000 farmers across the North East.

However, your local association can always use your support! Contact your neighbours listed below for further information!

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Cochrane (North & South):
Elna Blackburn (705) 272-6304
General Delivery, Hunta, P0L 1P0

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Muskoka:
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